

S. HRG. 108-814

**ABUSE OF ANABOLIC STEROIDS
AND THEIR PRECURSORS BY
ADOLESCENT AMATEUR ATHLETES**

HEARING

BEFORE THE

**SENATE CAUCUS ON INTERNATIONAL
NARCOTICS CONTROL**

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

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JULY 13, 2004
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ABUSE OF ANABOLIC STEROIDS AND THEIR PRECURSORS BY ADOLESCENT AMATEUR ATHLETES

TUESDAY, JULY 13, 2004

UNITED STATES SENATE,
CAUCUS ON INTERNATIONAL NARCOTICS CONTROL,
Washington, DC.

The Caucus met, pursuant to notice, at 9:52 a.m., in room SD-215, Dirksen Senate Office Building, Hon. Charles E. Grassley, Chairman of the Caucus, presiding.

Present: Senators Grassley and Biden.

OPENING STATEMENT OF HON. CHARLES E. GRASSLEY, U.S. SENATOR FROM IOWA

Chairman GRASSLEY. Good morning, everybody, and I appreciate everybody who has come, and we are getting started just a little bit early. Normally I do not start without a member of the minority present, but Senator Biden is the Vice Chairman here, and he commutes regularly. His train is a little bit late, but he gave permission for us to go ahead, so I am going to start.

For more than two decades, the use of steroids by professional athletes has been widely reported. Indictments against executive officers of a San Francisco area nutritional supplements lab—and these indictments were Federal steroid distribution charges—have brought even more attention to the use of steroids. Recently, accusations of world-class track and baseball athletes using steroids have hit the news. But steroid use often begins even before athletes achieve international recognition.

Today's hearing will focus on the availability of illegal steroids and, of course, on the pressures that young athletes face to use steroids to improve their performance. Anabolic steroids are easily purchased over the Internet, as well as from users who sell and distribute steroids in gyms. The ease with which anybody, including young people, can acquire these drugs, coupled with the high percentage of purchased steroids that are counterfeit, even heighten the severe health risks to the users.

Recent studies have shown that the use of illegal steroids has skyrocketed among high school and college athletes. Despite the widely publicized danger of anabolic steroid abuse, it is estimated that as many as 5 million people annually, even including 175,000 high school girls and 350,000 high school-aged boys, may be abusing these drugs to improve athletic performance, appearance, and self-image. In fact, those same studies have shown that some users

start even younger, first using steroids while they are in middle school. These children are taking drugs to gain immediate enhancement of athletic performance.

What has been most troubling is that some coaches, the very people we entrust to teach fair sportsmanship to our children and to care for their well-being, are promoting the use of steroids. The mind-set that winning comes before all else says to our kids that they should do whatever it takes to get bigger, to get stronger, and to get faster. Too often, young athletes see steroid use as the only way to comply with that coach's demand. Winning at all costs places too great a risk to the health of our children and undermines the element of fairness that we expect in sporting competition.

When I started to look at this problem, I was amazed at just how easy it is to get this poison. I found several websites where steroids and precursors can be purchased online. In fact, I found illegal steroids available on eBay! And if that is not bad enough, young athletes can buy the needles used to inject the illegal steroids directly into their bodies on eBay as well.

Example 1 that I show you here shows one of these sales on eBay where they advertise 1-inch needles to inject, and I quote, "DECA, D-BOL, TEST." These are all terms for illegal steroids. This web page also says that these needles, and I quote, are "a must for those with gear," and the word "gear" being a common code word for steroids.

A second example, also taken from eBay, shows just how easy it is to buy steroids. Now, notice the category at the top of the poster that says the drugs are listed under "Health and Beauty." Quite ironic, actually. We will hear from one witness, Dr. Catlin, a leading expert on steroids, about the clear dangers to the health of those who take these illegal drugs. We will also hear from Don Hooten, whose son, Taylor, committed suicide as a result of abusing illegal steroids. Now, when you get right down to it, what beauty is there in the death of a young student?

Again, example 2 offers the illegal steroid D-bol or Dianabol to any willing bidder. This fellow says that D-bol pills he is selling are, and I quote, "the real deal" and that he "used them personally and they're awesome." A personal endorsement, and according to this example, you get free shipping to boot!

We have example 3 that shows how easy it is to get injectable steroids on the Internet. This seller has 10 ampules of Sustanon and 10 ampules of Deca-Durabolin. That's referred to as "Deca." This seller tries to pretend that he does not know what these drugs will be used for when he says, and I quote, "For vet use only." What veterinarian would buy his medications on eBay?

Injectable steroids are particularly dangerous to young abusers who do not know how to inject needles correctly. Infections, nerve damage, and even deadly disease can occur from the use of needles. Injecting steroids directly into the vein or artery can cause serious health risks.

Others use clever tricks to hide their criminal intent. In example 4, this guy claims to be selling a "picture of D-bol." Just a picture. Included in the description, he tells the buyer the lot number and expiration date of the picture. Indeed, he says, "The picture comes

in a sealed container with free priority mail.” By the way, the picture sold for \$60.

In example 5, we see a seller who advertises a list of steroid distributors that he got from “steroidworld.com.” The seller says that he has “100 percent success rate” and that the sellers on the list will, and I quote, “use labels which will hide the package’s contents.”

So, I hope it is quite obvious and clear that these products are readily available. But to make matters worse, counterfeit steroids are also being sold widely. These fake drugs are very convincing in appearance. In front of us, you can see several examples of high-quality counterfeit steroids. Notice the quality of the packaging, labeling, and inserts that are on the table. These steroids are fake but convincing. We will hear more about this today from a former steroid distributor and user, who will testify that 95 percent of the steroids on the market are not genuine. Fake steroids have been known to have a mixture of cooking oil—can you believe this?—even motor oil in the package. Imagine a high school student injecting motor oil into his or her body.

I hope that today’s witnesses will help us all understand the problems here as well as some of the efforts being made to confront this menace. In addition to the testimony that we will hear today, we have also received written testimony from several different groups, which, if there is no objection, I will include in the record.

[The information follows:]

Home
Sports Nutrition Supplements
Links
About Us
Product Information
Contact Us
Privacy Policy
FDA AS Ban on prohormones

HouseOfMuscle.com



FDA TO BAN PROHORMONES!

FDA to Try to Stem Sales of Andro and Prohormones

An article by Associated Press writer, Lauran Neugegard, dated March 11, 2004, reported that the FDA is going to crack down on steroid-like supplements and prohormones (pro-steroids), including androstenedione, aka ANDRO, made famous by professional baseball great Mark McGwire.

The use of prohormones skyrocketed after McGwire said he used them in 1998, the year he hit a record-setting 70 home runs for the St. Louis Cardinals. He later said he quit taking the supplements.

These products are steroid precursors, which the body uses to make testosterone and other anabolic hormones.

Basically, the Food and Drug Administration has issued a warning telling 23 manufacturers to cease their production of these products.

In the article, Brad Stone, FDA spokesman, was quoted saying, "We're confident that we do have a clear legal basis" for the ban.

Anabolic steroids, which build muscle, are controlled substances. But prohormones – because they are precursors, not a steroid itself – have long been marketed as dietary supplements and sold over the counter.

But the FDA is citing a seldom-used provision of a law that defines a dietary supplement as a natural ingredient that was on the market before 1994 – and says manufacturers must prove that any new ingredients are safe before selling them as supplements.

The FDA contends that prohormones were not on the market in 1994 and thus its makers failed to follow the law's safety provision.

The FDA expects its action to at least temporarily halt prohormone sales. Meanwhile, Congress is considering legislation sponsored by Sen. Joe Biden, D-Del., that would permanently end over-the-counter sales of prohormones, as well as the newly unmasked steroid THG, and subject them to the same prescription restrictions that apply to anabolic steroids.

Health and Human Services Secretary Tommy Thompson urged Congress to pass the legislation, and baseball commissioner Bud Selig supports it.

In the meantime, Thompson said, "If firms refuse to cease distributing these products, we may seize products, pursue injunctions or seek criminal actions."

What this means for you as a consumer is that soon, and very soon indeed, prohormones will no longer be available for legal sale in this country.

If you use these products, or are thinking about using them, as I do, I encourage you to stock up now. As we have seen with the ban of ephedra, the FDA can and will act very quickly.

I have a limited supply of two prohormones – 10-NORANDROSTEN-3-17-DIOL and 10-NORANDROSTEN-3-17-DIONE.

I doubt very much that I will even be able to secure more of these products and it is very likely I will be forced to stop selling them before my limited supply even runs out.

Even though demand has already gone through the roof due to the impending ban, I refuse to gouge my customers, as I guarantee many supplement suppliers will now begin to do. My prices will remain low as long as my limited supply lasts and I am allowed to sell these products.

I sell them in bottles of 60 capsules and each capsule contains 100mg of pure prohormone. Each bottle is only \$25.99 and I also sell a 15 WEEK LEGAL STEROIDS CYCLE for only \$103.99 and a 15-WEEK LEGAL STEROIDS SUPER STACK for only \$207.92. So for the time being, you can continue to purchase these products through my online store at:

<http://www.HouseOfMuscle.com>

Respectfully,

Joel A. Sward Founder & Owner of HouseOfMuscle.com

Secure Online Ordering



[Back to list of items](#) | Listed in category: [Health & Beauty](#) > [Dietary Supplements](#) > [Nutrition](#) > [Sports Supplements](#) > [Other](#)
DBOL DK picture (winny deca) free ship | Item number: 5502092852

You are signed in
Bidding has ended for this item. Another buyer purchased this item using Buy It Now. (hurtec is the winner)

How did this happen? Another buyer used Buy It Now to purchase the item immediately. [Learn about Buy It Now.](#)



[Go to larger picture](#)

Sold for: US \$60.00
Ended: Jun-15-04 05:17:48 PDT
Start time: Jun-14-04 08:53:04 PDT
History: 1 bid (US \$60.00 starting bid)
Buyer: [hurtec \(18 ★\)](#)
 Auction ended early with Buy It Now.
Item location: Gilbert, AZ United States
Ships to: United States only

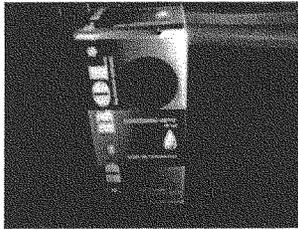
Seller information
[piehole2k \(120 ★\)](#)
Feedback Score: 120
Positive Feedback: 100%
 Member since Mar-19-01 in United States
[Read feedback comments](#)
[Ask seller a question](#)
[View seller's other items](#)

 **PayPal Buyer Protection**
 Free coverage up to \$500.
[See slobeltx](#)

[Shipping and payment details](#)

Description [\(more\)](#)

email me before you bid you are bidding on a picture of DBOL 10ml the picture has a exp of 9 2005 and lot db 004 its a perfect picture all sealed up free priority shipping



FREE Counters and Services from Anadele

Shipping and payment details

Shipping and handling: Standard shipping service: **FREE**
(within United States)

Shipping insurance: Not offered

We ship to: United States only.

Seller's payment instructions & return policy:
 paypal only

Payment methods accepted

Buy It Now payments:



Auction payments:



[Learn about payment methods.](#)

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Seller assumes all responsibility for listing this item.

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Back to list of items Listed in category: Health & Beauty > Dietary Supplements, Nutrition > Other

pink dbol, d-bol, anabol, steroid Item number: 5500925161
pink dbol, anabol, d-bol, steroids

You are signed in

Bidding has ended for this item. Another buyer purchased this item using Buy It Now. (matferme is the winner)

How did this happen? Another buyer used Buy It Now to purchase the item immediately. Learn about Buy It Now.



Go to larger picture

Sold for: US \$65.00
Ended: Jun-08-04 17:29:01 PDT
Start time: Jun-08-04 16:08:00 PDT
History: 1 bid (US \$65.00 starting bid)
Buyer: matferme (22)

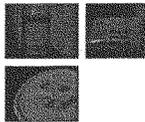
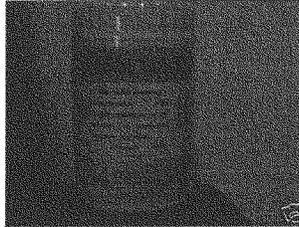
Seller information
082676 (30)
Feedback Score: 30
Positive Feedback: 100%
Member since Sep-22-02 in United States
Read feedback comments
Ask seller a question
View seller's other items
Safe Buying Tips

Auction ended early with Buy It Now.
Item location: big town United States
Ships to: Worldwide
Shipping and payment details

Description

what we have here is 100 pink british dispensary anabol for vet use only great gains with 5-8 tabs a day email me for price on more than 100 sent inside the usa safe mail shipping in the usa is \$2 flat m/g date 6/05/04 the container in the pics is the one i will be opening. thank you jrcid1@hotmail.com

Select a picture



FREE Counters and Services from Andale

Shipping and payment details

Shipping and handling: Standard shipping service: US \$2.00 (within United States)

Shipping insurance: Not offered

Will ship worldwide.

Seller's payment instructions & return policy:
payment due in 3 days. paypal, blank m.o. or cash only

Payment methods accepted

PayPal

- Money order/Cashiers check
 - Other - See Payment Instructions for payment methods accepted
- Learn about payment methods.

Where to go next?

Back to list of items | Email this item to a friend | Printer-friendly page | Safe Trading Tips | Top of page

Seller assumes all responsibility for listing this item.





Back to list of items Listed in category: Health & Beauty > Dietary Supplements, Nutrition > Other

Dbol, Anabol, British Disp., Dianabol, Deca, Sustanon Item number: 5500768191

You are signed in

Bidding has ended for this item. Another buyer purchased this item using Buy It Now. (jrsa82 is the winner)

How did this happen? Another buyer used Buy It Now to purchase the item immediately. Learn about Buy It Now.



Go to larger picture

Sold for: **US \$150.00**
Ended: Jun-08-04 20:48:41 PDT
Start time: Jun-07-04 22:00:44 PDT
History: 1 bid (US \$150.00 starting bid)

Seller Information
kalinets (51 ★)
Feedback Score: 51
Positive Feedback: 100%
Member since Jul-21-01 in United States
Read feedback comments
Ask seller a question
View seller's other items
Safe Buying Tips

Buyer: **jrsa82 (19 ★)**

Auction ended early with Buy It Now.

Item location: Palatine United States / Chicago

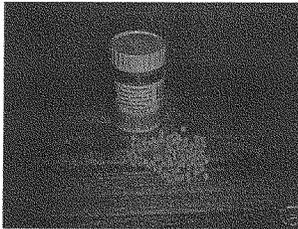
Ships to: United States only

Shipping and payment details

Description

This auction is for 200 British Dispensary Dbol tabs. They come with the snake and arrow through its head on side. These pills are the real deal and I am selling them due to leftovers from my personal cycle. I used them personally and they are awesome!! Please E-mail me with any questions. You will receive item Fast!! Free 2-3 day Priority Mail.

Select a picture



FREE Counters and Services from Andale

Shipping and payment details

Shipping and handling: US Postal Service Priority Mail: FREE (within United States)

Shipping insurance: Not offered

Will ship to United States only.

Payment methods accepted

Buy It Now payments:



Auction payments:



Learn about payment methods.

Where to go next?

Back to list of items | Email this item to a friend | Printer friendly page | Safe Trading Tips | Top of page

Seller assumes all responsibility for listing this item.

[Back to list of items](#) | Listed in category: [Health & Beauty](#) > [Dietary Supplements](#) > [Herb/Spice](#) > [Sports Supplements](#) > [Testosterone](#)

Sustanon/Deca Item number: 523202476

Bidder or seller of this item? [Sign in](#) or [create your account](#) | [Add to watch list](#) | [Add to eBay](#)

Current bid: US \$200.00

Time left: 9 mins 59 secs
 3-day listing
 Ends Jun-22-04 14:37:09 PDT

Start time: Jun-19-04 14:37:09 PDT

History: 11 bids (US \$100.00 starting bid)

High bidder: [christmas272 \(9\)](#)

Seller information

Member since: Jun-19-03
 Feedback Score: 103
 Positive Feedback: 99.6%
 Member since: Jun-19-03
[View seller's other items](#)

Item location: U.S.A. United States

Ships to: Worldwide
[Shipping and payment details](#)

Low monthly payments
 if you use PayPal Buyer Credit. Subject to credit approval.
[See details](#) | [Apply now](#)

Description:
 10 amps of Sustanon and 10 amps of Deca, for vet use only. Email with questions.

Thanks for looking!
 FREE Counters and Services from Andale

Shipping and payment details
 Shipping and handling: Check item description and payment instructions or contact seller for details.
 Will ship worldwide.
 Seller's payment instructions & return policy:
 Email address for actual shipping price.

Payment methods accepted:
 This seller, vnoja79, prefers PayPal.



Money order/Cashiers check
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Ready to bid? Yes

Sustanon/Deca
 Current Bid: US \$200.00

Your maximum bid: US \$ (Enter US \$202.50 or more)

You will confirm in the next step.

eBay automatically bids on your behalf up to your maximum bid.
[Learn about bidding](#)

What else can you do?
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Seller assumes all responsibility for listing this item.

Chairman GRASSLEY. When Senator Biden comes, if he wants to interject in the middle of the first panel, I will stop and let him testify, because normally we do that before we start out.

So I now recognize our first panel. We will begin to hear testimony from Joseph Rannazzisi, Deputy Director of the Office of Diversion Control at DEA. The second witness is Terry Madden, the CEO of the U.S. Anti-Doping Agency (USADA). The USADA is officially responsible for education, testing, and adjudication of doping violations of Olympic, Pan-American, and Paralympic athletes with respect to performance-enhancing drugs. Lastly, we have Bill Martin, the Athletic Director at the University of Michigan and the former president of the U.S. Olympic Committee.

All of you folks are so deeply involved in this and I am sure you all have very busy schedules, but I want to thank you for being here this morning. We hope that you have very long statements to put in the record. We have asked you, if you could, to summarize your remarks in 5 minutes because all of your testimony can be put in the record. And then we will have questions from any of the members, including myself, after all three of you have testified.

Mr. Rannazzisi, we will start with you.

**STATEMENT OF JOSEPH T. RANNAZZISI, DEPUTY DIRECTOR,
OFFICE OF DIVERSION CONTROL, DRUG ENFORCEMENT
ADMINISTRATION**

Mr. RANNAZZISI. Chairman Grassley, staff members of the Senate Caucus on International Narcotics Control, it is an honor to appear before you today for the first time in my capacity as Deputy Director of the Drug Enforcement Administration, Office of Diversion Control. On behalf of DEA's Administrator, Karen Tandy, I appreciate the opportunity to testify before you on this important issue.

The issue of steroid abuse has recently received national and international attention in the context of professional sports, as well as the upcoming Olympic Games. The importance of stopping steroid abuse extends far beyond the baseball diamond, football field, or running track. Our focus in this area is the health and future of our children. Abuse of anabolic steroids among America's youth has reached dangerous levels and it has placed our children at increased risk of heart disease, liver cancer, depression, stunted growth, and eating disorders, not to mention increased episodes of hostility and aggression.

Steroid abuse poses real dangers and has become a national concern. The idolization of sports heroes and the enticement of improved athletic performance have led many of our Nation's youth to turn to steroids.

Unfortunately, many youth and amateur athletes have misconceptions about steroids and are uninformed about their dangers. The 2003 Monitoring the Future Study conducted by the University of Michigan indicates that approximately 3.5 percent of American high school students have used illegal anabolic steroids at least once by grade 12. This study also showed that an incredible 45 percent of all 12th graders did not believe that taking steroids posed a great risk.

The risks of abusing steroids are real and compelling. They include damage to the heart, kidneys, liver, and sex organs. The use

of steroids can also prevent children from reaching their full height. Moreover, abuse often elevates cholesterol levels and causes cardiovascular weakening, combined with hypertension. Steroid use can also cause uncontrollable outbursts of anger, frustration, or combativeness, resulting in wanton acts of violence. These outbursts are commonly referred to as "roid rage." The sharing of needles to inject these substances may also expose the users to HIV. Steroids can be addictive, as evidenced by the continued use in spite of adverse physical and psychological effects.

In order to effectively battle these dangerous drugs, the DEA has continued to conduct investigations targeting significant traffickers of steroids, has through our demand reduction program continued to work to inform and educate the public on the dangers of steroids, and has continued to initiate and fund studies in accordance with the Anabolic Steroid Control Act of 1990.

Unfortunately, the minimal research and short testing time required for continuous, rapid introduction of new steroids into the open market has made attempts at monitoring and scheduling these new substances extremely difficult for law enforcement authorities. The legislation sponsored by Senators Biden and Hatch, S. 2195, will provide strong new tools for the DEA to shut down the steroid trade. This bill will no longer allow steroids to masquerade as harmless dietary supplements. It deals with steroids for what they are: dangerous drugs.

The DEA appreciates the work of the Caucus to move this legislation forward. The bill would give the DEA clear authority to conduct law enforcement operations against trafficking of steroid precursors and steroids, such as the designer steroid THG. Also, this legislation will remove an enormous stumbling block to taking these steroids off the shelf by removing the requirement for repetitive, lengthy, and expensive testing to prove muscle growth. It will also provide a foundation to jump-start our future efforts by adding more than two dozen known dangerous steroids to the list of controlled substances.

Mr. Chairman, thank you for your recognition of these important issues and the opportunity to testify today. I would be happy to answer any questions you may have.

[The prepared statement of Mr. Rannazzisi follows:]

STATEMENT OF JOSEPH T. RANNAZZISI, DEPUTY DIRECTOR, OFFICE OF DIVERSION CONTROL, DRUG ENFORCEMENT ADMINISTRATION

Chairman Grassley, Co-Chairman Biden and distinguished members of the Senate Caucus on International Narcotics Control, on behalf of Administrator Karen Tandy, I appreciate your invitation to testify today on the importance of fighting the growing abuse of steroids in this country.

OVERVIEW

The issue of steroid trafficking and abuse continues to receive national and international attention in the context of professional sports, as well as the upcoming Olympic Games. The importance of stopping steroid abuse extends far beyond the baseball diamond, football field or running track. Our focus in this area is the health and future of our children. Abuse of anabolic steroids among America's youth has reached dangerous levels, and it has placed our children at increased risk of heart disease, liver cancer, hypertension, elevated cholesterol, depression, stunted growth, and eating disorders, not to mention increased episodes of hostility and aggression.

Anabolic androgenic steroids are synthetic chemicals based on the structure and pharmacology of testosterone originally developed in the 1930's to help rebuild body tissue and prevent breakdown of tissue in individuals suffering from debilitating diseases. They promote the growth of skeletal muscle and the development of male sexual characteristics, in addition to other effects. Their popularity with athletes exists due to the muscle development and physical performance enhancements they provide. Unfortunately, this popularity has filtered down to our nation's teenagers and young athletes, who are lured by easy shortcuts to greater athletic prowess and more muscular physiques.

STEROID ABUSE BY ADOLESCENTS AND AMATEUR ATHLETES

Steroid abuse was once viewed as a problem associated only with bodybuilders and professional athletes. Though these segments of the population continue to experience steroid abuse, use among young Americans has now reached an alarming level. The 2003 Monitoring the Future Study conducted by the University of Michigan indicates that approximately 3.5 percent of American high school students have used illegal anabolic steroids at least once by grade 12. In that same study, an incredible 45 percent of all 12th graders did not believe taking steroids posed a great risk.

This report came on the heels of earlier studies, including the National Institute of Drug Abuse (NIDA) report of 1999, which stated that more than a half million 8th and 10th grade students were using anabolic steroids. A Youth Risk Behavior Surveillance Survey conducted by The Centers for Disease Control and Prevention (CDC) indicated that in 2001, five percent of all high school students reported use of steroids pills/injections without a physician prescription during their lifetimes.

Compounding the dangerous misconception among many young people that steroid use is harmless is the high-profile use of steroids among professional athletes, who our nation's youth often idolize and seek to emulate. Sports figures have been revered in the United States for generations, and many are viewed as national heroes. Consequently, sports figures serve as prominent role models for many of our nation's younger citizens. The abuse of steroids by those in the athletic spotlight has not gone unnoticed by our country's youth and young athletes. In an effort to address the problem of steroid abuse, President Bush, in his State of the Union Address, stressed to players, coaches, team owners and union representatives "to take the lead, to send the right signal, to get tough, and to get rid of steroids now."

The negative effects of long term anabolic steroid use are well documented. They include damage to the liver, kidney, heart, and sexual organs. Their use can also prevent children from reaching their full height. Moreover, abuse often elevates cholesterol and causes cardiovascular weakening, combined with hypertension. And because steroids are commonly injected, needle sharing can transmit blood-borne diseases such as HIV and AIDS. Steroids use can also cause uncontrolled outbursts of anger, frustration or combativeness resulting in wanton acts of violence. These outbursts are commonly referred to as "roid rage." Steroid abusers may also become addicted to the drugs, as evidenced by their continued use of the substances, in spite of the physical and psychological effects they may be experiencing.

THE ANABOLIC STEROID CONTROL ACT OF 1990

Despite these clear health risks, the rapid evolution of new steroids has made it difficult for law enforcement to keep up, because each specific chemical formulation is required to be considered as a separate drug. In its initial attempt to regulate steroid abuse, Congress passed the Anabolic Steroid Control Act of 1990 (ASCA), which scheduled anabolic steroids as a class of drugs and specifically listed 27 as controlled substances. In addition, Congress anticipated that future steroids would ultimately infiltrate the anabolic steroid black-market and crafted a four-part definition that the DEA could use to administratively classify new steroids as Schedule III anabolic steroids. All four of the following questions needed to be answered:

- Is the steroid chemically related to testosterone?
- Is the steroid pharmacologically related to testosterone?
- Is the steroid an estrogen, progestin, or corticosteroid?
- Does the steroid promote muscle growth?

The four-part test was first considered by the DEA in 1999, when it determined that the substance androstenedione met the first three criteria required under the 1990 legislation, but has been unable to make a finding regarding the fourth criteria, due to a lack of accepted methodology available to validate the final requirement for muscle growth. This meant that Congress had provided the DEA with the blueprint for scheduling steroids, but the scientific community had yet to develop a study that accurately quantified the promotion of muscle growth. This major

stumbling block provided a legal loophole for traffickers of anabolic steroids to continue marketing their dangerous drugs as dietary supplements.

Consequently, the DEA has had to initiate and fund studies to develop animal models that could quantify the effects of steroids on muscle. For example, the DEA is currently cosponsoring a three year study in New York City using the guinea pig to evaluate the effects of steroids on skeletal muscle growth. Other participating agencies include the Office of National Drug Control Policy (ONDCP) and several branches of the National Institutes of Health, including the National Institute on Drug Abuse (NIDA). The first phase has been completed, and the second phase is scheduled for completion in September 2004. This model will then be used to evaluate the effects of skeletal muscular growth from two substances: testosterone precursors and nandrolone precursors. Both of these steroids are now openly sold in dietary supplement products. The DEA is also funding a study in Seattle, Washington, using an immature rat as a model. In conjunction with the New York study, the development of skeletal muscular growth using steroids currently sold in dietary supplements is being examined. We anticipate this study will be completed by October 2004.

These two studies have proven both costly and time consuming. By contrast, the amount of research and time required to introduce a new steroid into the dietary supplement market is minimal. The end result has been an increase in the number of steroids available in dietary supplement products. Again, the ongoing requirement that the DEA must first scientifically validate muscle growth is a significant impediment to effective regulatory oversight of these steroids. This means they continue to enter the dietary supplement market and continue to be legally purchased by America's youth, athletes, bodybuilders and other ill informed individuals who abuse anabolic steroids.

The DEA supports S. 2195, sponsored by Senators Biden and Hatch, to combat steroid trafficking and the resulting abuse by our country's youth. The bill provides DEA with two additional tools to shut down the steroid trade. First, it gives us clear authority to conduct law enforcement operations against trafficking of steroid precursors, as well as other steroids such as the designer steroid THG. Until now, these steroids have been able to masquerade as harmless dietary supplements. This bill will finally call these steroids what they are—dangerous drugs. Second, this legislation removes the enormous stumbling block to taking these steroids off the shelf, by removing the requirement for repetitive, lengthy and expensive testing to prove muscle growth. It also will provide a foundation to jumpstart our future efforts by adding more than two dozen known dangerous steroids to the list of controlled substances. That list will expand our ability to evaluate new steroids that may be developed.

DEA'S EFFORTS AGAINST STEROID TRAFFICKING AND ABUSE

Anabolic steroids are uncontrolled in many countries, which results in a virtual unlimited supply of steroids world-wide. Anabolic steroids are frequently smuggled into the United States from Mexico by U.S. citizens who travel there to purchase them without a prescription. In addition, criminal organizations of Russian, Romanian, and Greek nationals are significant traffickers of steroids, and are responsible for substantial shipments of steroids entering the United States. Domestically, illicit steroids are often sold at gymnasiums and bodybuilding/weightlifting competitions, where sellers obtained them through theft and fraudulent prescriptions. The Internet has also become an avenue to obtain steroids, which are often times advertised through bodybuilding and fitness websites and message boards.

Overall, the DEA has increased its enforcement efforts against anabolic steroids. In 2001, we initiated 52 steroid cases. Last year, 87 investigations were launched. In one example, during October 2002, the DEA arrested eight individuals involved in the largest ketamine manufacturing and trafficking organization in North America. Included in the arrests were the owner of Ttokkyo Laboratorios and their sole Mexican distributor arrested in Panama. At the time, Ttokkyo was the largest manufacturer of anabolic steroids in Mexico and supplier to major U.S. distributors. This international ketamine and anabolic steroid trafficking organization in Mexico smuggled thousands of vials of ketamine and steroids to California, New York, New Jersey, and Florida. Among the Schedule III steroids being smuggled were methandienone, nandrolone, testosterone, and oxandrolone.

Since initiating our Demand Reduction Program in 1986, the DEA has worked with coaches across the country to increase their understanding of the problems associated with illegal drugs and steroid abuse in sports. Through the DEA's Demand Reduction Program, our Demand Reduction Coordinators (DRCs) in our field divisions also work with youth, athletes and parents to educate and heighten their

awareness about the abuse of steroids and other performance enhancing drugs in sports. These efforts have included presentations to university athletic teams, Sports and Drug Awareness Programs. In many of these programs, the DEA utilizes coaches and professional athletes to assist in informing and educating the public.

The DEA has also developed literature on the dangers of steroid abuse and has made this information available through our website. We are also working to include information on steroid abuse in our upcoming museum exhibit that will be featured in New York City. The DEA continues to seek methods to educate the public about these dangerous drugs, as we believe that education is the most important aspect in curtailing abuse.

CONCLUSION

The abuse of steroids has become a national concern. The idolization of sports heroes and the enticement of improved athletic performance have led many of our nation's youth to turn to steroids. In order to effectively battle these dangerous drugs, the DEA has continued to conduct investigations targeting significant traffickers of steroids, has continued to work to inform and educate the public on the dangers of steroids and has continued to initiate and fund studies in accordance with the Anabolic Steroid Control Act of 1990.

Mr. Chairman, thank you for your recognition of this important issue and the opportunity to testify here today. I will be happy to answer any questions you may have.

Chairman GRASSLEY. Thank you for your testimony.
Now, Mr. Madden.

STATEMENT OF TERENCE P. MADDEN, CHIEF EXECUTIVE OFFICER, U.S. ANTI-DOPING AGENCY

Mr. MADDEN. Mr. Chairman, good morning. My name is Terry Madden. Thank you for the opportunity to testify. Today I come to you as the CEO of the United States Anti-Doping Agency, which has been recognized by Congress as the independent, national anti-doping agency for Olympic and Paralympic sport in the United States. Our mission is to protect and preserve the health of athletes, the integrity of competition, and the well-being of sport through the elimination of doping. Over the last year, we conducted more than 7,000 tests for steroids and other prohibited doping substances.

I am here today to speak to you about the increasing number of products sold over-the-counter in the United States that contain anabolic steroid precursors. These products, marketed and sold as dietary supplements, contain substances, such as androstenedione and norandrostenedione. These substances are one chemical step away from anabolic steroids. Once ingested, these products are converted within the body into anabolic steroids. While this is a problem that affects athletes, it is, in truth, a significant public health issue that transcends sport and places American consumers at risk.

The perils of anabolic steroids are well known. In Olympic sport, the most notable, systematic state-supported program of doping with anabolic steroids was conducted by the East Germans from 1974 until the Berlin Wall fell. The results of this program have since been substantiated through the testimony of many of the athletes themselves, their coaches, and doctors during the East German doping trials. One of the anabolic substances developed by the East Germans as part of their doping program was androstenedione. In the body, androstenedione metabolizes into the anabolic steroid testosterone and other steroids.

The documented side effects of steroids and steroid precursors among these East German athletes, particularly women athletes,

are severe and include effects on the liver and reproductive system, susceptibility to cancers, and permanent masculinization of women. Other side effects include growth arrest in adolescents and shrinking of testicles and impotence in men.

Today, American consumers can walk into their corner nutrition store and buy products containing andro. After professional athletes acknowledged that they used andro, sales of these supplements in the United States dramatically increased. This phenomenal demand, particularly among teenagers, led to the mass marketing of other steroid precursors like 19-norandro, which metabolizes in the body into the steroid nandrolone, another controlled substance. Now the nutrition store shelves and the Internet are flooded with products containing these steroid precursors. Further, the manufacturers of these substances attempt to take advantage of DSHEA (Dietary Supplement Health and Education Act) by touting these substances as “natural” and implying in their advertising that “natural” equals safe.

Under the current regulatory scheme, a manufacturer is not required to test its steroid precursor product for either side effects or purity prior to putting it on the shelf. This is of particular concern when women and adolescents are considered. Instead, the burden rests on the Government agencies to prove that a particular product is harmful. However, by the time action is taken against a specific product, an unscrupulous manufacturer could simply make a minor chemical change and reintroduce the product.

The marketers of these products glorify the muscle-building qualities of these substances and do everything possible to reinforce the association between these products and controlled anabolic steroids. These products are marketed under names that reinforce their connection to anabolic steroids, including “Cycloroid,” “Masterbolan,” “Anabol-X,” “Paradrol,” and “Animal Stak.” These products are advertised as equal to or better than the “real steroids” and promise the user huge gains in muscle mass. The advertising also stresses that these products are “legal” in order to raise the implication that they are safe.

In a society where high school athletes can sign multimillion-dollar endorsement contracts, we cannot expect teenagers to ignore advertisements claiming that these products are safe alternatives to steroids and will make them “ripped,” “huge,” improve their athletic performance, and give them the body of their dreams.

For Olympic athletes, who know to avoid these products, there remains another concern. In increasing numbers, athletes are failing doping tests after taking these mis-labeled dietary supplements. Studies have shown that an alarmingly high percentage of dietary supplements contain doping substances that are not disclosed on the label. For example, a recent study of 624 dietary supplements by the International Olympic Committee found that 41 percent of the products from American companies contained a steroid precursor or banned substance not disclosed on the label.

USADA believes that the current effectively unregulated availability of products containing precursors in the United States is a health crisis that affects not just Olympic athletes, but every American teenager who dreams of becoming a professional or Olympic athlete and every consumer who takes one of these products with-

out being informed of the risks. Additionally, because of the risk of contamination, American consumers may unknowingly be ingesting steroid precursors.

USADA feels strongly that research and education of athletes regarding the medical and ethical issues with taking performance-enhancing substances are an important part of the drug deterrence strategy. Members of USADA staff have made more than 100 presentations before more than 4,600 athletes, coaches, and parents in the last 2 years to discuss drug testing and the dangers of performance-enhancing drugs. USADA has also been part of a pilot program entitled "100 Percent Me" with Scholastic magazine, which guides fifth-grade students to make good, ethical, and healthy lifestyle choices, including not using drugs. Our intent is to educate the next generation of citizens and athletes about the benefits of doing things right. Finally, USADA has invested \$3.7 million in the past 2 years and committed another \$1.4 million for the next 2 years to develop new tests and testing strategies. New tests are now beginning to appear as a result of this investment. In addition, a research project on the ethical aspects of performance-enhancing drugs in sport is coming to fruition.

On behalf of the Coalition for Anabolic Steroid Precursor and Ephedra Regulation, I would like to thank Senators Biden, Grassley, Hatch, and Harkin for their attention to this matter and commend their introduction of the Anabolic Steroid Control Act of 2004. This important bill amends the Controlled Substances Act by scheduling the substances I have discussed here today and making it easier to schedule any steroid precursors introduced by manufacturers in the future. USADA believes that this bill is an appropriate solution to the steroid precursors problem.

Mr. Chairman, I particularly want to thank you and Senator Biden for your strong support of the bill. However, I am very concerned that consideration of new provisions may kill any chance of passage of the bill this year. As you know, Mr. Chairman, the House counterpart passed last month 408-3, and I am afraid we are running out of time. Later on, I would like to submit letters to the record for support from the NFL, Major League Baseball, the NBA, the United States Olympic Committee, and several health organizations in support of the bill as it is this year. We need to get this thing passed and get these precursors out of the corner nutrition stores so our teenagers and our children will not have access to them.

Thank you.

[The prepared statement of Mr. Madden follows:]

TESTIMONY OF TERRENCE P. MADDEN, CHIEF EXECUTIVE OFFICER,
UNITED STATES ANTI-DOPING AGENCY

Mr. Chairman, members of the committee, good morning, my name is Terry Madden. Thank you for the opportunity to testify. Today I come to you as the CEO of the United States Anti-Doping Agency, which has been recognized by Congress as the independent, national anti doping agency for Olympic and Paralympic sport in the United States. Our mission is to protect and preserve the health of athletes, the integrity of competition, and the well-being of sport through the elimination of doping. Over the last year, we conducted more than 7,000 tests for steroids and other prohibited doping substances.

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For Olympic athletes, who know to avoid these products, there remains another concern. In increasing numbers, athletes are failing doping tests after taking mislabeled dietary supplements. Studies have shown that an alarmingly high percentage of dietary supplements contain doping substances that are not disclosed on the label. For example, a recent study of 624 dietary supplements by the International Olympic Committee found that 41% of the products from American companies contained a steroid precursor or banned substance not disclosed on the label.

USADA believes that the current effectively unregulated availability of products containing steroid precursors in the United States is a health crisis that affects not just Olympic athletes, but every American teenager who dreams of becoming a professional or Olympic athlete, and every consumer who takes one of these products without being informed of the risks. Additionally, because of the risk of contamination, American consumers may unknowingly be ingesting steroid precursors.

USADA feels strongly that research and education of athletes regarding the medical and ethical issues with taking performance-enhancing substances are an important part of the drug deterrence strategy. Members of USADA staff have made more than 100 presentations before more than 4600 athletes, coaches and parents in 2003-2004 to discuss drug testing and the dangers of performance-enhancing drugs. USADA has also been part of a pilot program entitled “100% Me” with *Scholastic Magazine* which guides 5th grade students to make good ethical and healthy life-

style choices—including not using drugs. Our intent is to educate the next generation of citizens and athletes about the benefits of doing things right. Finally, USADA has invested \$3.7 million in the past two years and committed \$1.4 million for the next two years to develop new tests and testing strategies. New tests are now beginning to appear as a result of this investment. In addition, a research project on the ethical aspects of performance enhancing drugs in sport is coming to fruition.

On behalf of the Coalition for Anabolic Steroid Precursor and Ephedra Regulation (CASPER), I would like to thank Senator Biden, Senator Hatch, Senator Grassley and Senator Harkin for their attention to this matter and commend their introduction of The Anabolic Steroid Control Act of 2004. This important bill amends the Controlled Substances Act by scheduling the substances I have discussed here today and making it easier to schedule any anabolic steroid precursors introduced by manufacturers in the future. USADA believes that this bill is an appropriate solution to the steroid precursors problem. Similarly, I would like to thank Congressman Sweeney, Congressman Osborne, and Congressman Sensenbrenner for their leadership on this issue and the passage of Anabolic Steroid Control Act of 2004 in the House of Representatives. Finally, I would like to thank this Committee for its time and its interest in this important public health issue. Thank you.

Chairman GRASSLEY. Thank you for your strong statement.

Before I go to Mr. Martin, I will call on Senator Biden for an opening statement.

**STATEMENT OF HON. JOSEPH R. BIDEN,
U.S. SENATOR FROM DELAWARE**

Senator BIDEN. I will be very brief because I am anxious to hear the witnesses. I would ask unanimous consent that my entire opening statement be placed in the record.

Chairman GRASSLEY. It will be.

Senator BIDEN. And, Mr. Chairman, just let me say two things.

Number one, thank you for holding the hearing. You and I have worked on this issue for a long time. Quite frankly, gentlemen, I thought I had solved this problem years ago with the first steroid bill that I introduced over a decade ago. But I should have been aware, with all my years on the Judiciary Committee and working in the drug area, that designer drugs and scientists have incredible imaginations, and it took very little time for innovative scientists to develop new substitutes and rediscover old ones. So we are trying to correct that right now, and I thank you all for your testimony.

The point I would like to speak to very briefly is this: I think that Mr. Madden makes an extremely important point: time is running out. Although some of my colleagues—and one of them is a Democrat, so this is not a partisan thing—are, quite frankly, holding this bill hostage to get another good thing done, what he wants to do is what I want to do, too. But I, quite frankly, think it is ridiculous for us to let this year go by, as we both know the calendar is dwindling. It seems to the rest of America the end of the year is a long way off, but this session of the United States Congress is only days off—I mean days.

Chairman GRASSLEY. Thirty days.

Senator BIDEN. Thirty days off. And it is not a criticism of anybody. We have two conventions. We have a major Presidential—all Presidential elections are major—but a Presidential election, and so we do not have much time. So I would urge, I publicly urge my colleagues who have additional interests—to withhold those interests and let us move on this legislation. I thank Mr. Madden and

I thank all of you for being here. I am anxious to hear the rest of the testimony, and I will have questions at the appropriate time Mr. Chairman.

[The prepared statement of Senator Biden follows:]

STATEMENT OF HON. JOSEPH R. BIDEN, JR.,
U.S. SENATOR FROM DELAWARE

Mr. Chairman, thank you for convening this hearing today to put the spotlight on the issue of the abuse of performance-enhancing drugs by adolescents. This is certainly a timely issue with the All Star game being played tonight in Houston, the Olympic games around the corner and a cloud of suspicion surrounding some of America's top professional and Olympic athletes.

Over a decade ago I introduced a bill to make anabolic steroids illegal. After it became law, it took very little time for innovative scientists to develop new substances—and rediscover old ones—that were legal under of the letter of my law but certainly violated its spirit.

These new substances, called steroid precursors or pro-steroids, are one step removed from illegal steroids.

In the words of the United States Anti-Doping Agency—the folks who drug test Olympic athletes—they are “the functional equivalent of steroids.”

Not only are these substances polluting our professional sports leagues and Olympic teams, but use of these harmful substances is also setting a horrible example for our children.

According to the Kaiser Family Foundation, nearly three-quarters of kids say they want to emulate professional athletes.

But *more than half of those kids* believe their sports heroes use steroids and other performance-enhancing drugs to win.

The recent 42-count indictment of individuals accused of distributing steroids to professional athletes only reinforces that view.

And if you want evidence that an athlete can influence the habits of fans, consider this: When Mark McGwire admitted he used andro during his home-run record-breaking season, sales of the product soared.

In my view, access to these performance-enhancing drugs is not only a *health* issue but also a values issue.

If kids think that all of the best athletes are “on the juice,” what does that teach them?

I think it teaches them that they should use drugs to get ahead and win the game; that cheating is OK: This offends me to my core.

The United States is the ultimate meritocracy and it is absolutely un-American to take a performance-enhancing drug to get an unfair competitive advantage.

Too many kids and adults believe that supplements will make them faster and stronger and never think about the health consequences.

70 percent of kids and half of parents surveyed were unable to identify even one negative side effect associated with performance-enhancing drugs.

And 80 percent of kids reported that their parents have never talked to them about the dangers of steroid use.

One of our witnesses today, Dr. Don Catlin, will give us a detailed description of some of the side effects of steroid use—they are serious and quite graphic in nature.

The bottom line is this: products that put users at this type of risk should not be available over the counter as dietary supplements. Period.

The federal government must stop treating steroid precursors like vitamins and classify them as the dangerous drugs that they are.

In order to accomplish this, last October Senator Grassley and I introduced the Anabolic Steroid Control Act. The bill has widespread support.

It has the endorsement of a wide range of medical, athletic and drug policy organizations.

In his State of the Union address, President Bush supported the principles behind the legislation when he called on leagues, team owners, players and coaches to rid professional sports of performance-enhancing drugs.

In March, the Secretary of Health and Human Services, Administrator of the Drug Enforcement Administration, and Commissioner of Food and Drugs took the President's statement one step further when they held a press conference to endorse my bill.

And last month the House of Representatives passed a companion bill, sponsored by Judiciary Committee Chairman Sensenbrenner, by a vote of 420 to 3.

The legislation would add THG, andro and their chemical cousins to the list of anabolic steroids controlled under the Controlled Substances Act and make it easier for the IDEA to add similar substances to that list in the future.

It also directs the United States Sentencing Commission to review the Federal sentencing guidelines for crimes involving anabolic steroids and consider increasing them.

And finally, it authorizes \$15 million for school-based programs highlighting the harmful effects of anabolic steroids.

With the Olympic games swiftly approaching and stories about athletes and doping scandals in the news nearly every day we have unprecedented momentum to pass this bill.

Yet, the Senate has not acted to move this legislation at all.

The bill has been held hostage while some of my colleagues try to resolve an unrelated issue.

Meanwhile, steroid precursors remain on the shelves and kids continue to buy them.

This issue is far too important to play politics with.

I have here two letters urging the Senate to pass this legislation. One is from a coalition of 20 sports and medical groups. The other is from Major League Baseball, the National Football League, the National Basketball Association and the National Collegiate Athletic Association. I ask unanimous consent to submit them for the Record.

It is my sincere hope that all of our witnesses today and all of my colleagues will work together to pass this legislation before the Senate recesses for the month of August.

Again, Mr. Chairman, I thank you for convening this hearing today and I look forward to frank discussions with our witnesses today.

Chairman GRASSLEY. Thank you, Senator Biden.

Now, Mr. Martin, and you gave me greetings from your president, who is a former Iowan. Return my greetings to her.

STATEMENT OF WILLIAM C. MARTIN, DIRECTOR OF INTER-COLLEGIATE ATHLETICS, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN

Mr. MARTIN. Mr. Chairman, I will certainly do that, and thank you for inviting me today. I am Bill Martin, the Athletic Director at the University of Michigan. I have also just completed a 16-month stint as the president of the United States Olympic Committee and served on that board for 8 years.

The issue before us today is one of the most serious we face in amateur sports. The rising use of steroids and steroid precursors is troubling on any number of levels. By far, the health of our young people is of primary concern. So, too, is the impact of the use of these performance-enhancing drugs on the integrity of sports themselves. I salute you and your Caucus for taking a look at this issue.

I want to make three general comments about drugs and amateur athletics. First, I will discuss the measures we at the University of Michigan, and within the NCAA, are taking to educate our athletes about the dangers of these substances. Secondly, I want to discuss the strong enforcement mechanisms we have in place to deal with misuse. And finally, I will speak very briefly about the need for more uniformity among the various sports and sports organizations in dealing with this issue.

At Michigan, we have taken these issues very seriously for a long time. Our first priority has been to educate our athletes about the dangers of steroids and other drugs. We owe it to the athletes and their families to provide the best medical care we can, and that includes making sure they understand that steroids, dietary supple-

ments, and similar drugs can have potentially serious negative health impacts. Let me give you an example.

When creatine first became widely used by athletes, we moved aggressively to make sure our student athletes knew that we believed this substance was of little benefit and not proven safe to use. We focused our students instead on the value of good nutrition, keeping hydrated, and training as better alternatives to help them become better athletes. We continue to this day to strongly discourage the use of this or any other dietary supplement, and we have a full-time nutritionist to assist in educating our athletes about the dangers of these unregulated supplements.

With steroids and other drugs, we have taken the strong NCAA rules and expanded them. As you may know, the NCAA maintains a list of banned substances, including steroids, stimulants, hormones, and others. Random testing is performed at championship events, as well as year-round on campuses across our Nation.

At Michigan, we go beyond NCAA compliance. We push hard on the education front, as well as conducting our own random testing program. We view this as part of an overall substance education program focused not only on steroids and supplements, but also on alcohol and other drugs. Should any of our athletes test positive for the use of these substances, we immediately move ahead to prevent further abuse with education, counseling, and treatment. We also increase the frequency of testing of any such violator. For a second violation, athletes face suspension for at least 10 percent of their competitive season, and additional help is provided. Only after being medically cleared can an athlete return to competition, and we retain the right to impose stronger penalties, if warranted.

The result of this aggressive oversight is that we have seen a reduction in the positive test rate well below the national average. In many cases, the positives turned out to be from misuse caused by interactions with physician-prescribed legal medications. Our entire athletic staff is committed to ensuring that these rules are followed, including coaches, certified athletic training staff, counselors, and others.

One thing that would help us in this effort would be some set of uniform standards. As technologies evolve in these areas, the challenge of having drug-free sports is only increasing. There are sometimes differing standards between amateur and professional athletes in terms of testing and sanctions. Indeed, the banned substance list we use in the NCAA is different from that promulgated by the Olympics. I believe that the establishment of uniform rules and testing procedures across sports and across amateur and professional leagues would go a long way towards providing consistent messages to athletes and our youth and would greatly simplify enforcement.

At Michigan, we spend thousands of dollars and a large amount of other resources to educate our athletes, conduct testing, and make certain our athletes abide by both the spirit and the letter of the law. Our sister schools in the Big Ten make similar efforts, and I know from my days with the U.S. Olympic Committee that that agency's commitment has never been higher to fight these substances that can ruin lives and bring into doubt the validity of sporting events themselves. Indeed, it was the U.S. Olympic Com-

mittee that formed USADA, the agency that Mr. Madden represents, which is working so hard to help rid those sports of steroids and other drugs.

Let me conclude by commending the legislation that Senator Biden and several others of you have put forward to expand the list of controlled substances and to continue important research in these areas. The NCAA has endorsed that legislation, and I personally would urge both the Senate and House to adopt it as soon as possible.

Thank you again for the opportunity to appear here today, and I look forward to answering your questions.

[The prepared statement of Mr. Martin follows:]

STATEMENT OF WILLIAM C. MARTIN, DONALD R. SHEPHERD DIRECTOR OF
INTERCOLLEGIATE ATHLETICS, UNIVERSITY OF MICHIGAN

Mr. Chairman, Mr. Co-Chairman, Members of the Caucus, good morning and thank you for the opportunity to speak with you about a subject I take very seriously. My name is Bill Martin. I am the Athletic Director at the University of Michigan and I recently stepped down after one year as acting President of the United States Olympic Committee, where I was actively involved in these same issues. I am pleased to be here this morning to discuss the importance of drug education and compliance programs at the University and in the collegiate setting.

We at the University care foremost about educating young people to be successful students and athletes. To that end, we believe that student-athletes should only use drugs when medically necessary and ones deemed permissible by the National Collegiate Athletic Association (NCAA). At a time in sport when "bigger is better," when athletes hear about and often seek that magical drug to help them get bigger, faster, and stronger (in addition to, or sometimes in place of, hard work and sport-specific training), it is now more important than ever for universities to help lead the charge against inappropriate drug use in sport.

This morning, I would like to first highlight the importance of including drug education in university athletic programs to help in this difficult challenge, and help illustrate this by our university's response when the performance enhancing supplement creatine was introduced. Second, I will discuss the NCAA's commitment, and the expansion of these concepts at our university, including information about our internal drug testing program. And finally, I will briefly discuss some of the challenges we face in the future and the importance of unifying standards and promoting educational efforts for our future student-athletes.

THE IMPORTANCE OF EDUCATION

The difficult challenge facing institutional committees asked to address drug use in sport has never been greater. Surveys continue to report an increasing use of drugs and related performance-enhancing substances by athletes of all ages and skill levels irrespective of potential risks. Stellar individual performances are more often than not immediately followed by rumors of use of performance-enhancers. Suspensions of high-profile athletes are not uncommon, and terms like "andro" and "ephedra" seem to dominate sports page headlines as frequently as "goals scored" and "win/loss records." The integrity of sport is threatened as is the health and well-being of our athletes; young and old, male and female, recreational and elite.

Our athletic department's stance on performance-enhancing substances was best reflected in our approach with creatine. Promoted as a performance-enhancing "dietary supplement" that can be purchased "over the counter" with virtually no risk, the use of creatine accelerated like a tidal wave through athletic campuses across the country, with the majority of institutions supporting its use and many providing it for their student-athletes. The pressures to jump on board and promote creatine use magnified, despite little reputable data to support the claims of performance enhancement and no studies proving it was safe long-term.

In accordance with both our institution's and athletic department's mission statements, it was felt that our most important role was to educate: to provide our student-athletes not only with the highest quality medical care, but also with the highest quality programs in preventative medicine and health care education. Based on a thorough and ongoing review of the available literature and consultation with experts both at our institution and others throughout the country, we educate each student-athlete at his or her initial pre-participation evaluation of our view of per-

formance-enhancing drugs, emphasizing our stance and how those conclusions were reached. We strongly discourage the use of creatine, and emphasize good nutrition, hydration, and training programs as the critical components to helping our student-athletes reach their goals.

After the creatine surge, the explosion of other dietary supplements marketed as performance enhancers has further increased confusion and controversy among student-athletes. As a result of the *Dietary Supplement and Health Education Act of 1994*, the U.S. Food and Drug Administration (FDA) does not tightly regulate the supplement industry, and thus, the purity and safety of nutritional supplements are a real concern. To help our student-athletes, we have continually re-evaluated and when warranted, slightly modified our nutritional supplement policy, but the conclusion has not changed: the University of Michigan's Athletic Medicine staff strongly discourages the use of creatine and other "performance enhancing" dietary supplements as an adjunct to a student-athlete's training regimen. In addition, our sports nutritionist is now on-site full time during the academic year to help answer questions and provide accurate information on nutritional supplements.

The NCAA is also strongly committed to education about drug use by student athletes, including drugs used in an attempt to enhance athletic performance (such as anabolic steroids including androstenedione and THG, amphetamines, ephedrine to name a few) as well as those used "recreationally" (i.e. alcohol, marijuana, cocaine, PCP, and many others). Use of such drugs compromises the rules and ethics that govern athletic competition.

UNIVERSITY AND NCAA WORKING TOGETHER ON TESTING AND ENFORCEMENT

It is a guiding general principle of the NCAA that each member institution work to protect the health of and provide a safe environment for each of its participating student-athletes. To that end, the NCAA maintains a banned-substance list of performance enhancing drugs and substances that are detrimental to a student-athletes health (see attached list). Categories of banned substances include stimulants, anabolic agents (namely steroids), diuretics/drug test manipulators, street drugs, peptide hormones (such as human growth hormone), and beta-blockers, which are banned for the specific sport of rifle. Drug testing is performed at championship events and also year-round on campuses as part of a random testing program for athletes in selected sports. A student-athlete who tests positive is suspended for a minimum of one competitive season. The NCAA also has student-athletes from all sports complete drug use surveys on a regular basis to help institutions develop appropriate and up-to-date educational and treatment programs.

The NCAA Committee on Competitive Safeguards and Medical Aspects of Sports recommends policies and procedures to the Executive Committee and hears drug testing appeals. The NCAA education services staff provides support to the NCAA drug education and drug-testing subcommittee of the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports, which hears appeals to positive drug-testing cases. The Executive Committee, however, maintains final authority over the procedures and implementation of the NCAA drug-testing program. NCAA member institutions are dedicated to the ideal of fair and equitable competition as well as the protection of the health, safety and well-being of the student-athletes. The NCAA drug testing program was created so that no participant has an artificially induced advantage, that no participant might be pressured to use chemical substances to remain competitive and to safeguard the health and safety of participants.

Since 1999, NCAA drug-testing programs have been administered by The National Center for Drug Free Sport. The Center randomly selects football and track and field programs for short-notice testing (less than 48 hours notice to the schools). The Center also randomly selects athletes for testing based on the institutional squad lists. The Center provides collectors, supplies, on-site support and administrative services for the program along with results reporting and positive-case administration. The Center currently provides services to the NCAA, the National Football League, and the International All-Around Weightlifting Association.

At the University of Michigan, in addition to compliance with the NCAA programs, we have instituted our own internal drug education program. Although drug testing is a part of our program, it is only a small part, with the emphasis placed on drug education. Our program would perhaps be better termed a *substance* education program, as the program includes additional information regarding nutritional supplements, vitamins, and alcohol, substances not typically thought of as drugs by many in society.

A particular emphasis of our program is prevention. At the time of the student-athlete's first contact with our athletic medicine staff, direct questions about sub-

stance use are asked as part of the pre-participation evaluation. Also at that time, questions are answered and information is given discouraging the use of nutritional supplements (see attached *Ephedra, Creatine, & Related Dietary Supplements*). Teaching sessions led by our counselors and sports nutritionist, impromptu talks led by strength and conditioning staff, and informational pamphlets and posters made available and visible in our athletic training rooms continually help reinforce our message.

Our internal drug-testing program at the University of Michigan was implemented to augment all these efforts to create a drug-free environment for student-athletes, in addition to helping prepare our student-athletes for potential testing by the NCAA. All student-athletes encompassing every varsity sport at The University are subject to random, year-round testing. In addition, student-athletes are sometimes tested based on reasonable suspicion.

When a first positive test occurs, and it is confirmed a “true positive” upon meeting with our team physician (and not a positive test resulting from a prescribed medication such as a narcotic pain reliever or a stimulant for Attention Deficit Disorder (ADD), or a dietary ingestion such as a poppy seed bagel), the emphasis is on education. The extent and severity of the substance use is determined, and the student-athlete referred for education, counseling, and treatment, with a substance-abuse professional involved if deemed necessary. The student-athlete is also informed he or she will be subject to more frequent follow-up drug testing.

To be effective, we believe any drug-testing program must have some punitive component, and for a second positive test, the student-athlete is suspended from competition for a minimum of 10% of his or her competitive season. The student-athlete is re-evaluated and further help provided. If the student-athlete successfully completes the treatment program prescribed, he or she is cleared to return to participation. A third positive test results in a minimum of one year suspension from all team related activities. In addition, the student-athlete’s head coach or I, the Athletic Director, may impose more stringent disciplinary action after any positive test.

Our program’s continued success is dependent on the commitment and support of the entire athletic department staff: from team physicians to administrators, athletic trainers to strength and conditioning coaches, nutritionists to counselors, academic support personnel to all coaches. Routine communication and collaboration amongst all these groups is essential to achieving the goal of a drug-free environment for our student-athletes. However, the responsibility to stay drug-free ultimately remains squarely on the shoulder of the student-athlete. And as athletic department staff at the University of Michigan, a University committed to higher education and learning, it is our obligation to provide the educational support and timely advice needed to help our student-athletes reach that goal and achieve success.

I find recent statistics showing increased steroid and other drug use among high school and junior high athletes extremely disturbing. In the future, efforts must focus on developing and implementing drug educational programs at these levels, well before the student-athletes compete at the university level. Time, energy, and dollars spent attacking this problem in high schools, junior highs, and even youth sport programs is a good investment: an investment to reaching the ultimate goal of drug-free sports.

THE NEED FOR UNIFIED STANDARDS

As technologies evolve, and terms like genetic engineering, bionic implants, and “designer” steroids further complicate the landscape for drug policy-making committees, reaching this goal is increasingly difficult—especially difficult when one considers human nature. In addition, there are differing standards that exist for athletes at different levels in different sports. Professional athletes backed by strong player unions are not subjected to the same rigorous testing programs and sanctions as are amateur athletes participating in Olympic training programs. And there is no uniformity across sport as to what is permissible, as the banned substance list for Olympic athletes is different and more exhaustive than the NCAA banned substance list.

I believe the establishment of uniform rules and testing procedures across sports and across amateur and professional leagues would go a long way toward providing consistent messages to athletes and would greatly simplify enforcement. To that end, I would encourage my colleagues at all levels to work on developing guidelines.

In recent years, many universities across the country, like Michigan, have intensified and expanded their drug education programs. In the Big Ten Conference, each institution commits a large amount of resources and spends thousands of dollars yearly testing and educating their student-athletes, and this commitment can only

increase. The national and international efforts are evolving rapidly, helped in large part by the establishment of the World Anti-doping Agency (WADA). This agency, supported by many governments and the International Olympic Committee, heads the difficult task of unifying a global effort to address drugs in sport and help develop, implement, and enforce appropriate drug use policies and programs. Although simply a small part of the increased global effort to eliminate inappropriate and unethical drug use in sport, the University of Michigan Athletic Department remains steadfastly committed to help preserve the quality and integrity of sport.

CONCLUSION

Mr. Chairman, the issue of steroids and other performance-enhancing drugs in sports requires all of us—amateur and professional alike—to re-double our efforts to make sure we are sending a consistent message. The NCAA and the University of Michigan fully support the efforts of this Caucus and Senator Biden's bill, The Anabolic Steroid Control Act of 2004, in shedding light on this important subject. NCAA President Myles Brand has expressed his strong support saying, "this legislation is vital to the student-athlete and public welfare because although steroid precursors are as dangerous as illegal anabolic steroids, they are not only legal, but free from federal regulation." I urge the members of this Caucus to continue to work to pass this legislation this year.

At the University of Michigan, I believe we are working harder than ever to educate and enforce our rules to both ensure the health of our athletes and also to protect the integrity of the sports these athletes play. To do any less is a disservice both to the athletes and to the nation. Thank you for the opportunity to appear here today, and I look forward to answering any questions.

Chairman GRASSLEY. Thank you very much. I will start with Mr. Rannazzisi.

What are we doing to prosecute those who sell illegal steroids on the Internet, as I had several examples before us in my opening statement?

Mr. RANNAZZISI. Well, first of all, again, Chairman Grassley and Co-Chairman Biden, I want to thank you very much for this legislation, your support and work on this legislation. It is going to help greatly.

As far as the Internet goes, every day we have agents, investigators, and intelligence analysts going in and out of websites on the Internet. It is what they do. They are looking for rogue sites. When they identify these rogue sites, investigations are initiated.

Unfortunately, on the designer steroids, the steroids that are created to circumvent the CSA, we have a difficult time prosecuting those cases because, first of all, it takes so long to get them regulated and controlled. Currently, they are uncontrolled so we cannot do anything with them.

Now, as far as the anabolic steroids that are under the statute right now, they are controlled in Schedule III. When we find those sites, we actively investigate them, and we do prosecute them. We have several ongoing investigations now where drugs are coming up mostly from foreign sources into the U.S., either by smuggling, which is the main route into the country, or by rogue registrants who are writing prescriptions for them outside of the scope of medical practice or are distributing them through wholesalers outside of their distribution.

Chairman GRASSLEY. I can give you an example that eBay has over 20 sales for steroids right now—right now meaning today. Would you be in a position to stop that by getting it off of eBay, as an example?

Mr. RANNAZZISI. Well, we do have a liaison with eBay, for instance, on precursor chemicals that have shown up on eBay before.

And I will go back and ensure that we are in contact with eBay to find out who is distributing those anabolics through the website.

Chairman GRASSLEY. Okay. Thank you.

Again to you, does the sale of illegal steroids have a market outside athletes? And is the DEA aware of veterinarians or others who may have a legitimate need for steroids pursuing illegal steroids?

Mr. RANNAZZISI. Well, outside of athletes, yes, anyone who wants artificial performance enhancement, obviously, and anyone who is willing to risk adverse effects to reach a desired physical endpoint. As far as veterinarians, yes, and other practitioners do use steroids, but it is a limited use. I do not feel that the use of steroids is that widespread.

Chairman GRASSLEY. Another question. In addition to the DEA, what other Federal agencies or initiatives exist to educate young athletes about the dangers of steroids?

Mr. RANNAZZISI. I am sorry. Are you asking what other agencies?

Chairman GRASSLEY. Yes, in addition to DEA.

Mr. RANNAZZISI. As far as education, I really could not tell you what other agencies are educating.

Chairman GRASSLEY. Okay.

Mr. RANNAZZISI. I could give you what we are doing as far as education. We are involved extensively with high school and middle school athletic coaches and coaches associations. We talk to amateur and college teams. We have created literature on steroids for different target groups, like "Steroid Abuse for School-Aged Children," "Anabolic Steroids' Hidden Dangers," and "Anabolic Steroids in Today's Society." We have several pamphlets that we distribute when we go out to the schools. We make the students and the athletes aware of the dangers.

I have a 17-year-old who is very into working out. It is very difficult for him to keep his weight off, and he works very hard at it, but I can understand his frustration sometimes. And I can understand after looking at athletes and certain people who purport that these drugs are great, and you will enhance your performance, and you will look better, but he knows better. He knows the evils of these drugs. With this literature, we hope to get the word out to everybody.

Chairman GRASSLEY. Mr. Madden, I know you suggested the passage of the legislation, and we appreciate that admonition, and obviously, as you have heard Senator Biden say, we hope we can get that done. But beyond that, if there is one thing that you could change today regarding the use of performance-enhancing drugs in amateur sports, what would that be?

Mr. MADDEN. The legislation will take a big step towards that. At USADA, we need to increase our testing numbers. We need to increase our education; we need to broaden it out. And, most of all, we need more research monies for people like Dr. Catlin and other people around the world to do research into these drugs.

When we first started, Senator, we thought this was an athlete issue 3 years ago. But with Senator Biden's staff and ourselves and other Senate staff, this is a health issue for our young people. It is a health issue for teenagers, and I will tell you right now, this stuff is creeping now down into our grade schools and our middle schools.

People want to look buff. They not only want to perform as athletes, but they want to look buff. And this stuff is getting down into the lower levels. We need greater education. We need a change in the American public's position on drugs and sport. Now, hopefully, that would mean we cannot have drugs in sports at the professional level, the collegiate level, the high school level, and the grade school level. I believe that is where the American public wants to go. But right now, the public is sitting back and they do not know what is going on within a person's body health-wise. They do not know that these steroids are illegal, and we need to change that through education.

Chairman GRASSLEY. Where does the motivation for the use of steroids begin? You know, in my opening statement I talked about coaches and kids wanting to satisfy coaches. Is it with the athletes or the coaches or where? I suppose it is all of the above, but some other group?

Mr. MADDEN. From the BALCO investigation and our work with the Department of Justice and the U.S. Attorney for the Northern District of California and our speaking with athletes, I can assure you that it begins with the coaches. The coaches have a strong role to play in this. In our conversations with athletes, it has been suggested by their coaches that they are near the pinnacle of Olympic sport or professional sport, and if they are willing to take this prohibited substance, this illegal substance, then they can reach out and fulfill their dreams of Olympic medals. And it gets down to base situations of money, medals, fame. That is what our athletes want. The vast majority of our athletes are clean, but there is a group of athletes that will do anything to be successful.

Chairman GRASSLEY. Mr. Martin, what effect do you believe that steroid use has or the perception that use has on the Olympics?

Mr. MARTIN. We have been fighting steroids in the Olympics now, as Mr. Madden said, since the revelations surrounding BALCO. Certainly, as Terry mentioned, use of other performance-enhancing methods and products goes back decades. There is no question about it. Why does it happen? I think it is because of the reasons that Terry said—fame, riches.

Do coaches have a role in this? Absolutely they do. When we hire a new coach at Michigan, what do I tell them? I tell them: You win in the classroom first. These are student-athletes, and they are students first. You win in the classroom first. Then you win in the community, meaning these kids are good community citizens. They contribute to society. I want them on the front page of the sports section, not the front page of the first section. And then you win on the court of competition.

So the culture surrounding coaches I think is critical with respect to sport in general. That certainly applies at the pinnacle, the Olympics, and I think it is going to be very important that USADA and the USOC, with the support of Washington, start taking a stronger stand at looking at the medical folks who are involved in the Olympics, as well as their trainers, because that is clearly, in my mind, where it starts.

Chairman GRASSLEY. Senator Biden.

Senator BIDEN. Thank you, gentlemen. I think Senator Grassley has hit on it. Let's assume for the moment we succeed in getting

the law changed. Going back to my other hat, back in the old days when I was chairman of the Judiciary Committee, I spent a lot of time, probably 25 years of my career, on dealing with the drug problem period, not just steroids but all drugs. I have been working with the DEA for well over two decades.

The most disturbing thing about the performance-enhancing substances that I have read is the Kaiser Family Foundation research poll. It said that nearly three-quarters of the kids say they want to emulate professional athletes, but more than half of these kids believe that their sports heroes are using performance-enhancing drugs. I won't name anybody because it will by implication implicate them, and I do not know. But let's assume Joe DiMaggio was alive still. Joe DiMaggio is my hero. Three-quarters of the kids believe that they want to emulate the Joe DiMaggios of the world, and half of those kids believe that their specific hero uses steroids and uses performance-enhancing drugs to win. Now, you guys do this for a living, trying to deal with this. To me, as a plain old politician, that is a devastating idea that three-quarters of the kids want to emulate their heroes and half of that three-quarters believe their heroes use steroids or performance-enhancing drugs. It does not take anybody to be a professional like what we five do in our business to understand that that is a powerful incentive if you already believe that the person you want to emulate uses these drugs.

The second thing I found way back when I first introduced the first anabolic steroid prohibition was that most coaches were unwilling to speak out about this. Things have changed a lot, Mr. Martin, thank goodness. The only coach I could get to come to testify was Joe Paterno. Even though I am from Delaware and not Pennsylvania, I root for the Nittany Lions because Joe Paterno was the only one who had the nerve to show up back over a decade ago and say we should stop this. I could not get other coaches to do it.

I guess what I am trying to say is this: It seems to me, as a not very successful college athlete—I am referring to myself—as someone who desperately wanted to be a successful college athlete and saw himself in the same terms as kids that you have Director—they define themselves in terms of their athleticism. Even if they, in fact, are great students, and even if they do other things, these folks who compete think of themselves first as athletes. I did not have the capacity, but I had the desire. I wonder what I would have done as a six-foot-one, 155-pound flanker back who had good speed and great hands, knowing that across the line that outside linebacker was using steroids and could run the 40 in incredible time and was 235 pounds of muscle. I mean, the incentive to just use these drugs to survive—not to win medals, but to keep a starting spot on the team—is pretty profound.

Now, the University of Michigan has an incredible athletic program and an incredible academic program as well, but an incredible athletic program. But this also goes for kids playing Division II football or Division III sports. I mean, you know the guy on the other side of the line, and when you look across to the other side, all of a sudden Charlie left practice last year at the last season and he weighed 240 pounds, but he comes back at 275 and has more

muscle. It does not take a genius to figure this out. So what do you do?

So I guess the point I am trying to make—and there is a question in this—is that I think we put incredible pressure on professional athletes and college athletes, men and women, who do not see themselves as Olympians, who do not see themselves as all-Americans, but see themselves as wanting to have their college career follow their high school career where they were the star on the football team or the star on the basketball team or the whatever, with a lot more competition just to be able to play.

Absent a very broad and standardized testing program, I do not know how this works even if we change the law. I do not know how, unless we shame all the professional sports into a uniform standard, Mr. Madden, like the Olympics, unless we have a standard that is across all professional athletes and all college athletes, I do not know how what we are doing here will have the kind of impact the Senator and I desire and you desire, which is to save lives, to halt these incredible physical distortions that have physical consequences. And as a 60-year-old man who still thinks in terms of himself being an athlete—which is ridiculous, I know, but it is a mind-set that is hard to get rid of, isn't it, Bill? You know it is. I find it offensive that people with natural athletic ability in this meritocracy of sports, supposedly, who have real capacity are put at such an incredible disadvantage unless they are willing to cheat, unless they are willing to do something other than what God gave them in terms of their heart, their willpower, and their physique, to really succeed.

And so it really has—I mean, the one thing about America has been—I mean, this sounds corny, but this is about American ideals. This is about American standards. What do we do? People see the movie “The Hoosiers.” They see the movies—I mean, why do we do this? We do this because we teach in this country, and we believe in this country, that heart makes a difference, and that hard work makes a difference. The one place that is the ultimate leveling experience is the athletic field. Was it Churchill who said that England's success—and I am paraphrasing—was won on the playing fields of Eton?

So what do we do? How do you get—and here are my two questions, first to Mr. Madden, and then to you, Mr. Martin, and, Joe, if you want to jump in, just do it. But it is in their sort of bailiwick. That is, are the standards for testing any different in other major countries in the world? Are we the odd man out the way we do it in terms of our professional sports or our Olympic athletes or our premier college athletes? Do other countries, Terry, have different standards, not relative to the Olympics but relative to competition in their own countries? Is there any country to emulate in terms of how they did this? Mr. Martin, what do you think the reaction would be among your colleagues, the athletic directors across America in Division I and II and III in college sports, if, in fact, there was a uniform testing program like exists at the Olympics, that every athlete at every division in every sport had to be tested before the season began, in mid-season, I mean, if there was a standard?

I know we have civil liberties questions, and I know we have privacy questions, but what do you think the response would be if there was promulgated—and I am not suggesting we are going to legislate this—if there was promulgated such a standard that was collegiate-wide in terms of testing.

They are my two questions. Terry, if you would begin?

Mr. MADDEN. Senator, first let me address the other countries issue. Last March, we have had over 130 countries sign on to the World Anti-Doping Code, so testing should become pretty equal across the world in Olympic sport. Now, the problem is the view of the rest of the world toward our professional sports.

Senator BIDEN. U.S. professional sports.

Mr. MADDEN. U.S. professional sports. There are problems in cycling. There are problems in soccer, and in other professional sports overseas, but they appear to be addressing them by signing on to the World Anti-Doping Code.

Senator BIDEN. So the World Soccer Federation or organization is signing on to the U.S. Olympic Anti-Doping Code standard?

Mr. MADDEN. Well, they will be signing on to the World Anti-Doping Code, of which we are part.

Senator BIDEN. We are part of. Yes, I am sorry.

Mr. MADDEN. So they are signing on, so testing around the world should be pretty level within the next 12 months.

Now, the viewpoint from the international community of the U.S. is reflected in our professional sports because they follow our professional sports. What we have is the NFL with a pretty solid testing program. In fact, they just opened up a second laboratory with us at the University of Utah. Baseball, the NBA, and the NHL need to raise their programs. The NBA and NHL are basic—NBA is basically a street drugs program and does not do much with performance-enhancing drugs. Major League Baseball has none of the tenets of a solid testing program. They do not test year-round. They do not test for a full list. They do not test unannounced. And their sanctions are extremely weak.

So the international viewpoint of Olympic sport unfortunately comes from the view of our professional sports. If we can raise the levels of our professional sports up to what the Olympic standards are for Olympic athletes, people would begin to then believe that the United States is a clean country. Right now, the perception out there is that we are not a clean country. I mean, it is cut-and-dried that we have problems.

Senator BIDEN. I was going to ask you that because that is my perception as I travel around the world. And you know what I find absolutely amazing? I find this absolutely amazing. The conjunction of our attitude as exposed by Abu Ghraib toward the notion of human rights, the perception of us today, rightly or wrongly, about the meritocracy of sport, which is non-existent around the rest of the world as they look at us, it is to me absolutely beyond my ability to understand why we do not understand that the single greatest value that we exported to the world for the last 200 years, this notion of we are a meritocracy, this is the one unique place in the world, how much damage is being done to that by things that have nothing to do with foreign policy, like what you are talking about. It is astounding to me.

Mr. MADDEN. I guess the good news is, out of the BALCO investigation in Northern California, that international perception has changed for the Olympic athletes, at least. We are going after them. We are going after the drug cheats, and that is what they are. It is cut-and-dried. They are cheating on their fellow competitors. They are cheating the American public. And when they go overseas, they are cheating international athletes.

Senator BIDEN. The reason I mention this, remember how we felt as a Nation when the Berlin Wall was still up about East German athletes. And remember, it was not about the athletes. It was viewed as a window into the ethics of communism in East Germany. It was viewed as a logical extension of how they deal with everything regarding human nature. And it was used by us as an example of why this was a corrupt, defunct system—not just their athletic system, their whole system.

Now, why baseball players in America, why professional athletes, why owners—well, the owners, that is not fair because the owners are pushing hard—why they do not understand how, to a lesser degree but nonetheless similarly, that same kind of reasoning is flipped on us when we talk about this issue. It is understandable to me and that is why I was so happy when the President mentioned this legislation in his State of the Union address.

But, anyway, I do not mean to go off, but I really think this is so much bigger than sport. I know you may think I am exaggerating this, but I think this is so much bigger than just whether or not an 18-year-old Joe Biden at six-one, 156 pounds is at a disadvantage. It is so much bigger than that. It goes to the essence of who we are.

Mr. MADDEN. We are in the business. We do not think you are blowing it up bigger than it is.

Senator BIDEN. Bill—and then I will cease, Mr. Chairman—would you respond to the issue about where your colleagues are these days on how to deal with it?

Mr. MARTIN. First of all, Senator, I certainly appreciate your remarks, and you are right on target, particularly as it deals with a national standard that is uniform, not only across NCAA sports from Division I to the Division III, but we have to take a hard look at the consistency and include all of our professional sports, too. There is no question about that. Your mention of the Kaiser Foundation research, three-fourths of the high school kids and half of those, even though they know their heroes are taking drugs, no problem, I mean, that is a cultural issue and there is no silver bullet. But we have got to change the culture, and that is tough love. It is what Terry is doing at USADA in coming down hard on track and field. We read about it every single day. But what we are doing, we are in the process of changing the culture, and it is not easy. Terry has had some personal abuse about it—he can tell you about it—as he goes after that sport and the cheats in it. But we are more interested, wearing my Olympic hat, in protecting the rights of the innocent guys and gals who play safely and by fair rules and do not dope up than we are the few that do not play according to the rules.

I can tell you that across Division I and to Division III, there would be absolute unanimous approval of one consistent standard.

The only question would be the resources to do it. We are all walking in lockstep on that issue.

I do want to say that in my time at Michigan and beyond, there has been only one incident where we have tested positive for steroid use. The big problem with collegiate athletics, frankly, and with college life in general is alcohol. It is not steroids. It is not supplements. It is alcohol. And that is really what our society has to deal with with kids at that age. We have had one incident of steroid use where there was a positive test in 13 years.

Senator BIDEN. Thank you.

Thank you, Mr. Chairman.

Chairman GRASSLEY. Thank you.

I have just a couple of short questions for two of you, and then we will go on to the next panel.

Mr. Madden, is USADA planning to decide the pending cases of several athletes suspected of using banned substances prior to the Olympics?

Mr. MADDEN. Senator, for any athlete who makes the team going to Athens, their case will be decided before Athens.

Chairman GRASSLEY. Okay. And, Mr. Martin, you have just touched on this a little bit, but let me be a little more specific. You talked about the need for common standards between Olympic, NCAA, and professional sports. Would you extend this need for a common standard to include the penalties associated with positive tests? For example, the penalties you mentioned for college athletes seem weak compared to the sanctions imposed by USADA.

Mr. MARTIN. I think that is correct. I would study that further. Today I would not look at it. I think the real issue is our professional sports because those are the heroes, those are who the fifth graders emulate and look up to. We have got to work on the professional leagues and bring them down. We have got to bring Don Fehr, head of Major League Baseball Players Association, into the fold. He is a very good, solid guy, I know, but there needs to be a culture change there. And, Senator Biden, if I was that 156-pound flanker and you have got an outside linebacker at 230 pounds, I would run the other way.

Senator BIDEN. I occasionally did.

[Laughter.]

Senator BIDEN. It is called cutting across the grain. But, man, when you miss, it hurts.

Chairman GRASSLEY. And in thanking you, I want to encourage you to be what I believe; that in America one person can make a great deal of difference. To those of you that are here at the table trying to make a difference, I want to encourage you, with your stature, to continue to turn this thing around.

Thank you very much.

Chairman GRASSLEY. Would the second panel come as I announce you? Our first witness, who we will refer to as Mr. John Doe, is a Division I-A football player who will be testifying anonymously. He will tell us about his experience with the pressure to use steroids both on the high school and college level. He will tell us how easy it is to get steroids and other performance-enhancing drugs. He will also tell us about many of his teammates who have abused steroids.

The second witness, Curtis Wenzlaff, will be speaking about his experience both distributing and using steroids. Mr. Wenzlaff sold steroids to professional athletes, including professional baseball players, like Jose Conseco. He also took steroids while in high school and college, and he will speak about that.

Then we have Donald Hooten. Tragically, Mr. Hooten's son, Taylor, committed suicide as a result of the abuse of steroids. He will tell us about the alarming percentage of American youths who are taking these.

And then we will hear from Dr. Donald Catlin, currently professor at the UCLA School of Medicine. Dr. Catlin is internationally recognized for his knowledge on the abuse of steroids and other forms of doping in fields such as drug testing and athletics. Dr. Catlin has also served on committees, both national and international, that deal with drugs and sports.

I want to thank all of you for coming today, and let me ask my staff, I assume we should wait until we get John Doe out here. Is that right? Is he going to come right away, then? Yes. So before you start, the way we are going to do this is we are going to have Mr. John Doe testify first, and then Mr. Wenzlaff, then Mr. Hooten, and then Mr. Catlin. So it is kind of the way you are seated here. So we will just wait for a minute for Mr. John Doe.

[Pause.]

Chairman GRASSLEY. We are going to call on you, Mr. Doe, to be the first witness. Let me ask my staff just so I know I do not harm Mr. Doe in any way. We are going to have all four witnesses testify first, and then ask questions of each one. So, Mr. Doe, would you proceed, please?

**STATEMENT OF JOHN DOE [HIDDEN WITNESS], COLLEGE
ATHLETE, NCAA DIVISION I FOOTBALL TEAM**

Mr. DOE. First I would like to thank the Caucus on International Narcotics Control for giving me the opportunity to address you regarding an issue I believe has the potential to dramatically change many people's opinion on both amateur and professional sports.

I have spent the last 4 years as a walk-on at the varsity level of a Division I football program. Anyone watching college football has inevitably watched the school I played for at least once during the fall season when they are broadcast on national television two to three games a year. I wish to not give any more information on the school as to protect both my identity and the school's.

I would, however, like everyone listening to keep in mind that my stories reflect on other big time Division I programs. I can tell you this because college football shares the common mentality around the Nation, and that is you are either big or fast, maybe even both. A certain percentage of players will potentially sacrifice their college eligibility in order to gain an edge in their competition through the use of steroids.

Growing up, I participated in a number of sports. In high school, I concentrated on football and track. During high school, I became aware of various substances that were touted to enhance muscle growth, and indirectly, athletic performance. These products ran the board from high protein dietary supplements to illegal anabolic steroids. They all were readily available.

The transition from a high school football team to a Division I school was obviously tremendous. The talent level, experience level and physical presence of the players seemed to have increased by five-fold at least. When first arriving at a program like this, the temptation to use steroids is great because of the surrounding players who quite obviously have taken the chance and have used drugs to gain physical strength. Even more alluring was the prospect of earning a spot on the offense, defense or special teams, which would become much easier to achieve by using steroids and gaining 20 to 30 pounds of muscle.

Another part of the allure of using steroids is that they will give the user immediate results. During my college athletic career I was able to gain weight, about 20 pounds without the use of steroids and improved my strength and time in the 40-yard dash. Even after achieving strength and speed gains, however, the coaches encouraged me to make more strength and weight gains as rapidly as I could. In retrospect, the use of steroids would have most likely given me additional strength and the ability to play more. This is enough to create the strong temptation to take steroids in that situation.

As far as steroid use on my team, with careful observation, it became evident that many players on my football team were using steroids at some point during their career. I have evidence from a current friend and a roommate that I lived with at the time. He lived with another player during the time who supplied 7 to 8 players on the team with these steroids. Many of these players played significant time in games and most were starters on either offense or defense. In addition, there could be other players using steroids that I was not aware of during my career, and in hindsight, it becomes very probable, that several other players were, in fact, using steroids.

You may be asking yourself how these players get around the NCAA random drug testing policy. This policy is rather weak, however, and fairly predictable, with the drug test falling in roughly the same window of time each year. The NCAA claims to be protecting the health and safety of college athletes, but in my opinion, they have very little effect on the illegal use of drugs in college athletics.

A positive is that I was able to attend a college program that strongly discourages the use of steroids. Upon speaking with a collegiate baseball player that attended a different Division I school, I learned that use of steroids can be far worse than I imagined. I learned that between 80 and 90 percent of his starting lineup use steroids. Players have made tremendous weight gains, as much as 50 pounds, that cannot be explained by too many other methods.

Part of the reason I was able to stay away from the use of steroids is because of my prior knowledge of the damaging effects that all anabolic steroids have on the body. Also being part of a network of players that refused to take any illegal substances, even if it would be the difference maker in their college football career. It is not easy, however, to ignore the option of using drugs to gain an edge, especially when a coach encourages a player to gain weight in order to play or do whatever it takes to get bigger and stronger.

I hope my testimony today will be helpful to you in your efforts to eliminate the use of steroids and other performance-enhancing drugs in sports. I'd like to try and respond to any question you might have for me at this time.

[The prepared statement of Mr. Doe follows:]

TESTIMONY OF JOHN DOE [HIDDEN WITNESS] COLLEGE ATHLETE,
NCAA DIVISION I FOOTBALL TEAM

I would like to thank the Caucus On International Narcotics Control for giving me the opportunity to address you regarding an issue I believe has the potential to destroy the integrity of many sports.

I have spent the past 4 years as a "walk-on" at the varsity level of a Division I program. Anyone watching college football has inevitably watched the school I played at least once during the fall season when they are broadcast on national television 2-3 games a year. I wish to not give any more information on the school as to protect both my identity and the school's integrity.

My participation included practice during the regular season, year round conditioning, spring practice, and two-a-day practices in August prior to the season. I was on the team for four years, and it was a rewarding experience.

I would, however, like everyone listening to keep in mind that my stories reflect on other big time division I programs. I can tell you this because college football shares a common mentality around the nation, and that is you're either big or fast, maybe even both. A certain percentage of players will potentially sacrifice their college eligibility in order to gain an edge on their competition.

Growing up, I participated in a number of sports. In high school, I concentrated on football and track. During high school, I became aware of various substances that were touted to enhance muscle growth and, indirectly, athletic performance. These products ran the gamut from high protein dietary supplements to illegal anabolic steroids and were readily available.

The transition from a high school football team to a Division I school was obviously tremendous. The talent level, experience level, and physical presence of the players seems to increase exponentially. When first arriving at a program like this, the temptation to use steroids is great because of the surrounding players who quite obviously have used drugs to gain physical strength. Even more alluring is the prospect of earning a spot on the offense, defense or special teams which would become much easier to achieve by using steroids and gaining 20-30 lbs. of muscle.

When I moved up to a Division I program, the level of ability and the pressure to excel increased exponentially. Even though the use of steroids was discouraged in my program, there were individuals on the team who used them and appeared to gain some benefit from them.

Part of the allure of steroids is that they will give you a competitive edge. During my college athletic career, I was able to gain about thirty pounds, substantially improve my strength, and cut my time in the forty-yard run to 4.5 seconds. I did this without the use of steroids. After I ran the 4.5 forty, my strength coach told me that I now needed to get bigger and stronger. How much bigger, stronger and faster would I have been had I taken steroids? The temptation was great. The use of steroids probably would have resulted in my moving up the depth chart and thus getting more playing time and possibly receiving an athletic scholarship.

Without careful observation it became evident that many players on my football team were using steroids at some time during their career. This is because my current friend and roommate lived with a player that supplied 7-8 other players on the team with these steroids. Many of these players played significant time in games and most were starters on either offense or defense. There could easily be other players using steroids that I was not aware of during my career and in hindsight it becomes very probable that several other people on the team used steroids without many people knowing. You may be asking yourself how these players get around the NCAA random drug testing policy. This policy is rather weak however, and fairly predictable with the drug tests falling in roughly the same window of time each year. The NCAA claims to be protecting the health and safety of college athletes, but in my opinion has very little pull on the illegal use of drugs in college athletics.

Despite my love for the game of football, or maybe because of it, I was unwilling to make the Faustian bargain of using steroids or other illegal performance-enhancing substances in order to play. No athlete should have to trade his integrity in order to gain a competitive edge. The victims of performance-enhancing substances are not just the users, who face various long-term health consequences, but those who choose not to use them and lose the equal opportunity to compete. I hope my

testimony today will be helpful to you in your efforts to eliminate the use of steroids and other performance-enhancing drugs in sports.

Part of the reason I was able to stay away from the use of steroids is because of my prior knowledge to the damaging effects that all anabolic steroids have on the body. Another positive is being fortunate enough to be part of a program that strongly discourages the use of steroids, and a network of players that refuse to take any illegal substances even if it would be the difference maker in their college football career. It was not easy however to ignore the option of using drugs to gain an edge, especially when a coach encourages a player to gain weight in order to play or "do whatever it takes to get stronger and bigger."

Chairman GRASSLEY. We will wait for questions until we hear from the other three, and then we will ask you questions. So please just sit there.

Mr. DOE. Okay.

Chairman GRASSLEY. Thank you very much, Mr. Doe.

Now Mr. Wenzlaff, Curtis Wenzlaff.

**STATEMENT OF CURTIS A. WENZLAFF, CONVICT,
FORMER USER AND DEALER OF ILLEGAL STEROIDS**

Mr. WENZLAFF. Good day, Mr. Grassley, members of the Drug Caucus, ladies and gentlemen. I appreciate the opportunity to share with you my personal experience with anabolic steroids, as well as to offer you my opinion on several related issues.

I began using anabolic steroids initially for only one purpose. That was to help me in my quest to earn a college athletic scholarship. I began taking steroids in the summer of 1981 just prior to my senior year of high school. Steroids were also an option for me because of guilt by association, that is, I trained at a gym in Southern California that was frequented by many notable bodybuilders. My close association with world-class bodybuilders and other athletes provided a constant source of steroid knowledge. I quickly learned steroid names, sources, uses, doses, techniques, arrays and combination training cycles.

At that time, my increasing knowledge of which steroids to use for certain purposes, and how to administer them, I believe, allowed me a greater sophistication of steroid knowledge than an average steroid user. For example, as a teenager I knew specific drugs, when taken in much smaller amounts than their dosages were packaged, can be as much as ten times the strength of testosterone. Clearly, this is not common knowledge even among serious steroid users. Please understand, it is now 23 years later, and this trade secret remains virtually unknown by most steroid users. Therefore, when I say I had a substantial working knowledge of steroids as a teenager, the point is not overstated.

Although I did take steroids, I never abused their use. During my training, I was carefully monitored by experienced users and trainers. However, I personally knew others who took steroids based on the belief that more is better, and more often is best. Some of those individuals experienced injury and a variety of illnesses, and a few who continued taking steroids for years with little if any time off, have died.

Frankly, in my opinion, most steroid users, particularly those who are experimenting, are virtually clueless regarding steroid use. I would project that 9 out of every 10 users are taking whatever he or she is able to get their hands on, even though the individual may have had the intention of obtaining a completely different

steroid. And if the individual is able to acquire a steroid, he or she will likely take the steroid without assurance the steroid can benefit the user in the way the user wants to experience gains. Furthermore, most steroid users, particularly beginners, disregard monitoring the effects on the body during the administration weeks of the cycle, if the user even understands what a cycle actually is.

Again, because of my extensive knowledge of steroid use and resources, I believe I was the exception. For example, I underwent weekly blood tests, daily blood pressure readings, morning, pre-workout, post-workout and middle of the night. Often I would be given a day off of training if my blood pressure was too high first thing in the morning. Weekly urine tests and analyses were part of the regimen. I seriously doubt if there are more than a handful of people even today under the same kind of medical scrutiny I experienced. Hence, because of the stringent attention to testing and monitoring, which actually guided both my training and use of steroids, I reiterate that I did not abuse steroids by indiscriminate consumption. I was closely associated with individuals who possessed a wealth of knowledge and experience in the administration of anabolic steroids. Clearly, their careful guidance during this time I used steroids prevented misuse. Unfortunately, not all steroid users have the resources I did. It is those individuals that are in danger of ruining their health and potentially their lives.

The Anabolic Steroid Control Act of 1990 was extremely effective. In the mid-1980s it was nothing to see a kid in high school with 20-inch arms; now it is rare.

And now, to throw a different light on the subject, there is also the growing issue of fake steroids. I will be so bold as to say that 95 percent of the anabolic steroids today are fake. Keep in mind there are virtually no anabolic steroids being produced domestically. Therefore, those who supply steroids to eager-to-try users are forced to locate international sources. With that as one of the dwindling number of options, many diluted or totally ineffective steroids find their way into America. Hence the introduction of fake steroids.

The DEA is aware of the enormous amount of fake steroids available. Why else is there a special task force specifically to address this problem? The bottom line is that while 95 percent of the anabolic steroids in circulation, in my opinion, are fake, initially neither the provider nor the end user are aware the product is virtually useless.

What the panel must understand is there are multiple layers of steroid users. Some layers are sophisticated but most are not. Some users have extensive knowledge or their trainer has extensive knowledge. However, the vast majority, in my opinion, simply do not. While some of the users have direct access to both quality products and quality distributors, there are others who have indirect access, that is, friends of friends of friends who think they have a reliable and authentic distributor. To further explain, at the top of the pyramid are those who are established professional athletes with lots of money and influence. Individuals like that can afford top of the line steroids. Every distributor wants quality customers. If they get them, they will do all they can to keep them. Hence, the distributor will provide A-1 products.

Among professional athletes the word spreads quietly, and the distributor has the good fortune of having reliable customers who are willing to pay top dollar. Those users get the good stuff and the right stuff.

Then at the opposite end of the spectrum are the high school and college kids who often do not have access to real distributors, but who have access to a friend of the friend scenario previously described. These are the kids who often have limited funds, have little if any influence, and they're pretty much doing nothing but experimenting.

These, therefore, are the kids who are prime candidates for less than top quality steroids, often diluted or inappropriate and often simply fake. These are the placebo steroids. You may ask, if a placebo, why do they work? They do not. But many of the users think they do, and often that is sufficient motivation for a young athlete to work extra hard in the gym, eat extra quality food and train overall harder than they ever did before. When that happens, what do you think the end result will be? The kid will grow. The kid will get stronger. The kid will likely be in the best shape of his life. Also, as we all know, the teen years are the time when the male body produces its greatest amount of testosterone without any need of outside help.

Furthermore, there are outside influences on young athletes that may cause some to seek steroids. One such influence is the media, which place an emphasis on the biggest, the strongest, the fastest. Secondly, many high school and college coaches expect their athletes to spend more time in the weight room, and perhaps most alarming is the parent who either consciously or unconsciously pushes their son or daughter into steroid use with their conscious or unconscious expectation of the athletic prowess, college scholarship and professional athlete expectations. Of course, this is not to say that every athlete who experiments with steroids is doing it with the approval of parents. Most high school athletes who experiment are doing so without parent approval or knowledge.

Whatever the motivation, high school athletes appear to be working harder at a younger age. Therefore, the result is high school athletes are simply getting bigger without the influence of steroids. Nevertheless, there are those who will capitalize on the kids and provide them with steroids whether they are real or fake. All the distributor cares about is the money is real.

Let us be realistic. As long as there are incomprehensible amounts of money paid to professional athletes, offered by economically insane professional sports team owners or sports product companies, there will continue to be a problem with anabolic steroid use. Case in point: how relevant does a potential health risk later in life stack up against a \$20 million signing bonus and a shoe contract worth five times that amount to an athletically gifted teenager or a young adult in his or her prime of life? Are kids, perhaps driven by their parents and friends, going to think about the distant future, or are they going to live for the moment? The moment wins practically every time.

The way to tighten a grip on steroid usage is to right now confront local pharmacies. As well, believe it or not, veterinarians are able to provide both human and animal steroids which can be used

by humans. They, too, should also be heavily scrutinized. Anyone that has access to a pharmacist or a vet on a personal level can potentially have access to a full spectrum of anabolic steroids.

In closing, the panel must understand the comments I made today reflect what I knew about steroid use in the 1980s and early 1990s. What I shared with you today may or may not accurately describe the current situation. Thankfully, I closed that chapter of my life well over 10 years ago, and therefore, can report only on what I once knew. However, I believe the conditions referenced still exist, but it is more important to me that you understand I have no present-day knowledge. I have disassociated myself from previous friends and contacts. I appear here today because I was asked to share what I knew, not what I know, and that is a lifestyle I no longer follow.

Mr. Chairman, Caucus members, ladies and gentlemen, thank you for the opportunity to share my experiences and my thoughts. I wish you much success in your daunting task.

[The prepared statement of Mr. Wenzlaff follows:]

TESTIMONY OF CURTIS A. WENZLAFF, CONVICT,
FORMER USER AND DEALER OF ILLEGAL DRUGS

Good day Mr. Grassley, members of the Drug Caucus, ladies and gentlemen:

I appreciate the opportunity to share with you my personal experience with anabolic steroids, as well as offer you my opinion on several related issues.

I began using anabolic steroids, initially, for only one purpose. That purpose was to help me in my quest to earn a college athletic scholarship. I began taking steroids in the summer of 1981, just prior to my senior year of high school. Steroids were always an option for me because of "guilt by association", i.e., I trained at a gym in Southern California that was frequented by many notable bodybuilders. My close association with world-class bodybuilders and other athletes, provided a constant source of steroid knowledge. I quickly learned steroid names, sources, uses, doses, techniques, arrays, and combination training cycles.

At that time my increasing knowledge of which steroids to use for certain purposes, and how to administer them, I believe, allowed me a greater sophistication of steroid knowledge than an "average" steroid user. For example, as a teenager I knew specific drugs, when taken in much smaller amounts than their dosages are packaged, can be as much as ten times the strength of testosterone. Clearly, this is not common knowledge even among serious steroid users. Please understand, it is now twenty-three years later, and this "trade-secret" remains virtually unknown by most steroid users. Therefore, when I say I had a substantial working knowledge of steroids as a teenager, the point is not overstated.

Although I did take steroids, I never "abused" their use. During my training, I was carefully monitored by experienced users and trainers. However, I personally knew others who took steroids based on the belief that "more is better, and more often is best". Some of those individuals experienced injury and a variety of illnesses, and a few who continued taking steroids for years without little if any time off, have died.

Frankly, in my opinion, most steroid users, particularly those who are experimenting, are virtually clueless regarding steroid use. I would project that nine out of every ten users are taking whatever he or she is able to get their hands on, even though the individual may have had the intention of obtaining a completely other steroid. And, if the individual is able to acquire a steroid, he or she will likely take the steroid without any assurance the steroid can benefit the user in the way the user wants to experience gains. Furthermore, most steroid users, particularly beginners, disregard monitoring the effects on the body during the administration weeks of the cycle . . . if the user even understands what a cycle actually is.

Again, because of my extensive knowledge of steroid use and resources, I believe I was the exception. For example, I underwent weekly blood tests and daily blood pressure readings (morning, pre-work out, post-work out, and middle of the night). Often, I would be given a day off from training if my blood pressure was too high first thing in the morning. Weekly urine tests and analysis were part of the regimen. I seriously doubt if there are more than a handful of people, even today, under the same kind of medical scrutiny, I experienced. Hence, because of the stringent

attention to testing and monitoring, which actually guided both my training and use of steroids, I reiterate I did not “abuse” steroids by indiscriminate consumption. I was closely associated with individuals who possessed a wealth of knowledge and experience in the administration of anabolic steroids. Clearly, their careful guidance during the time I used steroids prevented misuse. Unfortunately, not all steroid users have the resources I did. It is those individuals that are in danger of ruining their health, and potentially their life.

The Anabolic Steroid Control Act of 1990 was extremely effective. In the mid-1980s, it was nothing to see a kid in high school with twenty inch arms; now, it is rare. And now, to throw a different light on the subject, there is also the growing issue of fake steroids. I will be so bold as to say that 95% of the Anabolic Steroids today are fake! Keep in mind there are virtually no anabolic steroids being produced domestically. Therefore, those who supply steroids to eager-to-try users, are forced to locate international sources. With that as one of a dwindling number of options, many diluted or totally ineffective steroids find their way into America. Hence, the introduction of fake steroids.

The DEA is aware of the enormous amount of fake steroids available. Why else is there a special task force specifically to address this problem? The bottom line is that while 95% of the anabolic steroids in circulation are fake, initially neither the provider nor the end user are aware the product is virtually useless.

Let's be realistic . . . as long as there are incomprehensible amounts of money paid to professional athletes, offered by economically insane professional sports team owners, or sports product companies, there will continue to be a problem with anabolic steroid use. Case in point . . . how relevant does a “potential” health risk later in life (steroid use) stack up against a \$10 million signing bonus and a shoe contract worth five times that amount, to an athletically-gifted teenager, or a young adult in his or her prime of life? Are kids, perhaps driven by their parents and friends, going to think about the distant future, or are they going to live for the moment? The moment wins practically every time.

The way to tighten the grip of steroid usage is to right now confront local pharmacies. As well, believe it or not, veterinarians are able to provide both human and animal steroids, which can be used by humans. They too, should also be heavily scrutinized. Anyone that has access to a pharmacist or a vet, on a personal level, can potentially have access to a full spectrum of anabolic steroids.

Mr. Chairman, Caucus Members, ladies and gentlemen, thank you for the opportunity to share my experiences and my thoughts. I wish you much success in your daunting task.

Chairman GRASSLEY. Thank you, Mr. Wenzlaff.
Now Mr. Hooten.

**STATEMENT OF DON HOOTEN, FATHER;
SON COMMITTED SUICIDE AFTER USING STEROIDS**

Mr. HOOTEN. Senator Grassley and Senator Biden, on July 15th of 2003, just one year ago this week, my youngest son, Taylor, took his own life. Taylor had just turned 17 and in two weeks would have been starting his senior year at Plano West Senior High School. This past spring he would have been a starting pitcher on his varsity baseball team, his dream. He made an excellent score on his SAT test, and Taylor and I were getting ready to start making college visits. He was in love, was convinced he had met the girl of his dreams and was already talking about marriage, as crazy as that sounds.

Taylor was well-liked by all who knew him. Adults tell us he was one of the nicest and most well-mannered young men they knew. He was always smiling. His friends tell us he was one of the nicest kids on campus, a ladies man that was a real charmer. Over 3,000 people attended his funeral.

Nearly everyone that has visited us since this tragic event has told us that if they had been asked to predict which of the kids at Plano Senior High School would have been prone to commit such

a tragic act, each and every one of them said that Taylor would have been at the very bottom of their list.

So why would such a nice young man, with his whole life in front of him, take such an irrational step? I am convinced that anabolic steroids played a significant role in causing the severe depression that resulted in his suicide. Yes, steroids, a drug that I have recently learned can be just as lethal as any of the other classical drugs that we are so familiar with; heroin, cocaine and others. And I have learned that what happened to Taylor, the events leading up to and including his suicide, are right out of the textbook on steroids.

Taylor was a pitcher. During the fall of his junior year, his JV coach told this 6 foot 3, 175-pound young man, that he needed to get bigger in order to improve his chances of making the varsity baseball team.

Senator BIDEN. How old was he then, Mr. Hooten?

Mr. HOOTEN. He was 16-years-old.

Senator BIDEN. He was 6-3 what?

Mr. HOOTEN. 175, maybe 180 pounds.

I have been around baseball all my life. I have a cousin that plays major league ball; his older brother played Division I ball. I still do not understand why this coach told a 6 foot 3, 175-pound young man he needed to get bigger to throw a baseball. But he did. And whether his coach was correct or not, he did not follow up those instructions with advice on what exercise program to get on or what diet that he should take.

Well, Taylor took his coach's advice seriously, and somewhere along the line he made the decision to take anabolic steroids as a short-cut to help him reach his objective. Over the next four months Taylor did get bigger. He put on about 30 pounds and developed a number of the classical symptoms of steroid use. Moreover, his whole personality changed. He went through serious mood swings, ranging from periods of extreme anger to depression.

I did not know much about steroids until Taylor's death, but I have done a whole lot of reading in the meantime, and have had the opportunity to speak and work with a number of the world's experts on this subject, including guys like Dr. Gary Wadler of NYU, Dr. Harrison Pope from Harvard, and many others. In addition, several large news organizations, including the *New York Times*, CBS "60 Minutes II," CBS "48 Hours," Fox News Network and others, have turned over every stone they could in an effort to understand what happened here. And through their work, we have had multiple experts confirm that anabolic steroids are very capable of causing the kind of depression that Taylor experienced, severe enough to result in suicide.

The reason that I am here today is to share with you just a little of what I have learned about steroids so that you and others can benefit from our experience. I am absolutely committed to seeing that Taylor's death will not go in vain.

As we have learned, there are numerous types of anabolic steroids, and each and every one of them require a prescription. How do kids take steroids? They take them orally or they can be rubbed on their skin. Taylor, like many of the other kids, was using needles to inject steroids into his body. As dads, I want you just

to imagine for the moment how horrifying it was to go through his bedroom after the funeral and see his stash of vials, needles and syringes.

Who uses steroids? Many studies have been done, and most of the experts that I have been speaking with put the overall usage rate at somewhere between 4 and 5 percent of the total U.S. high school population. Several studies have put the use of steroids in my part of the country, the south, at about 11 percent of the total male population. These numbers really begin to take on more significance when we understand that this 11 percent is concentrated in the athletic community, a subset of the overall student population. The kids tell me that between one-third and one-half of the players on some of our local Plano High School football teams are juicing. These are 16- and 17-year-old kids.

Where do kids obtain their steroids? Steroids are sold by drug pushers. They do not call themselves drug pushers, but they are at almost any local gym, yes, in almost any local gym in your home communities where the big guys work out. Most of the steroids in our part of the country come in from Mexico and are then brought across the border, or they, as we have seen, can be easily purchased over the Internet. Let us not kid ourselves, these kids use steroids because they work well. They help the boys bulk up and give them a feeling that they are better in a particular sport than they are. And once some of the teammates start using steroids, other members of the team feel the need to use the drug, as we have seen, and as Senator Biden pointed out, just to remain competitive.

There are a whole list of longer-term physical side effects associated with steroid use that we could discuss. In short, there are virtually no organs in the body that are not negatively impacted by steroids. But there is another list of more immediate psychiatric dangers, and I want to go over them very briefly because of our experience with Taylor.

Even though athletes think that they are feeling better, most experience wide mood swings ranging from periods of violent, even homicidal behavior, known as “roid rages.” In addition, users can suffer from paranoid jealousy, extreme irritability, delusions and impaired judgment, resulting from feelings of invincibility.

In addition to the hypomanic symptoms that occur during steroid exposure, there can be equally dangerous depressive symptoms from steroid withdrawal. Even when the user stops taking steroids, severe bouts of depression can result. According to the DEA, the depression that follows steroid use is so severe that it can lead to suicide attempts, and that these effects can last for up to a year or more after the user stops taking the drugs.

You will be interested to know that Taylor told us, his doctor, and his closest confidants that he had stopped taking steroids about 2 months before he hanged himself.

Now, let me tell you just a little bit about what the steroid industry does to make it easy for their customers—our kids—to purchase their wares. We have already seen a huge exposure to that already this morning. I did a quick search for “steroids” on the Yahoo search engine, and it yielded over 2 million sites where information—accurate and inaccurate—can be found. When I put 3 words

into the Google search engine, “buy steroids on-line,” over 300,000 sites popped up.

Senators, all our kids need are a credit card number or a money order to have hard-core prescription anabolic steroids shipped right to their doorstep. Take a look for yourself when you get back to your office this afternoon. I was shocked to see how easy it is to purchase this junk, and I am certain you will be too.

Now, what can we do about it? I will divide my recommendations on this subject into two categories: What you, I believe, can do as Government officials and what we can do as citizens. As public officials, I encourage you to take steps to ensure that we have better testing and education in this area. I believe testing is crucial to controlling the abuse of steroids amongst the athletes. It is the only way to know for sure whether our kids are using these drugs, but our local Plano officials have come up with a multitude of excuses for not adopting such a policy in our local schools. First, they continue to bury their heads in the sand, repeating the worn-out line that there is not a steroid problem in our community. They go on to comment that even if there were a steroid problem, it is society’s problem to deal with, not theirs.

Some of our local officials expressed concern about the possible legal ramifications of such an approach, even though the U.S. Supreme Court has already affirmed the legality of such testing. Some say testing costs too much—somewhere between \$60 and \$200 per test—to which I say, “Costs too much?” I, for one, would rather see whatever money is required to be spent to protect our children from this deadly drug. The good news is there are ways of managing and focusing the testing and therefore the costs. Let us put testing on the list of funding priorities that we have for our schools and stack it up against the need for the next new athletic facility or other programs. I think our kids’ lives are worth it, and I hope you do too.

I strongly believe that education is the best weapon that we have in this fight because prevention is the best approach to reducing the demand for anabolic steroids. Current users, coaches and parents need to know about the hazards of its use. Our students need to understand they are not bulletproof and that these drugs can seriously harm them. But warning a 16-year-old young man about the dangers of having a heart attack or developing liver problems or other maladies when he turns 35 or 40 will most probably fall on deaf ears. That is why I believe coaches are the most important first targets for this testing because they are the key to solving this problem. Why? Because they are the ones positioned to reward the results of the kids that use steroids. They make the decision who makes the team and who does not, who makes the starting line-up or sits the bench.

We must take active steps to make our coaches more responsible and accountable for supervising the use of steroids by their teams. I feel strongly that we need coaches that are formally trained to recognize the symptoms of steroid abuse, trained to know what to do about it when they find it and held accountable for ensuring that their teams are steroid free.

Furthermore, I feel our coaches need to be certified to have to pass a minimum threshold of training and testing before being

turned loose to supervise our kids. Today's group of high school coaches, at least in my part of the country, receive no training whatsoever on the subject of steroids and are, in my experience, disavowing any responsibility for challenging their athletes on this problem. As a matter of policy, our coaches must talk openly and actively with their teams about this topic, and we must insist that they enforce a ZERO-TOLERANCE policy on the issue of steroid abuse. Get caught using steroids, and the student is either put into a formal rehabilitation program or kicked off the team.

Yes, Senators, the coach may lose his number one pitcher, his star quarterback or runner for the season, but I am convinced that this drug abuse will not stop until our athletes are convinced that there are real consequences to this drug abuse. With the strong peer pressure to use steroids combined with the wonderful example that is being set by our professional athletes, I am certain that a slap on the wrist just is not enough to curb this rampant abuse.

To help fill this education void, we have just formed a nonprofit organization, foundation, the Taylor Hooten Foundation for Fighting Steroid Abuse. As far as we know, we are the Nation's first private organization that is organizing to fight this battle. We have just opened a new website and have begun a fundraising campaign targeted at raising \$5 million this year for a national education effort. We would like to find ways to work with you to make our foundation part of your effort moving forward.

There are other things you can do, such as strengthening the penalties for distribution and possession of this drug and finding ways to stop the flow of drugs across our borders, but we can talk about those ideas and others in the Q&A period.

Creative legislation is needed now. Doing nothing will ensure that steroid use will continue to grow. The demand for steroids continues to grow and has not been deterred by recent events. Coaches continue to look the other way and, for whatever reason, parents continue to push their kids to get that scholarship. Knowingly or unknowingly, our kids continue to be pressured into using steroids.

Let me close by telling you how much I appreciate you taking the time to listen to my message today and my sincere prayer is that some of the knowledge that I have shared with you in this message will help you better understand how you can help some boys and girls avoid the terrible fate that was Taylor's.

Thank you.

[The prepared statement of Mr. Hooten follows:]

STATEMENT OF DON HOOTEN, FATHER;
SON COMMITTED SUICIDE AFTER USING STEROIDS

On July 15th of 2003, just 1 year ago this week, our youngest son, Taylor, took his own life. Taylor had just turned 17 and was only 2 weeks away from beginning his senior year in High School. This past spring, he would have been a starting pitcher on the varsity baseball team, his dream. He had made an excellent score on his SAT test, and he and I were preparing to begin making college visits. He was in love and was convinced that he had met the girl of his dreams—he was already talking about marriage (as crazy as that sounds)! Taylor was well-liked by all who knew him—adults tell us he was one of the most well-mannered young men that they ever met—he was always smiling! His friends tell us that he was one of the nicest kids on campus, a ladies' man that was a real charmer. Over 3,000 people attended Taylor's funeral.

Nearly everyone that has visited with us since this tragic event has commented that if they had been asked to predict which of the kids at Plano West HS would

have been prone to commit such a tragic act, all said that Taylor would have been at the very bottom of their list.

So why would such a nice young man with his whole life in front of him take such an irrational step? I am convinced that anabolic steroids played a significant role in causing the severe depression that resulted in his suicide. Yes, steroids—a drug that I have learned can be just as lethal as any of the other “classical” drugs that we’ve heard so much about—heroin, cocaine, and others. And, I have learned that what happened to Taylor—the events leading up to and including his suicide—are right out of the “textbook” on steroids.

Taylor was a pitcher. During the fall of his junior year, his JV coach told this 6’3”, 175-pound young man that he needed to “get bigger” in order to improve his chances of making the varsity team. Senators, I’ve been around baseball all my life and I still haven’t figured out why he needed to be any bigger in order to throw a baseball. But, whether or not the coach was correct, he never backed up his directive with any instructions on what kind of diet or exercise program that he should follow to meet his goal.

Taylor took his coach’s advice seriously, and somewhere along the line, he made the decision to use anabolic steroids as a short-cut to help him reach his objective. Over the next four months, Taylor did “get bigger.” He put on about 30 pounds and developed a number of the classical physical side effects of steroid use. Moreover, his whole personality changed. He went through serious mood swings ranging from periods of extreme anger to periods of depression.

I didn’t know that much about steroids until after Taylor’s death. But, I have done a lot of reading in the meantime and have had the opportunity to speak with a number of the world’s experts on this subject, experts like Dr. Wadler from NYU and Dr. Pope from Harvard and others. In addition, several large news organizations (including the NY Times, CBS 60 Minutes and 48 Hours, Fox News Network, and others) have turned over every stone that they could in an effort to understand what happened here. And, through their work, we have had multiple experts confirm that anabolic steroids are very capable of causing the kind of depression that Taylor experienced, severe enough to result in suicide.

The reason that I am here today to share with you a little of what I’ve learned about steroids so that you will be able to benefit from our experience. I am absolutely committed to seeing that Taylor’s death will not go in vain.

There are numerous types of anabolic steroids—and each and every one of them requires a prescription.

How do kids take these steroids? Some take them orally or they can be rubbed on the skin. Taylor, like many kids, was using needles to inject steroids into his body. I want you to imagine for a moment how horrifying it was to go through his room after the funeral and find his stash of vials, needles and syringes.

Who uses steroids? Many studies have been done, and most of the experts that I’ve spoken with put the usage rate at about 4-5% of the total US High School population. Several studies have put the use of steroids at about 11% of the male population in some parts of the country—especially in the South where I come from. These numbers really begin to take on more significance if we assume that most of the steroid abusers are involved in athletics—a subset of the overall student population. The kids tell me that between one-third and one-half of the players on some of our local Plano football teams are “juicing”!

Where do kids obtain their steroids? Steroids are sold by drug pushers at most local gyms—yes, at almost any gym right in your home town where the big guys work out. Many of the steroids in our part of the country are purchased in Mexico and then brought across the border. Or, they can be easily purchased over the Internet.

Let’s not kid ourselves—our kids use steroids because they work well. They help the boys bulk up and give them the feeling that they are better in their particular sport than those players that are not taking steroids. And, once some of their teammates start using steroids, other members of the team feel the need to use the drug in order to remain competitive.

There are a whole list of longer-term physical side affects of steroid use which we could discuss—in short, there are virtually no organs in the body that are not negatively impacted by steroids. But, there is also another list, a list of more immediate psychiatric dangers. I want to go over them briefly, because of our experience with Taylor. Even though athletes think that they are feeling better, most experience wide mood swings ranging from periods of violent, even homicidal episodes known as “ROID rages.” In addition to these rages, users can suffer from: paranoid jealousy, extreme irritability, delusions, and impaired judgment resulting from feelings of invincibility.

In addition to the “hypomaniac” symptoms that can occur during steroid exposure, there can be equally dangerous depressive symptoms from steroid withdrawal. Even when the user stops using the drugs, severe bouts of depression can result. According to the DEA, that the depression that follows steroid use is so severe that it can lead to suicide attempts, and that these affects can last for a year or more after the abuser stops taking the drugs.

You will be interested to know that Taylor told us, his doctor, and his closest confidants that he had stopped taking steroids about 2 months before he hung himself.

Now, let me tell you a little bit about how the steroid industry is making it easy for our kids to purchase their wares!

A quick search for “steroids” using the Yahoo search engine yielded over 2 million sites where information, accurate and inaccurate, can be found. When I put the words “Buy, steroids, online” into the Google engine, over 300,000 sites popped up! Senators, all our kids need is a credit card number or a money order to have hard core prescription anabolic steroids delivered right to their doorstep!

Take a look for yourselves when you get back to your office. I was shocked to learn how easy it is to purchase this junk—I am certain that you will be too!

Now, *what can we do about it?*

I will divide my recommendations on this subject into two categories—what you can do as government officials and what we can do as citizens.

As public officials, I encourage you to take steps to insure that better testing and education is made available.

I believe *testing is a crucial way of controlling the abuse of steroids among athletes*—it is the *only* way to know for sure whether our kids are using these drugs.

But, our local Plano officials have come up with a multitude of excuses for not adopting such a policy in our schools. They continue to bury their head in the sand and keep repeating the worn out line that “there is not a steroid problem in Plano.” They go on to comment that even if there were a steroid problem—that this is society’s problem to deal with, not theirs. Some of my local officials have expressed concern about the possible legal ramifications of such an approach, even though the US Supreme Court has already affirmed the legality of drug testing.

Some say that testing costs too much—somewhere between \$60 and \$200. Costs too much? I for one would rather see whatever money is required to be spent to protect our children from this deadly drug. The good news is that there are ways of managing these costs.

Let’s put testing on the list of funding priorities that we have for our schools and stack it up against the need for new athletic facilities and other programs. I think our kids’ lives are worth it, and I hope you do too.

I strongly believe that the best weapon that we have in this fight is education, because *prevention* is the best approach to reducing the demand for anabolic steroids.

Current users, coaches, and parents need to know about the hazards of its use. Our students need to understand that they are not “bullet proof” and that these drugs can seriously harm them. But, warning a 16-year-old about the dangers of having a heart attack, developing liver problems or other maladies when he turns 35 or 40 will probably fall on deaf ears.

That’s why I believe that *coaches are the most important first targets* for this education, because they are the key to solving this problem. Why? Because they are the ones positioned to reward kids that take steroids—they make the decision as to who makes the team or not, who makes the starting line up or sits the bench.

We must take active steps to make coaches more responsible & accountable for supervising the use of steroids by their teams. I feel strongly that we need coaches that are:

- (A) Formally trained to recognize the symptoms of steroid abuse,
- (B) Trained to know what to do about it when they find it, and
- (C) Held accountable for insuring that their teams are steroid-free.

Furthermore, I feel that our coaches need to be certified—to have to pass a minimum threshold of training and testing before they are turned loose to supervise our kids. Today’s group of HS coaches receive NO TRAINING on the subject of steroids and are (in my experience) disavowing any responsibility for challenging their athletes on this problem. As a matter of policy, our coaches must talk openly and actively with their teams about this topic. And, we must insist that they enforce a ZERO TOLERANCE policy against steroid abuse—get caught using steroids and the student is either put into a formal rehabilitation program or kicked off the team!

Yes Senators, a coach may lose his #1 pitcher, star quarterback, or runner for the season, but I am convinced that this drug abuse won’t stop until our athletes are convinced that there are *real* consequences to this drug abuse. With the strong peer pressure to use steroids combined with the “wonderful” example being set by our

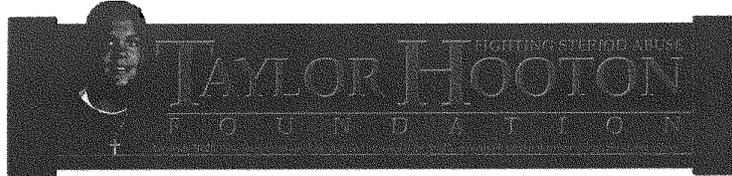
professional athletes, I am certain that a slap on the wrist just isn't enough to curb this rampant abuse.

To help fill this education void, we have just formed a non-profit foundation—The Taylor Hooton Foundation for Fighting Steroid Abuse. As far as we know, we are the only private group in existence that is organizing to help fight this battle. We have opened a website, and have begun a fund raising campaign targeted at raising \$5 million this year for this national education effort. We would like to find ways to work with you to make our Foundation part of your effort moving forward.

There are other things that you can do such as strengthening the penalties for distribution and possession of this drug, and finding ways to stop the flow of this drug across our borders. But we can talk about those ideas and others in the Q&A period.

Creative legislation is needed NOW. Doing nothing will insure that steroid use will grow—the demand for steroids continues to grow and has not been deterred by recent events. Coaches continue to look the other way for whatever reason, and parents continue to push their kids to get that scholarship. Knowingly or unknowingly, our kids continue to be pressured into using steroids.

Let me close by telling you how much I appreciate your taking the time to listen to this message today. And, my sincere prayer is that some of the knowledge that I shared with you in this message will help you to better understand how you can help some boys or girls avoid the terrible fate that was Taylor's.



The Taylor Hooton Foundation

www.taylorhooton.org

Primary Goal: Educate the Public (Coaches, parents, and students) about the dangers of steroid abuse.

Primary Education Target: High School Coaches

Objective: We need coaches that are –

- a) Trained to recognize steroid abuse
- b) Trained to know what to do about it
- c) Held accountable for insuring that their teams are steroid-free!
- d) Certified to work with our kids

Genesis 50:20 "You intended to harm me, but God intended it for good to accomplish what is now being done, the saving of lives."

Chairman GRASSLEY. Thank you, Mr. Hooten.
Now, Dr. Catlin.

STATEMENT OF DON H. CATLIN, M.D., PROFESSOR OF MOLECULAR AND MEDICAL PHARMACOLOGY, UCLA OLYMPIC ANALYTICAL LABORATORY

Dr. CATLIN. Good morning, Senators Grassley and Biden, ladies and gentlemen. It is a pleasure and an honor to speak to you today.

Twenty-two years ago, I was pursuing a classical career as an academic physician at UCLA, but my world abruptly changed when a member of the IOC—the International Olympic Committee—came to visit and asked if I would develop a laboratory that could test athletes for competing in the 1984 Olympic Games. He showed me a list of the drugs that were forbidden, and although I was a practicing physician at the time, many, many of these I had never heard of. I simply did not know what they were. I was really quite naive. I did not understand why a young person at the top of their athletic career would take a drug. It made no sense. But when my Olympic visitor came back a few weeks later, I had said, no, we cannot do this. This is not something I know how to do. I am not a chemist.

But I went out to read about it. I went to the medical library. One article that I found explained that anabolic steroids do not work. All you have to do, it was explained to me, is educate athletes and the problem will go away.

[Pause to fix microphone.]

Dr. CATLIN. So all you have to do is educate athletes, said this expert, and the problem would go away. Now, this was strange. Why was the IOC coming to Los Angeles to want to develop a lab if the drugs do not work?

Well, so I went to the local gym, and that is where I learned real quickly what steroids can do for you. They are extraordinarily potent drugs. They profoundly alter your performance. They can make you jump higher, swim faster, climb faster, run faster. Big muscles are not supposed to be fast muscles. If your high school coach says, as we have heard today, “Put on 20 pounds over the summer, and you will start in the fall,” there is only one way to do that, and that is anabolic steroids.

They can make you look buff, have better-defined muscles, a look that is considered desirable, particularly in the adolescent. Interestingly, the buff look is sought after by both boys and girls. Girls do not want big, huge muscles. They are more desirous of better definition of their muscles and one effect of the steroids to decrease body fat.

Once I realized steroids were so powerful, it was immediately clear why sports had to do something about it. A playing field is not level when there are two sports: one with steroids and one without steroids. And those sports where steroids affect the outcome, there are winners and there are losers, and if you are not taking the steroids, you cannot win.

I brought along a few slides to illustrate some of my points. In the very first slide you see Ben Johnson before steroids. This is the year 1988. In the second slide, this is Ben Johnson after steroids, taken a few months or years later. It is the same athlete before and after. That big thing on his shoulder that looks like a melon is his deltoid muscle. There is no question that anabolic steroids

work. This is the kind of effect they have. You do not need to do a lot of research to show this.

This is Ben Johnson on his way to defeat Carl Lewis in the 100-meter dash, and later that day Ben Johnson's urine was found to contain stanozolol, an anabolic steroid. The Olympics literally stood still for a day while the sport community came to grips with its first major drug scandal. Before that, we knew that weight lifters used steroids, but weight lifting was not terribly telegenic, and I do not think the world cared, but in 1988 they started sitting up and paying attention.

Now, how far have we come since then? This is something I think we have to focus on. There is a cost, and I would like to address the cost. The next slide is a schematic that shows where all of the effects of the anabolic steroids are. They affect really every organ of the body. There is not a single organ—the skin, the brain, the blood, the heart—that is not affected. Many of the effects are internal or invisible, but if you study the blood, there are changes. There are changes in blood cholesterol. The good cholesterol goes way down, and the bad cholesterol goes way up. This may well be setting the stage for cardiovascular disease in the future.

The next slide shows gynecomastia. This is quite common. These are breast tissue. That is a male, and you can also see, if you look carefully, that there is lots of acne—zits. And what is happening here is that the male body is responding to the anabolic steroids and turning more like a female and the female is turning more like a male. That is what is going on internally.

Now, there are ways to deal with this. This gynecomastia will go away if you stop the steroids and wait quite a while, 6 months or a year. Oftentimes they will have them surgically removed. Strange as it may seem, the steroids make men more like women and the women more like men. For women, their breasts shrink, their menstrual periods become irregular, and their clitoris enlarges. For men, their breasts enlarge, their testicles shrink, and they become eventually impotent.

Inside the body there are still more profound changes in all of the hormones. The glands that normally control manliness wither and stop producing. The body lives off of the anabolic steroids that they are taking. When they are finally discontinued, it takes months for these effects to reverse. You cannot just turn the switch and get back to normal. Some of the effects may well be permanent. And one of the worst things that can happen to an adolescent who takes anabolic steroids is they stunt their growth. They stop the long bones from growing, and you are permanently shorter than your God-given height would have been. Anabolic steroids should never be taken by an adolescent.

I was very interested to know more about the effects on women, so I opened a little clinic at UCLA to see if I could attract women who were taking anabolic steroids. There is nothing written about them. Nobody came for quite a while. Finally, a couple started to come in, and they had two main complaints: What could they do about their low voice? Several of their mothers said, "Why do you still have a cold?" and they had no answer for them. The second thing they were concerned about was the effect on their periods and whether they were ever going to be able to have children. The

main issue with the amenorrhea—that is the loss of periods—is the fear that they will not have children. In fact, if they do become pregnant and they have been taking anabolic steroids, they can have some terrible side effects on the fetus, such as the fetus growing a penis-like appendage.

Many of my patients wanted to discontinue steroids, but they were critical to their work as bodybuilders, and most of them made the choice to continue. I was able to successfully get a few off, but only by really dint of hard work and explaining how these side effects were going to catch them one of these days, and it was time to stop, and I would actually work with them.

One of the most common effects in women is virilization. They begin to look like men. A little bit is okay for the young lady of today because they want the tone-up, the feeling, they want a little bit of definition in the muscles. But what they do not want is this—they do not want too much hair on the face or the back or other places. Another thing that steroids do to the skin is make it oily, and plug the sebaceous glands, and you can have terrible types of acne.

We have seen some of this in the old days. This slide is of an East German female on the lower left corner while taking anabolic steroids. We all know that now. There were little blue pills at the breakfast table, and if you did not take them you were off the team. On the right, you see the same lady with all of her medals that she collected in Olympic sports, but now she has been off steroids for some time. They really do work. They really do enhance performance, and those effects, as you can see here, it looks like she has shifted there, getting better.

A rare, but distinctly unattractive effect in males and females, is keloid tissue. This is keloid tissue here in a male. And that is areas of skin that are thin and allow the blood vessels to show through. These lesions will gradually regress, but it takes a long time.

For the psychiatric and behavioral changes, which we have heard about, we have no slides. I cannot find a slide that will change things, but I will tell you a story and I have heard similar stories before. Some years ago, a law-abiding citizen, a productive citizen who never took anabolic steroids, stopped at a convenience store on his way to work, and he bought a soda. Now, he had never taken steroids before, but about a month before this trip to the store to get the soda, he started Dianabol. He asked for a soda, and the clerk gave him change, and he thought that she was a bit surly. That night he obsessed about the incident. He got out a long hunting knife, and he sharpened it.

The next day he went back to the store, and he grabbed the clerk and put her in his car and drove off down the road. They had to slow for some construction. She jumped out and was severely injured—a paraplegic. He went home and sat and waited for the police, and when they arrived he said, “I do not know what it is. It must have been the steroids.”

They affected and altered his brain. Why him? I do not know. Not everybody is affected this way. I cannot prove beyond a shadow of a doubt that the anabolic steroids did this, but I am sure in my heart we cannot do the kinds of studies that you need to do to prove this. They would not be considered ethical. But I have heard

this kind of story, where you take a normal person, absolutely healthy, and their behavior changes abruptly and starkly, and they do really weird things and sometimes heinous things. It does not happen to everybody, fortunately.

“Roid rage,” on the other hand, is another kind of change, and that is much more common. This is used to describe men that become hyperaggressive, combative and argumentative on steroids. There are various grades of this. Medical patients who take anabolic steroids for conventional illness describe some of these things, but not so much. Solid statistics are not available. We cannot say how many people get 10 degrees of steroid rage, but we know it is happening.

Athletes and adolescents are not stupid. They will not take a drug if they know there is going to be a side effect instantly within days. What they have trouble doing is evaluating the long-term effects and the risks and benefits. They do not believe that they are—they think they are invincible or indestructible or it will not happen to me. Some of the effects that I am showing you, and will show you, are things that just occur out of the blue. We do not know why they happen, although they are the most serious side effects like this next one.

This slide shows a liver tumor. The whole left side of the liver is replaced by a tumor. This is associated with anabolic steroids. It is rare, but if you happen to be the person who gets that tumor, that means that essentially you may well die. They can trigger cancer—not very often.

The next slide is a very ugly-looking tumor, also the same sort of thing. We cannot look, as physicians, at somebody and say, “You are going to get a tumor.” We do not know who is going to get a tumor, who is going to get these terribly adverse side effects.

This slide shows a side effect called peliosis. You see the liver on the right, and it is kind of knobby, and it looks like it has got a bunch of blood-like things on the surface. And you see a microscopic section of it on the left. Those are blood-like lakes. The liver is turning into a lake of blood vessels. And this tumor, if it bleeds, is essentially malignant. You bleed into your abdomen, and you can die. It is a terrible side effect. Again, it is not terribly common, but if you are the one that gets it, it is trouble.

Can you figure out what this slide shows? This is a tendon. This is a surgical view of a knee, and the knee has been opened by the surgeon, and there is a tendon sitting out there. And basically what has happened is that the strength and power of the muscles of the leg have overpowered the tendons and just snapped them. Now, the human body is not built to withstand the kinds of forces that muscles can put it on when those muscles are under the influence of anabolic steroids. So you have to call a surgeon to come in and try to get to that tendon and fix it, get it back to where it belongs.

The person in this slide is well-known, but not with us any more. This is Lyle Alzado on the cover of *Sports Illustrated* many years ago. He died of an unusual type of cancer. In his mind, the tumor was due to steroids. Whether or not it was, we will never know. Some experts doubt it, but it is important that Lyle Alzado believed they were due to steroids. He was a huge, powerful man who had

a huge influence on the National Football League, and I believe that his passing did more to curtail the use of steroids because of his incredible role model place in society than anything else at that time and era. We need role models now. Certainly, not like this, but how can we find role models who can stand up and say, "I do not take steroids. There is another way to do it."

Why do adolescents take steroids? Ten or more years ago, they all were taking them to improve their performance in sports. Now, things are different. There is a trend toward using anabolic steroids simply to get buff, to tone up, to get muscles that are very easily seen. The athletes want to get bigger and stronger, but not so much the nonathletes and the females. They just want to be buff. They want to look better. They want to tone up. They want muscles that are distinct. All surveys today and epidemiology studies are showing a steady increase in this usage among adolescents.

Typically, they begin with over-the-counter steroids readily available. "How can there be anything about an over-the-counter steroid which is dangerous?" they ask. The next thing they do is go on to stacking, taking two at a time. The more determined ones, the ones who now want to go into sport, will take injectable steroids, and then they are off on a long and complicated course.

As we have heard earlier today, there seems to be really no way to stop the availability of anabolic steroids. They are available on the web. Is supply limiting? Probably not. Controlled steroids are readily available around gyms, the web, from Mexico. Worse yet, the local health food stores, as we have heard, have a variety of them. The DSHEA Act actually helped make steroids more available because all you had to do was to show that the steroids occurred naturally, and they could be used.

This slide provides a short list—a very short list—of some of the steroids that are available over-the-counter. Androstenedione is perhaps coming off the list. These are everyday steroids that are powerful. And I show you one little chemistry slide because I want you to see what testosterone and andro look like side-by-side. You could stare at it for 5 minutes, and maybe you could see a difference. That is androstenedione or "andro" on the top, and that is testosterone on the bottom.

Now, we all know that testosterone is the male hormone that is what makes men, men. And andro is, if you look in the upper right-hand corner, you will see a tiny, little difference. I cannot point to it, but one is an OH group on testosterone and andro is simply an O group. That subtle, small change is what makes androstenedione and you just put it in the body, and it changes instantly to testosterone. Andro is sold over-the-counter; testosterone is a normal, natural steroid.

Lastly, I want to mention THG, which has become famous in the last year. It is a designer steroid. Are there more out there? Probably. Almost certainly. It shows, in one sense, how far we have come; what people will do to try to take anabolic steroids and others. On the other hand, it shows how far we have come to be able to detect it.

Ladies and gentlemen, the problem that we are talking about will not go away without serious commitment and attention. I commend your efforts in the current bill, and I support the Act, and

I urge you to deal in every way you can imagine with education, testing and try to return sport to its rightful place and to keep adolescents away from these things.

Thank you.

[The prepared statement of Dr. Catlin follows:]

STATEMENT OF DR. DON H. CATLIN, M.D., PROFESSOR OF MOLECULAR AND MEDICAL PHARMACOLOGY, UCLA OLYMPIC ANALYTICAL LABORATORY

Good morning Senator Grassley, members of the Drug Caucus, ladies and gentlemen:

It is a pleasure and honor to speak to you today. Twenty years ago I was pursuing a classical career as an academic physician at UCLA. My world abruptly changed when a member of the International Olympic Committee (IOC) came to visit and asked if I would develop a laboratory that could test the urine of athletes competing in the 1984 Olympic Games. He showed me a list of the drugs that were forbidden, and although I was a practicing physician, I barely recognized many of the drugs. Besides I was a physician not a chemist—so I turned him down. I was so naive that I could not understand why a young athlete, at the pinnacle of their sport career, would take a drug. Athletes are young and healthy. It made no sense. But he came back a few weeks later and by then I had learned a few things.

I went to the medical library and looked for articles about drugs and sport, but I could not find much. I did find one article by an influential editor of a Sportsmedicine Journal. He explained that anabolic steroids do not work: “all you have to do is educate” the athletes and the problem will go away. This was strange—why was I asked to develop a lab to test Olympic athletes for steroids if they don’t work.

My next stop was a local gym where I very quickly learned what anabolic steroids can do for you: They are extremely potent hormones that can profoundly alter your athletic performance—and cause many nasty side effects. They can make you run faster, jump higher, and lift more—things that matter if you are an Olympic athlete. If your high school football coach says “put on twenty pounds over the summer and you will start in the fall” there is only one way to do it—anabolic steroids!

Steroids can also make you look “buff”—have better defined muscles—a look that is considered desirable, particularly in the adolescent. Interestingly, the buff look is sought after by both boys and girls. The girls do not want the huge muscles, they are more desirous of better “definition” of their muscles, less body fat, and better muscle tone.

Once I realized that anabolic steroids were so powerful, it was immediately clear that they should be forbidden in sport. Essentially there are two sports: one with and one without steroids. In many sports there is no hope for the “level playing field” if steroids are around. The issue was and still is how to control or curtail the problem. For the last twenty or so years I have sought to better define the issue and perhaps to make it better—in short, I devoted my professional life to the problem of drugs and sport. Now the issue is well beyond sport, the abuse of anabolic steroids has become a serious and growing concern for all.

I brought along a few slides to illustrate some of my points. In the first [Ben Johnson before 1988 Olympics] you see an athlete walking. In the second slide [pineapple] taken a few years later the same athlete is seen leaving the starting line at the 1988 Olympic Games in Seoul. It was Ben Johnson leaving the starting blocks on his way to defeat Carl Lewis in the 100 meter dash. Later that day his urine was found to contain stanozolol, an anabolic steroid. The Olympics literally stood still for a day while the world came to grips with the its first major sport drug scandal. Before that, we sort of knew that weightlifters used anabolic steroids, but the public was not so interested in weightlifting and it is not a particularly telegenic sport. But this was Track and Field, the 100 meter dash, Carl Lewis versus Ben Johnson—a truly premier event. The enormous pineapple [slide 2] sitting on his shoulder—that is his deltoid muscle. This photo removes doubts about whether or not steroids work. Of course they do! They work in men and still more in women.

But there is a cost.

The next slide [schematic of a person with arrows pointing to body organs] shows that anabolic steroids produce changes in virtually all organ systems: liver, heart, skin, brain, and more. Many of the effects are internal metabolic changes that cannot be directly observed. But if you study the blood there are changes in blood cholesterol and many other hormones that circulate [point]. The level of HDL-cholesterol level (the good cholesterol) in blood goes down and the LDL-cholesterol goes up, and the ratio of bad to good cholesterol goes way up. This ratio is a marker for

cardiovascular events such as myocardial infarctions, blood clotting, and strokes. We know these serious adverse effects are associated with AAS, but they occur relatively infrequently and we have no way to predict who will get them. The elevated bad to good cholesterol ratio makes us concerned that there will be more cardiovascular side effects months and years after the steroids are discontinued.

The next slide [gynecomastia] is one of the most common side effects of AAS in males. Somehow the balance of male and female hormones is changed by AAS such that men develop female-like breasts. This effect will reverse if the steroids are discontinued, but often it takes months or years of being steroid free. Sometime the males resort to surgery to “get back to normal.” The next slide [microscope view of sebaceous glands] shows a microscopic view of acne (zits) which are very common among AAS users. The drugs make the sebaceous glands, shown here on the right, very big and juicy. The gland on the left is normal. If the sebum clogs the channel from the subcutaneous tissue to the skin, inflammation breaks out and one gets ugly inflammatory acne.

Strange as it may seem, AAS in some ways make men more like women and women more like men. For women, their breasts shrink, their menstrual periods become irregular, and their clitoris enlarges. For the men, their breasts enlarge, their testicles shrink, sperm production declines then stops altogether and they are sterile.

Inside their body there are profound changes in many hormones that are made in the pituitary gland. In effect the pituitary-testicular axis, the glands that normally control virility and manhood in the male, wither and stop producing. The body “lives off the supply of foreign steroids.” When the AAS are finally discontinued, it takes a long time, months and years, for the effect to reverse. Some of the effect may be permanent.

In order to learn more about the adverse effects in women, a “closet” topic about which virtually nothing is published, I started a clinic for women steroid users. At first nobody came. Finally a few from the bodybuilding culture came to see me. They had two main complaints: what can I do about my low voice and when will my periods come back. The low voice is due to the effect of AAS on the larynx. It is a disaster for a female. The ladies have trouble explaining to their moms that the low voice is due to a cold—when it never goes away. The main issue with the amenorrhea is the fear that they will not be able to have children. As far as we know the AAS will not effect pregnancy but there are no studies on this. None of them wanted to discontinue steroids as they were critical to their work as bodybuilders, but all wanted their voice back and reassurance that they will be able to have children when they do quit. Several had high blood pressure and I used this finding as a way to keep them coming back to the clinic. Eventually I was able to show them their abnormal blood finding and this interested them. A few actually did quit AAS. Although it is written that steroids produce drug dependence like heroin and cocaine, I did not observe any evidence of dependence.

Of course the most common and feared effect in women is virilization—they become more masculinized. A little bit is OK because it tones up the muscle, but when the hair growth on the face gets out of control as shown in the next slide [female with hair growth on face] virilization has been established and is definitely not wanted. Other findings that go along with virilization are more hair on the back, chest, and under the arms; less hair on the head (temporal balding); oily skin, and acne. These side effects also happen to men but they are less apparent and somewhat moot. Adolescents certainly do not want acne (pimples and zits). By explaining that this is a common side effect of AAS I have had some success in persuading some adolescents not to take AAS.

The next slide shows a former East German well-known swimmer. In the inset [slide of East German female] of the slide is the before photo showing a markedly virilized woman with massive arms and shoulders and lots of underarm hair. A few years later in the right side of the photo, she is shown off all steroids and with her Olympic Gold medals around her neck. During the 1970s and early 1980s, the East German teams were invincible, largely due to steroids. The athletes had no choice, there were little blue pills at the breakfast table and you took them or you were off the team. The accounts of the effects on the women, the terrible side effects, and how the athletes were coerced are quite horrifying.

A rare but distinctly unattractive effect in males or females is linear keloids [slide with keloids]. Keloids are areas of the skin that are thin thus allowing the blood vessels that are normally not visible to show through. These lesions will gradually regress if the steroids are discontinued.

Psychiatric or behavioral changes do not lend themselves to photos, so I will tell a story: Some years ago a man on his way to work stopped at a convenience store on a country road, bought a soda, and asked for change to use the phone. He

thought the clerk was a bit surly. That night he obsessed about the incident, dug out his old hunting knife and sharpened it. The next day he went back to the store with the knife and abducted the clerk. He had to slow for construction, she jumped out of the car and was severely injured. He went home and waited for the police. When they arrived he said "I don't know what happened, it must have been the steroids." Now, I cannot prove beyond a shadow of a doubt, according to placebo-controlled, accepted medical research protocols, that anabolic steroids altered this man's psyche such that he could do this. But I am convinced that the anabolic steroids were instrumental. Before the event he was a law abiding productive citizen. One cannot do research to see if such things happen—it is not ethical and would not be approved by ethics committees. But I have read and studied other dramatic cases that convince me that AAS severely alter the mental status and behavior of some people. I know of no way to predict who will have such remarkable behavioral effects, they are not very common, but they do happen.

On the other hand "roid rage" seems to be quite common. This term is used to describe men that become hyperaggressive, combative, and argumentative on steroids. There are many grades of roid range. Whether or not the bizarre event that I just described is an advanced form of roid range or something entirely different remains to be elucidated.

Medical patients who take anabolic steroids in conventional doses for an illness generally do not experience much behavioral change, although a few cases of profound psychopathy are described. Some behavioral effects are much more common, but it is difficult to know just how common they are. Solid statistics are just not available in this field. Some of the most commonly described behavioral effects of AAS are mania, hypomania, and depression—such as you heard described by Mr. X. Sadly, suicide has been described as a side effect of AAS.

Athletes and adolescents are not stupid. They will not take a drug if the risk of a serious adverse side effect is high, however they do greatly underestimate the risks. They simply do not have the background or training to evaluate the risks. They tend to believe, as many young people do, that they are invincible and indestructible, or it "won't happen to me." They are not good at assessing the risks and benefits, largely because their information comes from dubious sources. Indeed the most serious adverse side effects are rare, the problem is that if you get one of them it is generally too late. They are invincible—and so they start.

Tumors, neoplasia, benign and malignant cancers have all been associated with AAS. The ugly mass filling the left side of this patient's liver [slide of liver tumor] is one example of a tumor associated with AAS. And the next tumor [very ugly tumor] is even more dramatic and frightening. These lesions do occur, they are not common, but they are dramatic—particularly to affected persons.

The next slide is peliosis hepatitis [slide of peliosis], a rare and dangerous tumor of the liver that is associated with AAS. It is not dangerous because it is malignant, it is dangerous because the tumor is very vascular and tends to bleed. The liver is gradually replaced by these lake-like lesions. If they start to bleed, they are very difficult to control. The patient bleeds into their abdomen. This complication, while fortunately rare, is highly dangerous: patients can bleed to death internally.

Can you figure out what this remarkable slide is showing? It is a surgical scene. The surgeon has opened up the knee joint. It is a frontal view, what you would see if your neighbor's knee were being operated on. That little strap-like thing coming out of the wound is a tendon [slide of tendon]. The tendon belongs to a very strong athlete. So strong that he snapped the tendon when he was doing a squat. The steroids are so powerful that they can lead to ruptures like this if the muscles become too strong for the rest of the body. Also the steroids may weaken tendons.

This person is well-known and not with us any more [slide of Lyle]. This is Lyle Alzado on the cover of *Sports Illustrated* many years ago. He died of an unusual type of cancer. In his mind the tumor was due to AAS. Whether or not it was, we will never know, and some experts doubt, but it was important that Lyle believed his tumor was due to AAS. He was a huge powerful man, the terror of the NFL, with a profound influence on professional football players. His passing, I believe, did more to curtail AAS use among athletes than any other single event.

Why do adolescents take steroids? Ten and more years ago the surveys showed that adolescents only used anabolic steroids to improve their sport performance. Further they were virtually all males. Now there is a distinct trend toward using anabolic steroids to be more buff, to tone-up. The athletes still wish to get bigger and stronger but now so do the non-athletes and the females. They want muscles that are distinct and "cut"—like rabbits running under a rug. All surveys and epidemiology studies are showing a substantial increase in usage among adolescents.

Typically, they begin with oral doses of an OTC steroid. How can there be anything dangerous about an OTC drug, they ask? Stacking describes adding another

steroid. The more determined users move on to injectable steroids or take multiple types of steroids (stacking). If they are competing athletes that are subject to testing, such as the NCAA athlete, they learn various ways to avoid getting caught. Generally, the AAS user is not very selective about where they will get their steroids. They will take steroids from a variety of sources: friends, contacts, websites, doctors and pharmacies that deal in steroids, and other clandestine sources. Veterinarian steroids are particularly popular these days.

Switching gears a little bit as I approach the conclusion, please focus for a moment on OTC steroids.

Is supply limiting? I do not believe that supply is a problem. AAS are readily available around most gyms, on the web, and across the border. The local health food stores carry an incredible array of over-the-counter steroids—steroids that are presently legal and, in fact, enabled by the DSHEA Act. This 1994 Act was a boon to the supplement industry because it legitimized many OTC steroids. As long as the manufacturer could show that the steroid occurred naturally, it was possible to package it and sell it as a OTC supplement. Further, the health risks of anabolic steroids are the same for the OTC steroids as they are for the prescriptions ones.

Here is a short list [slide of OTC steroid names] of steroids that are available OTC. (Dhc reads them out.) And here is the chemical structure of testosterone on the left and andro or androstenedione on the right. [Slide showing chemical structure of andro and T]. Can you see the difference? Well, it is not easy for the layperson, but if you look carefully right here (Dhc points) you can see a subtle difference in the structures, one is a prohibited AAS that can lead to jail time and the other is Andro or androstenedione. Testosterone is a prescription drug and Andro is sold OTC. Ladies and gentlemen, Andro and other steroids should not be sold over-the-counter.

One cannot reasonably expect to get them out of sport if they are available for the asking in the shops, "health" food stores, and supermarkets.

Last, this presentation would not be complete without mentioning designer steroids [show slide on THG]. On one hand, it shows just how desperate some people are to win an Olympic medal. On the other hand, it also shows just how far we have come in detecting them. Ladies and gentlemen, the problem will not go away without serious attention and commitment. Designer steroids will soon affect your local schools and teams. It is time to act now while the nation's attention is focused on the problem. It will take human and instrumental resources and a dedication to return pee-wee baseball and Olympic sports to their rightful and original condition: drug free.

Ladies and gentlemen, thank you for your careful attention to this critical issue that may affect your children, and certainly plays havoc with sport.



POSITION STATEMENT

Abuse of Anabolic Steroids and Their Precursors by Adolescent Athletes

As the only youth sports organization with a Federal Charter of Incorporation, Little League Baseball, Incorporated, is obliged by its charter to advance the health and welfare of children.

Since it was founded in 1939, Little League has provided wholesome and healthy athletic competition to tens of millions of American children, not with the goal of creating great athletes, but helping to create good citizens. Through the sports of baseball and softball, Little League teaches that teamwork, sportsmanship, and fair play are values to be carried forward to adulthood.

Each of more than 7,000 local Little League programs worldwide plays under the same rules and regulations -- one of the hallmarks of Little League Baseball and Softball. The "even playing field" is and always has been Little League's goal.

Thus, the use of performance-enhancing substances is completely contrary to the mission and ethics of Little League.

The dangers inherent in the use of anabolic steroids are well documented. They may lead to further drug abuse, serious health problems, and death.

Little League enthusiastically supports legislation that would limit the availability of anabolic steroids and their precursors to adolescent athletes. Further, Little League offers its full support to any initiative that,

1. may reduce the widespread use of such substances, and,
2. increases awareness of the dangers involved in their use by adolescent athletes.

STEPHEN D. KEENER
President and Chief Executive Officer

July 2004



The American College of Sports Medicine (ACSM) is the world's largest sports medicine and exercise science organization and is widely regarded as the world leader in the field. More than 20,000 members in some 80 countries worldwide advance and integrate scientific research to provide educational and practical applications of exercise science and sports medicine. ACSM endeavors to increase sports participation as well as to ensure sports safety, and to promote physical activity as an important strategy to address the global pandemic of rising rates of obesity and related chronic diseases attributable to inactive lifestyles.

ACSM has a decades-long history of strong opposition to the use of steroids and other performance enhancing drugs in sports or in recreational settings. Over the years, ACSM has published many authoritative scientific statements on this topic. These statements include the official ACSM Position Stand: *The Use of Anabolic-Androgenic Steroids in Sports*. The main points of ACSM's official position on the use of anabolic steroids are summarized as follows:

1. The use of steroids by athletes is contrary to the rules and ethical principles of athletic competition as set forth by many sports governing bodies. The American College of Sports Medicine supports these ethical principles and deplores the use of anabolic-androgenic steroids by athletes.
2. Anabolic-androgenic steroids in the presence of an adequate diet can contribute to increases in body weight and lean body mass.
3. The gains in muscular strength achieved through steroid use at doses beyond those utilized in clinical medicine improve performance and seem to increase aerobic power or capacity for muscular exercise, giving an unfair advantage to those who are willing to risk the potential side effects to achieve gains in athletic performance.
4. Steroids have been associated with adverse effects on the liver, cardiovascular system, reproductive system, and psychological status in therapeutic trials and in limited research on athletes.

ACSM recognizes that the use of drugs to enhance strength and endurance has been observed for thousands of years. Today, many individuals, including adolescents, continue to employ a variety of drugs, such as anabolic steroids, to improve their athletic performance and appearance. The appetite for these drugs has been created

predominantly by our societal fixations on winning and physical appearance. There are physiological concerns associated with steroid use, however, including drug dependence and increased aggression.

Perhaps most alarming are the severe health risks associated with steroid use and abuse. These have been well-documented in the medical literature and are a function of the specific steroid used, the dose and duration of use, as well as the route of administration. Anabolic steroid use has been implicated in early heart disease, including sudden death, changes in blood cholesterol profile (increased LDL, lower HDL) resulting in increased risk of coronary artery disease, an increase in tendon injuries, liver tumors, testicular atrophy, gynecomastia (abnormal enlargement of breasts in males), male pattern baldness, severe acne, premature closure of growth plates in adolescents, emotional disturbances, and other significant health risks.

Some of the adverse effects are a function of the user's age and sex. Particularly those adverse effects affecting secondary sex characteristics are quite predictable. Other somatic (unrelated to secondary sex characteristics) adverse effects related to steroid use and abuse, such as their effects on the cardiovascular system, blood clotting, liver function, and cholesterol metabolism, are less predictable and may occur from months to years subsequent to their use. The psychiatric effects of steroids are well known and in the extreme have been referred to as "Roid Rage." Anabolic steroid abuse has been associated with a dependency syndrome and suicide has been noted upon cessation of use.

More recently, shameful attempts have been made to develop and mask "designer steroids," meaning substances that are undetectable through the use of existing testing procedures. ACSM also considers these chemicals, such as the recently identified Tetrahydrogestrinone (THG) as serious threats to the health and safety of athletes, as well as detriments to the principle of fair play in sports. Any effort to veil or disguise steroid use in sports through stealth, designer, or precursor means, puts elite, amateur, and even recreational athletes, at risk. The health risks of designer steroids compared to or beyond symptoms of anabolic steroid use are not currently known.

Anabolic steroids are synthetic versions of the primary male sex hormone, testosterone. Testosterone, produced primarily by the testes, is responsible for the masculinization and muscle growth during male adolescence. Anabolic steroids are administered primarily in oral and injectable forms, and needle sharing has been reported, especially among adolescents. The latter method of administration, of course, means the risk of transmission of a variety of life-threatening, blood-borne diseases is an additional serious concern. These drugs are usually obtained from black market sources, which often include distributors of other illegal drugs. Beyond the dangers associated with anabolic steroid use, the purity and quality control of 'black market' sources may be an additional concern.

Individuals who use anabolic steroids, particularly those experienced in weight training, will experience increases in strength and muscle significantly beyond those observed from training alone. Many adolescents who use anabolic steroids do not participate in school-sponsored sports, but instead are using the drug to improve appearance. Adolescent steroid users are considered particularly susceptible to potentially serious health problems during the physically and emotionally vulnerable period when their own hormonal cycles are changing.

In females, anabolic steroids have been associated with a number of adverse effects, some of which appear to be permanent even when drug use is stopped. These include menstrual abnormalities, deepening of voice, shrinkage of breasts, male-pattern baldness, and increases in sex drive, acne, body hair, and clitoris size. Younger steroid users, both male and female, are at risk of permanently closing their growth plates and halting their linear growth, which results in shorter stature than nature had intended.

Anabolic steroid use is not just confined to collegiate, professional and Olympic athletes. Use among students in ninth to 12th grades is increasing at an alarming rate, indicating the critical need for action and intervention by policymakers. According to trend data tracked by the Youth Risk and Behavior Surveillance System at the Centers for Disease Control and Prevention, in just a four year time span, from 1999 to 2003, the percentage of students who reported that they had taken steroid pills or shots without a doctor's prescription one or more times during their life jumped 65 percent from 3.7 percent to 6.1 percent. If this trend continues, more than one out of every ten American students will have used illegal steroids at least once, by the turn of the next decade. The rise in use among females is even more alarming. Just four years ago, 2.2 percent of females in the survey reported use. By 2003, it was 5.3 percent – a 140 percent increase.

Also of concern to ACSM is the availability and use of anabolic steroid precursors. Thousands of over-the-counter products contain steroid precursors that metabolize in the body into anabolic steroids. In many cases, these are being sold as dietary supplements that provide "safe" steroid equivalents. Because these products are metabolized by the body into anabolic steroids, the side-effects are thought to be the same as the side-effects resulting from steroid use. ACSM recently commended the United States House of Representatives for passing the Anabolic Steroid Control Act of 2004 (HR 3866) and urged members of the Senate to promptly support and adopt similar legislation. HR 3866 would prohibit over-the-counter sales of anabolic steroid precursors by requiring a prescription from a doctor. Final passage would significantly limit access to substances such as androstenedione, commonly known as "andro," and its derivatives. The legislation effectively reclassifies these products as controlled substances. They are currently considered supplements. Under federal law, controlled substances are the most highly regulated drugs in the United States.

The American College of Sports Medicine strongly urges lawmakers to take immediate, definitive, and lasting action to prevent the use of anabolic steroids and steroid precursors; with appropriate penalties for those involved in the medically inappropriate production, prescription, distribution and use of these agents. We thank you for the opportunity to contribute to this discussion.

Ephedra, Creatine & Related Dietary Supplements

The explosion of dietary supplement products marketed within the past few years has created much confusion and controversy among competitive athletes. Despite recent safety concerns, ephedra alkaloids and other stimulants remain popular components of many nutritional supplements.

1. Marketing:

Products marketed as "natural", "legal", and able to purchase "over the counter" are not necessarily safe and can contain NCAA banned substances. For example, androstenedione, DHEA, and ephedrine ("ma huang") are found in many "nutritional" supplements, and all are banned by the NCAA.

2. No Regulations:

The supplement industry is not well regulated, with products often not containing the advertised ingredients, or sometimes containing unknown impurities (which may not be safe or may be a NCAA banned substance).

3. Scientific Evidence:

Most supplements have little reputable data to support their claims of enhancing performance. For creatine, the benefits seem to be limited to high intensity activities of short duration with no proven benefit for aerobic activity. Likewise, evidence to support ephedra use to help athletic performance is insufficient.

4. Safety Concerns:

Androstenedione, DHEA, and norandrostenedione are all precursors to anabolic steroids, and can cause the many well-known health problems that arise from steroid use. Creatine has the potential to increase the risk of muscle cramping, muscle injury (tears such as "pulled hamstrings"), and heat-related illness/dehydration (heat exhaustion or heat stroke). Ephedra use has been associated with heat intolerance, heart palpitations, stress, anxiety, dry mouth, tremors, hypertension, and catastrophic events (stroke, heart attacks and seizures). No studies have proven long-term safety.

5. Loss of Eligibility:

Although the topic of dietary supplements can be confusing, the penalty for testing positive for an NCAA banned substance is very clear: a one-year suspension (even if you claim no knowledge of ingesting the banned substance).

4. Questions:

If an athlete has questions about supplement use or is considering taking any type of dietary supplement, it is recommended checking with the staff nutritionist, a team physician, or the athletic trainer for his or her sport prior to starting any supplement use.

Conclusion: The athletic medicine staff at the University of Michigan continues to strongly discourage the use of creatine and other "performance enhancing" dietary supplements as an adjunct to a student athlete's training regimen. Good nutrition, hydration and training programs are the most important components to helping athletes reach their goals.

References:

1. Sica DA. Creatine: safety and usage pattern. *Am J Med Sports*.1998; Premier:21-26, 31-32.
2. Green G. Guest editorial – dietary supplements imperil eligibility, health. *The NCAA News*. October 26, 1998.
3. Shekelle PG, et.al. Efficacy and Safety of Ephedra and Ephedrine for Weight Loss and Athletic Performance. *JAMA*, 2003, 289 (12), 1537-1545.

**NCAA Banned-Drug Classes
2004-2005**

The NCAA list of banned-drug classes is subject to change by the NCAA Executive Committee. Contact NCAA education services or www.ncaa.org/health-safety for the current list. The term "related compounds" comprises substances that are included in the class by their pharmacological action and/or chemical structure. No substance belonging to the prohibited class may be used, regardless of whether it is specifically listed as an example.

Many nutritional/dietary supplements contain NCAA banned substances. In addition, the U.S. Food and Drug Administration (FDA) does not strictly regulate the supplement industry; therefore purity and safety of nutritional/dietary supplements cannot be guaranteed. Impure supplements may lead to a positive NCAA drug test. The use of supplements is at the student-athlete's own risk. Student-athletes should contact their institution's team physician or athletic trainer for further information.

Bylaw 31.2.3.1 Banned Drugs

The following is a list of banned-drug classes, with examples of substances under each class:

(a) Stimulants:

amiphenazole	methylene-
amphetamine	dioxymethamphetamine
bemigrade	(MDMA (ecstasy))
benzphetamine	methylphenidate
bromantan	nikethamide
Caffeine ¹ (guarana)	pemoline
chlorphentermine	pentetrazol
cocaine	phendimetrazine
cropropamide	phenmetrazine
crothetamide	phenfermine
diethylpropion	phenylephrine
dimethylamphetamine	phenylpropanolamine (ppa)
doxapram	effective August 2003
ephedrine	picotoline
(ephedra, ma huang)	pipradol
ethamivan	prolintane
ethylamphetamine	strychnine
fencamfamine	synephrine
meclofenoxate	(citrus aurantium, zhi shi,
methamphetamine	bitter orange)
	and related compounds

(b) Anabolic Agents:

anabolic steroids	dromostanolone
androstenediol	fluoxymesterone
androstenedione	fluoxymesterone
boldenone	gestrionone
clostebol	mesterolone
Dehydrochloromethyl-	methandienone
testosterone	
dehydroepiandrosterone	methyltestosterone
(DHEA)	
dihydrotestosterone (DHT)	tetrahydrogestrionone (TGH)
	trenbolone

nandrolone	stanozolol
norandrostenediol	Testosterone ² and related
norandrostenedione	compounds
norethandrolone	other anabolic agents
oxandrolone	clenbuterol
oxymesterone	methenolone
oxymetholone	

(c) Substances Banned for

Rifle:

alcohol
atenolol
metoprolol
nadolol

Specific Sports

pinidolol
propranolol
timolol
and related compounds

(d) Diuretics:

acetazolamide
bendroflumethiazide
benzthiazide
bumetanide
chlorothiazide
chlorthalidone
ethacrynic acid
flumethiazide
furosemide
hydrochlorothiazide

hydroflumethiazide
methyclothiazide
metolazone
Polythiazide
quinethazone
spironolactone
Triamterene
trichlormethiazide
and related compounds

(e) Street Drugs:

heroin
marijuana³

THC
(tetrahydrocannabinol)³

(f) Peptide Hormones and Analogues

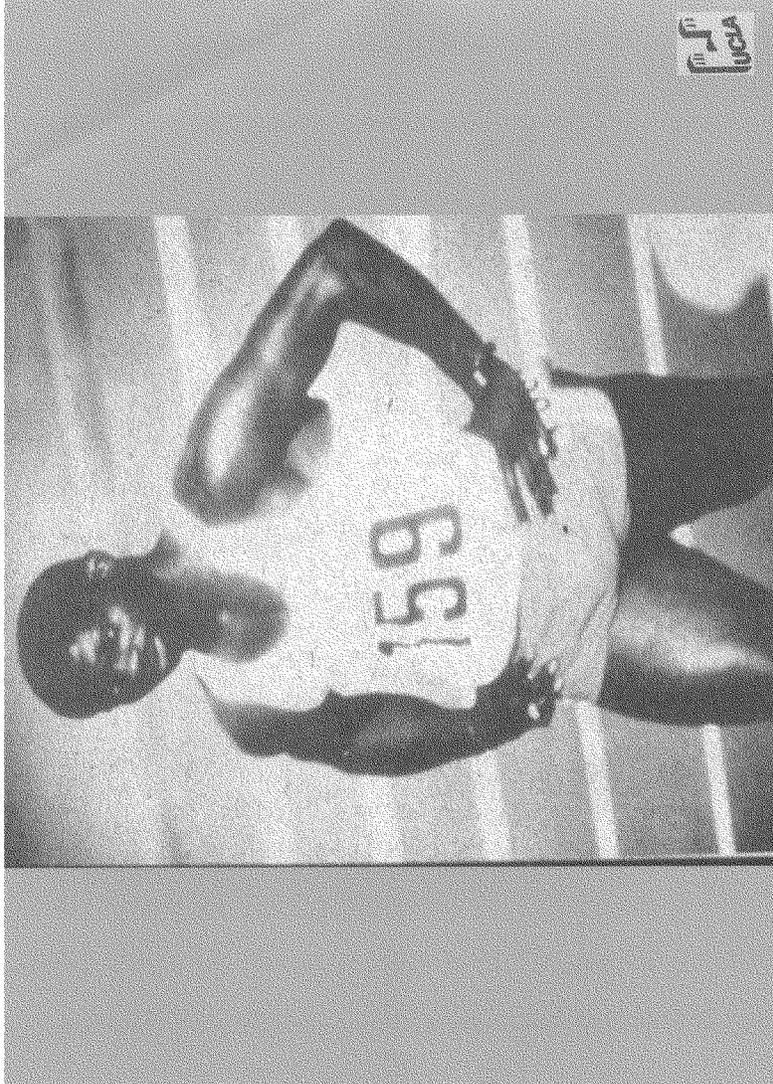
chorionic gonadotrophin (HCG-
human chorionic gonadotrophin)
corticotrophin (ACTH)
growth hormone (HGH, somatotrophin)
All the respective releasing factors of the above-mentioned
substances also are banned.
erythropoietin (EPO) Sermorelin

(g) Definitions of positive depends on the following:

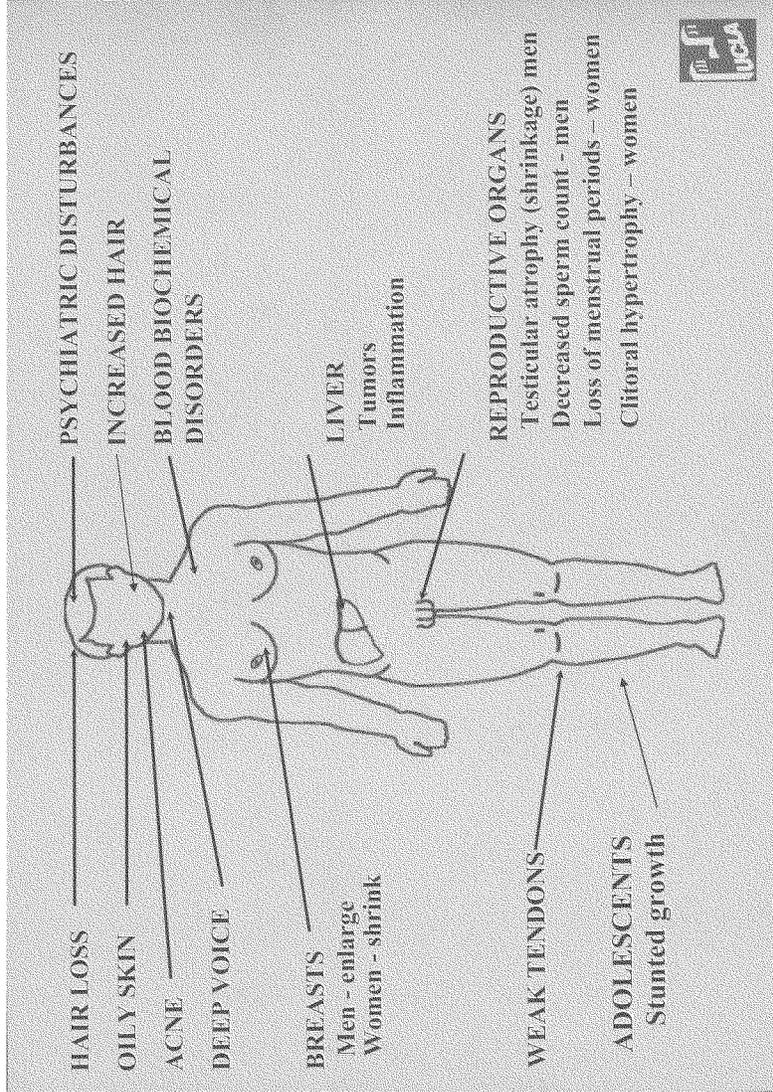
¹ for caffeine—if the concentration in urine exceeds 15 micrograms/ml.

² for testosterone—if the administration of testosterone or use of any other manipulation has the result of increasing the ratio of the total concentration of testosterone to that of epitestosterone in the urine to greater than 6:1, unless there is evidence that this ratio is due to a physiological or pathological condition.

³ for marijuana and THC—if the concentration in the urine of THC metabolite exceeds 15 nanograms/ml.











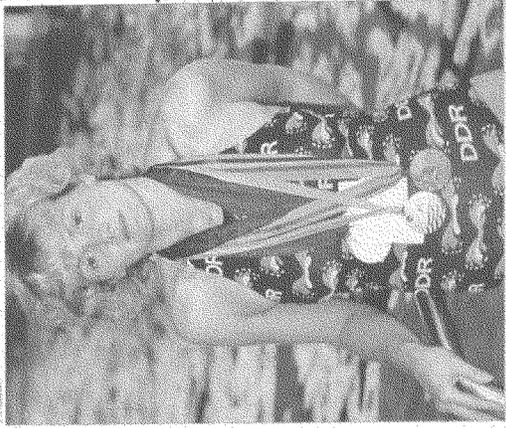
LE TÉMOIGNAGE DE KRISTIANE KNACKKE

Comment ils m'ont cassée

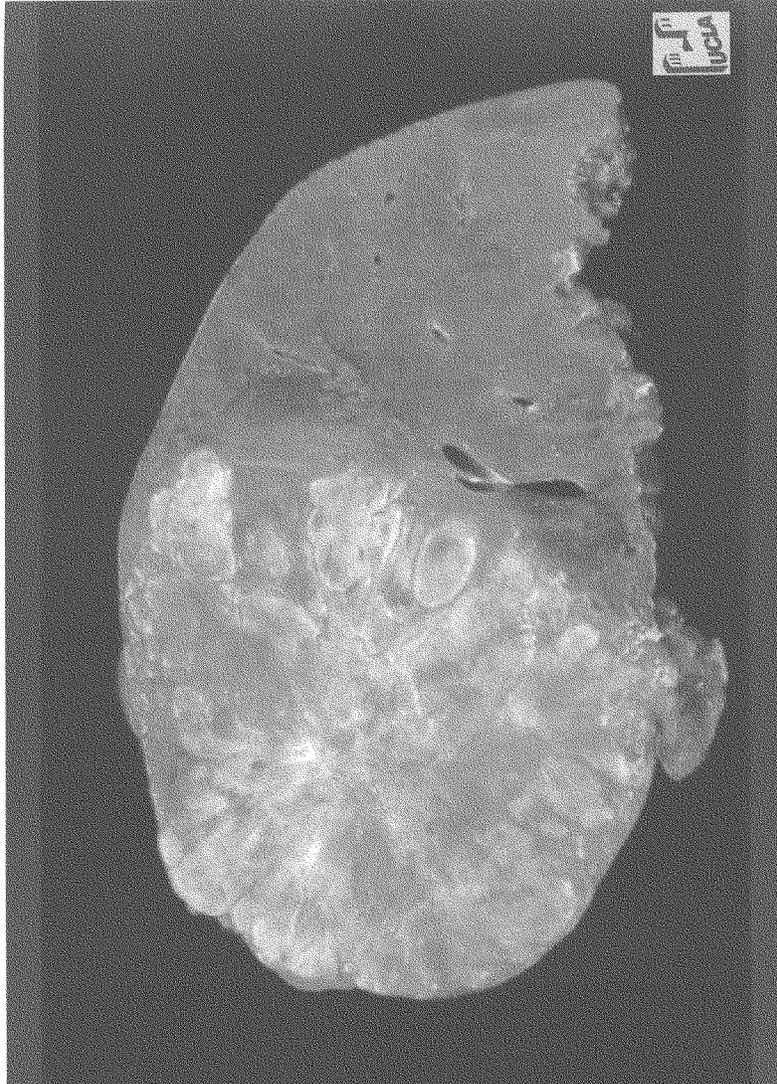
Pendant des années, les juges suisses, estoniens et allemands ont fait passer Kristiane Knackke pour l'une de ces championnes. Aujourd'hui réfugiée à Vienne, elle raconte son voyage au bout de la dope.

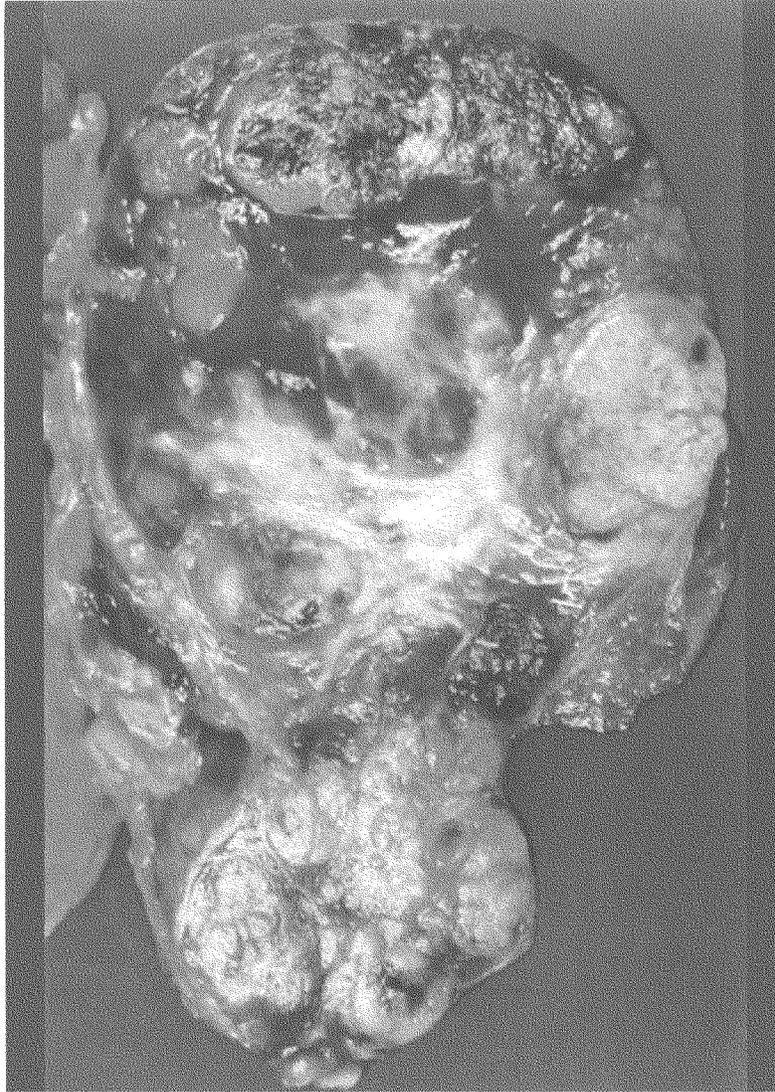
« J'avais 16 ans, je suis allemande, ma fille, Jennifer, ne pratiquait ni le sport de haut niveau... Elle, à 16 ans, se faisait appeler Kristiane Knackke. Je lui indiquais la compétition, quel que soit le lieu, et elle allait. Elle était très compétitive, elle gagnait tout le temps. Elle était très vite devenue une championne. Plus, comment le monde s'est dans quel vivait les sportifs de la RDA.

Kristiane Knackke a 27 ans. Né à Berlin. Elle a été à l'école en 1977, recevant un diplôme de

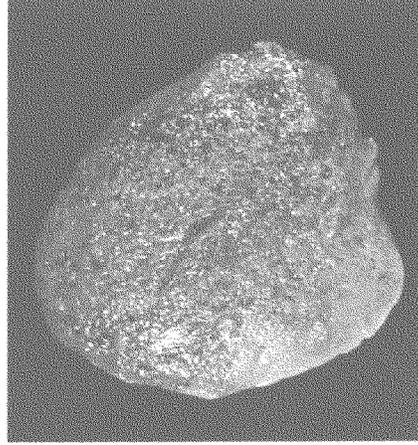
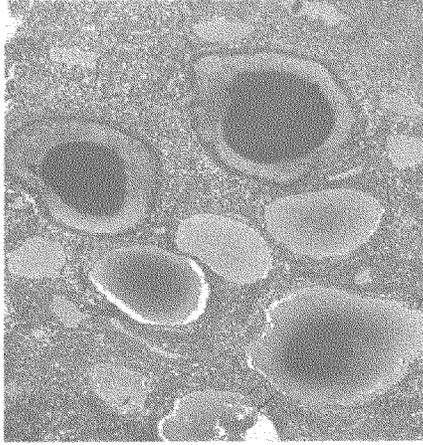


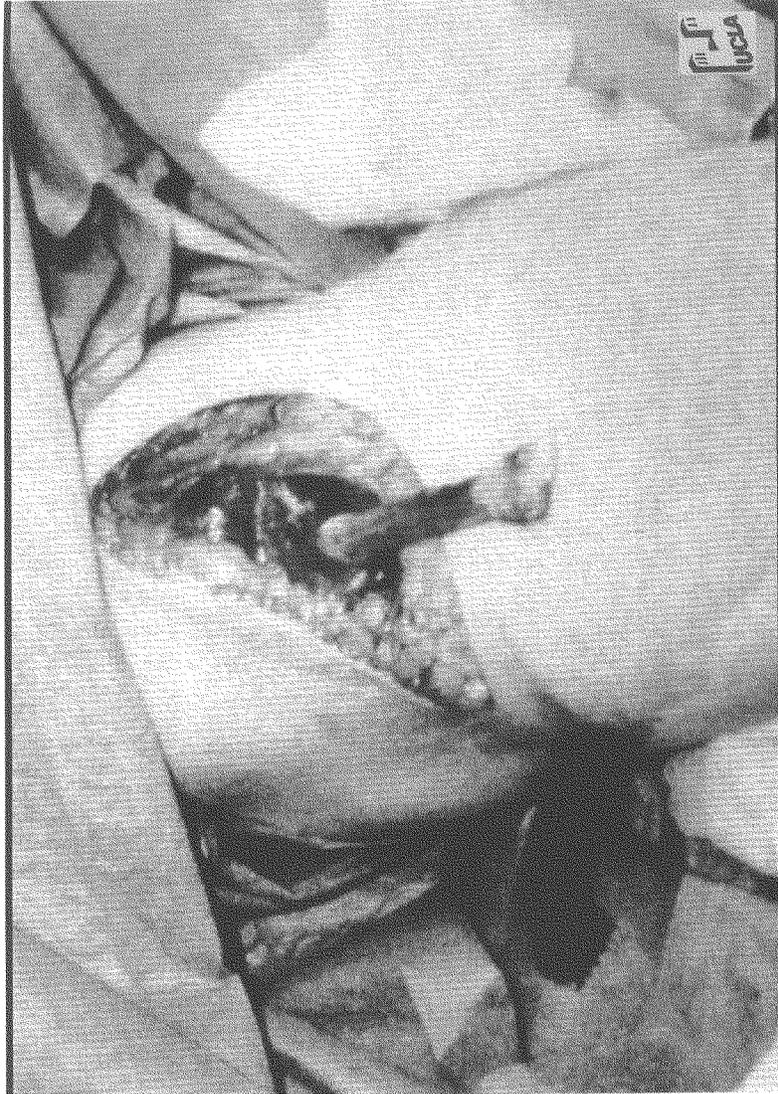






Peliosis Hepatitis: an Adverse Effect of AAS





A large, grainy black and white photograph of a man's face. He has a very large, dark, irregular mass on the right side of his face (viewer's left), which appears to be a tumor. The man has a serious expression and is looking directly at the camera. The background is dark and textured.

'LIED'

Former NFL star Lyle Alzado now admits to massive use of steroids and human growth hormone -- and believes they caused his inoperable brain cancer

A small, rectangular inset photograph in the top left corner of the main image. It shows a man in a suit and tie, looking slightly to the side. The image is also grainy and black and white.

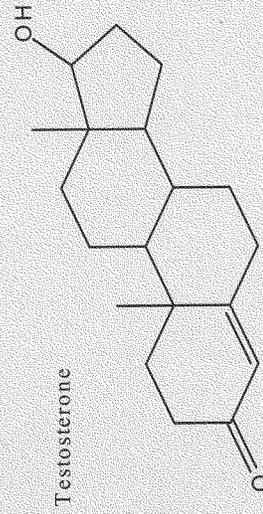
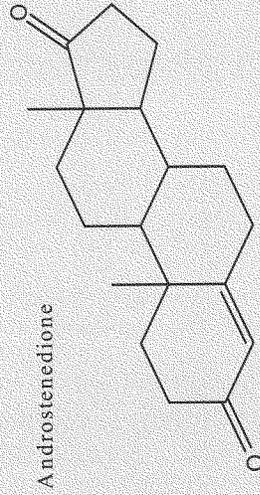
Steroids sold OTC as Nutritional Supplements

- **(4-Androstenedione)**
- **5-Androstenedione**
- **Androstenediol**
- **19-norandrostenedione**
- **19-norandrostenediol**

Androstenedione

- “Andro” is androstenedione
- Andro is metabolized (converted) to Testosterone in the body
- Andro is a pro-hormone
- Andro ‘sales banned’ (3/2004)
- Many other over-the-counter steroids are pro-hormones

Androstenedione and Testosterone



THG the first Designer Steroid

- **An anabolic androgenic steroid**
- **Designed to be undetectable in testing**
- **Designed to be super potent**
- **Developed by the clandestine chemist**
- **Not tested for safety or efficacy**
- **Hundreds can be designed**

**Thank you for your attention to this
vital issue.**

Presentation to:
Senate Caucus on International Narcotics Control,
July 13, 2004

on:

The Adverse Effects of
Anabolic Androgenic Steroids

By

Don H. Catlin, M.D.

Professor of Molecular and Medical Pharmacology
Director of UCLA Olympic Laboratory
University of California, Los Angeles

Chairman GRASSLEY. Well, you all gave us very not only interesting, but very powerful, messages, and I hope that they go well beyond the halls of Congress. An obvious part of the motivation of having a hearing like this is to educate people besides knowing what we in Congress need to do.

I am going to start my questioning with Mr. Doe. I need to, first of all, ask you why you were willing to come forward to speak to us about this issue.

Mr. DOE. I was willing to come forward because of my firsthand experience with college football, playing on a team, and I thought my message would be very informative about how bad steroid use can get, and as Dr. Catlin and Mr. Hooten have testified, the health risks and the psychological problems that steroids can cause. I hope that a policy can be developed to uniformly test college athletes and get rid of some steroid use.

Chairman GRASSLEY. How available are steroids among college athletes? I think you touched on this in your opening comments, but I give you this opportunity to emphasize just how available they might be among college athletes.

Mr. DOE. Yes, they are extremely available. You do not have to look too hard to find them. You can make a trip south of the border, or the Internet, if you do not know a dealer or a friend that can get them for you.

Chairman GRASSLEY. And I know you spoke about your own specific college, but in your judgment is there widespread use at colleges other than yours?

Mr. DOE. Yes. Like I said, my college looks down upon steroid use. And as I had imagined, there are colleges that are far worse, as far as steroid use. And I had the privilege to talk to some other Division I players that could also testify that their college athletes used steroids.

Chairman GRASSLEY. Once again, emphasize for us, from your point of view as a student-athlete, why is there a temptation to use steroids?

Mr. DOE. The temptation is there. You do not just have to look at amateur sports and college athletics. Look at professionals. They use steroids to break records. Just as Tim Montgomery was found to have been using steroids in the past few weeks, who already holds a world record; or Mark McGwire, who uses over-the-counter steroids, it is the same principle. Many college athletes will use steroids just to survive or make to an impact. They always want to get better.

Chairman GRASSLEY. Mr. Wenzlaff, you testified that 95 percent of steroids in circulation are fakes. What does it mean to "stack" and what is the purpose of the term "stacking"?

Mr. WENZLAFF. Stacking generally, as the doctor had touched upon, is the combination of two or more steroids taken at the same time, not necessarily starting two at the same time or finishing the two or more at the same time, but taking them in conjunction. It's the "more is better" philosophy, which is not always the case, but there is a true principle in there.

Chairman GRASSLEY. Let me ask you a personal question. Are you personally aware of the adverse health effects of steroid abuse?

Mr. WENZLAFF. Yes, I have seen some devastating effects through long-term and short-term use. When you are around it, yes, you see it. It is going to exist in anything and not just steroids, but basically any drug, but the answer to that question is, yes.

Chairman GRASSLEY. Why did you begin taking steroids in high school, and do you think that you would make the same choice today?

Mr. WENZLAFF. The answer is, no, we are smarter. Would I take them today? Why in the beginning? Money. I could not afford to go to college. It was a financial thing.

Chairman GRASSLEY. How hard is it to make counterfeit steroids?

Mr. WENZLAFF. It is very simple. It is as simple as putting sesame seed oil in a vial. There are thousands of people injecting that in their body, and they are unaware of it.

Chairman GRASSLEY. Are professional athletes as likely to take fake steroids as the average user?

Mr. WENZLAFF. It does occur, but not likely—money, what you can afford. Money is the key factor here, the ability to afford whatever you desire. Most kids cannot afford a several-hundred-dollar-a-day habit.

Chairman GRASSLEY. Dr. Catlin, before I go to you, Dr. Catlin, what are check drops, and how are they used, Mr. Wenzlaff—check drops and how are they used?

Mr. WENZLAFF. Check drops are a drug, from what I understand, that are prescribed for dogs in heat. They are just that, drops. The scientific name is mybolone, extremely powerful. You do not take it, compared to other drugs, for such a long period of time, but it is a dangerous, dangerous drug to play around with.

Chairman GRASSLEY. Dr. Catlin, how do steroids affect adolescents different than adults?

Dr. CATLIN. If your long bones have not finished growing, they stunt your growth. Otherwise the effects are the same in adults, all of the effects on the hormones, gynecomastia and so forth. The main differences are that males respond differently than females. But once you reach full adolescence, they are going to be the same.

Chairman GRASSLEY. And do we know the long-term effects of steroids on the body? And I am not sure that I have a definition of long-term effect, but just kind of from you being a medical doctor, choose your own definition of long-term effects.

Dr. CATLIN. This has never really been studied in any detail. These are expensive kinds of studies. But I have seen personally lots of patients who have long-term effects, some of which I would call minor and some are far more than just minor. The effects will regress over time, but sometimes that time period is 2, 3, 4, 5 years. Once these changes set in, they last.

Chairman GRASSLEY. Mr. Hooten, how did you discover there was a connection between your son's death and steroids?

Mr. HOOTEN. While they were taking Taylor's body from the house and to the hospital, the detectives asked us if they could search Taylor's room, which they did. Not only did they find his stash of anabolic steroids, but the detectives had no problems, at that very moment, making the connection between the anabolic steroids they found and what had just happened.

As you can imagine, as a dad, I went crazy. We had been around the ball parks for years and were unaware of the dangers of this stuff. We had heard about it, and knew it was not good, but had no idea how dangerous it was. So, over the next several weeks, I began reading everything I could get my hands on, talking to every doctor I could speak with. And as I began to go through all of the materials, all of the studies, talk to the doctors, it was like reading a textbook, if you will, as an analogy, it was just like reading what had happened in our home over the previous 4 to 6 months. It was right out of the textbook—the behavior, the physical changes.

But one of the points I would like to make here, the confirmation that Taylor had been taking steroids came from the medical examiner, who found two types of anabolic steroids in Taylor's body and, additionally important, found nothing else. There was nothing else to call this thing into question. This was the only stuff he had been putting in his body.

During a conversation with Dr. Rohr, who is the Collin County medical examiner that took care of Taylor, he pointed out to me that, "Mr. Hooten, had the detectives and the police, had they not made such a big deal about finding steroids in Taylor's room, you need to know we never would have looked for it." Even as a medical examiner, they would not have looked for the presence of anabolic steroids.

A couple of points to be made there: One, had they not checked for it, we never would have known. But on the bigger picture, especially with the dramatic increase in teenage suicide around the country, if our medical examiners are not looking for anabolic steroids at the time these kids have committed suicide, is it any wonder that we have not made any empirical connection between the use of anabolic steroids and some percentage of the high teen suicide rate that we have? If the other medical examiners around the country are following the same guidelines that ours is, we are not even looking for it.

Chairman GRASSLEY. And my last question, I think I am going to make a point, and I just think it is an emphasis of what you already said, but you obviously feel that our coaches are on the front line of defense to stop the use of drugs, particularly among high school and college kids, and that they are not sufficiently informed to do it and maybe do not want to do it either.

Mr. HOOTEN. Let us start with the first one. Let me start by paraphrasing a quote that I heard from Dr. Harrison Pope—Skip Pope—at Harvard University, who is one of the world's experts on the subject. He points out that steroid use is probably the only drug out there that a trained eye can see the steroid abuser and identify it as steroid abuse when the individual walks in the room. You can tell by the way he is built, the acne, the greasy skin, the puffy face. There are a whole list of symptoms that a trained eye can use to identify this.

First, our coaches are not trained, and require no training in our part of the country whatsoever, on the subject, the dangers in general or certainly to look for the symptoms.

Secondly, even if they know that they have got a kid using steroids, there is not a whole lot of incentive for them to do anything about it. I have heard coaches tell me privately that, you

know, why am I going to disarm myself? I am in a competitive world. I have got 2 years to get a win-loss record to earn or to keep my job. Why am I going to disarm myself and take on and tackle a steroid problem unless the guy on the other side of town that has got the other football team disarms the problem?

So I do not think they understand the dangers. There are probably those that are encouraging or that are aware of the dangers and doing nothing about it, but I think it is just benign ignorance and then benign neglect that they are not trained nor are there, at least in our experience with our local school officials, the school officials insisting that they pay attention to it or training them and insist that they deal with it. But they are indeed the ones that, in my experience, are best-positioned to solve this problem.

Chairman GRASSLEY. Thank you, Mr. Hooten.

Senator Biden.

Senator BIDEN. Thank you very much, Mr. Chairman.

First of all, thanks for your testimony from all four of you. I was particularly impressed, Mr. Wenzlaff, by your testimony because it is with no embellishment. You were precise, extremely precise, in your testimony, and I personally thank you for that.

One of the phrases that has been used here, Doctor, that I would like you to comment on, Mr. Wenzlaff referred to abuse of steroids. Now, that implies there is an ability to use steroids and not abuse them. He was very precise and, in my experience over the last 10 years, initially, 10 years ago getting into this field and contacting doctors, and athletes and others, to try to learn not only the extent, but the differences in the way, in the sophistication in the use of steroids.

There are those who said then, and say now, that if you had essentially a controlled regimen, which Mr. Wenzlaff indicated, where blood pressure is taken daily, 3 times a day, urinalysis, et cetera, you are essentially doing lab tests on a regular basis to see the effect on your body, to the extent that it is measurable, in terms of negative side effects, so my question here is, is there a distinction between abuse of steroids and use of steroids?

Dr. CATLIN. I am afraid I have to disagree with my colleague. I understand his point. It is an interesting one. In the early days in this country of steroids, many doctors were, in fact, prescribing them. They felt that as long as they prescribed them, they would control the dose, and there would not be so many side effects. The problem was they could not control them. The steroids were available in a—

Senator BIDEN. Well, that is really not my question. My question is, if they could be controlled, if you did laboratory experiments, if you put into—and one of the things I want to get to with you is that there is very little research being done on an intensive basis here—one of the questions I want to get to is; should we be funding such research at NIH or should we be doing something.

But if, in fact, it was a laboratory-controlled circumstance, and in that sense controlled, is it possible to use and consume anabolic steroids in a way that, assuming it was in a controlled circumstance, you were in an experimental program, that you could get the “benefit” and reduce in a significant way the negative side effects that are produced by the use of steroids?

Dr. CATLIN. No. Short answer—no. Some of these effects are just going to hit you no matter how much you take, and you are subject to that. Plus, it is cheating.

Senator BIDEN. Right. And the reason I say it, I mean, one of the things I have found in all of the years of dealing with these drug issues is that the single most important thing to do for John Doe, and he is an example of not using steroids, is to be as analytically straightforward and honest as you can be.

I mean, back in the 1960s, in the early 1960s, when we were told by parents that you should not smoke marijuana because you would go blind or it would make you, you know, I mean all of these things that were just simply not true. And then when students, young people, used it, and they did not have those bad effects, they figured all that we were told about drugs was not true. So I just want to make sure we are as absolutely candid about and honest about what we know and what we do not know about the use of steroids.

Now, my staff went out, and as you point out—all of you point out—there are hundreds of these products that can be bought over-the-counter. The molecular diagram you put up, Doctor, relating to andro and testosterone is the difference meaning that it is O, instead of HO, at the end. But your assertion is that once consumed and in the body, it takes on the exact property of testosterone, correct?

Dr. CATLIN. Exactly. The body converts it.

Senator BIDEN. Let us go back. Why would there be a need for someone to inject an anabolic steroid into their body if, in fact, they can legally purchase substances which would have the same chemical impact on the body? Now, that may not be true for all substances. It is for Andro, you are suggesting—not suggesting—you are stating, and it may or may not be so for THC or other drugs, other substances that are able to be purchased. What would be the reason why a young woman or man, seeking to enhance their performance or to get buff would not be able to completely satisfy their requirements by—and I am holding up only two of scores of products—that would have the same effect, and do they have the same effect? Is there a difference in the potency? If I were to consume this Andro, is that going to have any less or more impact on the production of testosterone in my body than if I injected it?

Dr. CATLIN. Yes. The steroids, they are all different potency. Some are lean, mean and strong, but if you take enough you get the same effects. They are just like testosterone. You just adjust the dose. So you have to look at the dose. You have to take 500 milligrams of Andro to get an effect. If you only take 100 milligrams for the day, that is not going to have much of an effect. And you have to take it for a period of time, two weeks or three weeks.

Senator BIDEN. Got you, okay. So that the essence of this hearing is to determine whether or not Senator Grassley and my attempt to close the loophole that we thought we took care of in the 1990s is appropriate and necessary. So that for the record, Doctor, I have Andro 100 Poppers. I guess Pinnacle is the brand name. The reason why this should be outlawed—and by the way, all the items you all mentioned are covered by legislation, would be outlawed—would be treated like an anabolic steroid under the statute. The

reason this should be outlawed is because if, depending on the dosage, it can have the same enhancing and the same negative impacts as an anabolic steroid consumed by injection, injected into the body. Is that what we are saying?

Dr. CATLIN. That is what you said, and I agree with you. It is an anabolic androgenic steroid sold over-the-counter.

Senator BIDEN. What I do not want, and what I hear sometimes when I am in a gym or when I am around athletic performers, is that I got it all wrong, that this is not really the same thing, this does not have the properties, this cannot do the damage, this cannot have the positive or negative impact, I mean, among those who consume this product, for example. So for the record, the testimony is that the consumption of these and other products, which we will put in the record, that would be covered by our legislation, do have performance enhancing—in my view, cheating—aspects of competition, and they do have the negative medical impacts that anabolic steroids do, depending on the degree to which they are consumed, the dosage, et cetera. Is that correct?

Dr. CATLIN. If you take those things into consideration, they are all the same.

Senator BIDEN. Mr. Hooten, I cannot tell you how much I admire your willingness to come forward, and I just cannot fathom the difficulty you have had dealing with the loss. All one has to do is lose a child to understand the depth of it, and to lose a child to suicide is beyond being able to be fathomed, by me anyway.

But let me ask you one question I have been debating here whether to ask you, because it is a difficult question, and I have lost a child as well, not to suicide. It was an automobile accident early on. When you saw this impressive weight gain and muscle mass, what did you think?

Mr. HOOTEN. That is a great question because one of the things you do after a suicide is you ask yourself, why did we not notice this? Why did we not connect it with something? We have asked that question of ourselves a thousand times.

Taylor was—I do not know that he was taking Andro. I do not believe he was. He was taking some protein supplement purchased at the local health food store. He was working out like crazy at the Y. He was 16-years-old, 16-and-a-half and growing. And so number one, you kind of figure—maybe we chose not to see it, did not see it, but for whatever reason did not recognize—

Senator BIDEN. The point I was leading to, look, if the whole world, the whole world could see this picture and then this picture—and they did not happen overnight—there are a whole hell of a lot of races that occurred between this picture and this picture.

Mr. HOOTEN. Yes.

Senator BIDEN. And a lot of people thought, who were not experts, God, he is really working out.

I guess what I am trying to say is, one of the things, Doctor, that you said, I think has to be reiterated to every coach so you cannot engage in rationalization. It is virtually impossible, from the time school lets out in May or June to the time you come back in September and October, for a kid to be able to put on 25 or 30 pounds of muscle. He or she could work out in the most incredibly structured regime with an Olympic bodybuilding coach, but the chances

of that being able to be done without some chemical enhancement are virtually impossible are they not?

Dr. CATLIN. Yes.

Senator BIDEN. I just think we have to repeat that and repeat that to people, that you cannot go from 13-inch arms to 18-inch arms in a matter of even six months, you cannot go to it in a year—maybe you could in a year—but you cannot do that without some chemical enhancement. The quicker everybody gets beyond this malarkey about that somehow, “We have a hell of a weight room, man. We got a hell of a workout program.” Ain’t no such thing to be able to put on that kind of mass. Is that right?

Dr. CATLIN. You have it right, sir.

Senator BIDEN. I know these are overly simplistic questions to be asking a man of your background, but believe it or not, there are thousands of people out there, there are thousands of fathers and mothers, particularly fathers, who would like to believe their kid at 16 just grew and became stronger naturally. I can remember my own personal experience. I grew 6 inches from the time I was in March of my sophomore year to November of my senior year, and that is how much I grew, over 5 inches. Now, people say, well, they see these growth spurts, and so they rationalize to themselves or think to themselves, well, it could have just as easily been, if I am already 6-3 and I am already a hell of a physical specimen and I am already 170-some pounds and I am 16-years-old, why could I not have at that growth spurt put on 25 pounds of muscle? But you cannot, can you?

Dr. CATLIN. No.

Senator BIDEN. I just really think it is an important point to pound home to people so we do not allow coaches, we do not allow parents, we do not allow people to rationalize that this is possible because the kid has a hell of a work ethic.

The next point I want to ask—I am sorry to go on, Mr. Chairman. I will try to make this as quick as I can. If the difference between a 15-year-old and a 50-year-old, getting on the same regime of consumption, whatever it happens to be, of Andro or any of the over-the-counter substances that we are trying to outlaw, the difference is what, that it can stunt, it can have more profound effects on growth patterns for a 15-year-old than it can for a 50-year-old who already, the bone has grown as much as it is going to grow, the height, et cetera. But is there any other difference in effect? Is it safer for a 50-year-old to consume this stuff, but for that, than it is for a 15-year-old?

Dr. CATLIN. One of the big differences is that the younger person is working out. You cannot just take a couch potato and fill him full of steroids and get him huge and strong. They have to be working out. They have to be diligent about their weight room and their training.

An older person, a male once they get past age 50, their testosterone levels begin to fall. It is legitimate in medical science to treat a patient with lowering levels by giving them controlled doses and bringing them back up, and there is, in fact, some legitimate use of testosterone today for just that purpose, because men, as they age, get weaker. Their muscles get less strong. That is very different than making steroids available that can propel you from

this point, way, way up here to become one of these very hulky monsters.

Senator BIDEN. But in terms of the negative side effects on the body, are there enough studies that are out there to demonstrate that—and you got right to what I was getting at—because there are in medical literature—I am above my pay grade here, okay—but the medical literature as I understand it, there is some increased discussion about maintaining testosterone levels for men above the age of 50. My question, just purely an analytical question as an inquisitive person, is if you are supplementing a decline in the naturally-produced testosterone in the human body and raising the level up, is the physiological impact on the body negative or any different than supplementing a testosterone level, enhancing it beyond what the body is producing in a normal fashion?

Dr. CATLIN. In a technical fashion, I cannot answer that. It is a wonderful question. It is a study that ought to be done. We are concerned, however, as men age, one of the reasons we do not like to give them testosterone is that their prostate gets large, and testosterone stimulates the prostate, and so the debate in medical science is whether or not giving steroids to men to bring their testosterone and their muscles back to normal—I mean, everybody's muscles just fade away when you start getting older—to bring those back does not seem like such a bad thing. But if you are going to stimulate growth of the prostate, it is. There is a lot of biomedical research to try to answer that question. I watch it very closely for my own reasons.

Senator BIDEN. Again, I apologize for going into this kind of detail, but it seems to me one of the things that our efforts here should spark is a larger debate and discussion, scientific discussion, about the positive and negative uses of some of these supplements. To me it does not relate to whether or not they should be illegal over-the-counter, and so just to make it clear for the record, even if medical science proved beyond a reasonable doubt that the consumption for a man over 50 of THC or some other substance, or Andro, would in fact have a beneficial impact, I believe it still should be illegal over-the-counter and only available with a doctor prescribing it.

I do not want anyone listening to this hearing, for them to think that I think well, maybe we should reconsider whether or not we should make this illegal. This is always available by medical prescription. The doctors are able to make a case if need be, for the use of steroids or the use of injection of testosterone into an individual. But it seems to me we are getting into an area here too that we should be thinking about, maybe not this committee, but us thinking about whether or not we should be funding research at NIH to have more of a looking glass into the effects of these various substances on the body long term.

Curtis, if you do not mind my calling you by your first name, back in the days when you were in this milieu did the guys, quote, unquote, at the gym talk about the effects, the testicular effect on them? Did they observe and notice that their testicles were smaller? Did they talk about or worry about the effects of oilier skin and acne? Did they talk about breast enlargement? Was it a worry?

And did people try to figure out how I get the benefit but not get the female-looking enlarged breast?

Mr. WENZLAFF. Absolutely.

Senator BIDEN. I mean, talk to us like an athlete about the conversation at the gym 20 years ago in the use of this stuff?

Mr. WENZLAFF. There are side effects that you will potentially experience. This may happen. It has happened to X, Y and Z. It did not happen to L, M, N, O. You know, these are risks you are going to take, but look what you are going to get as a result. Look at the end result.

Senator BIDEN. The reason why—and I will conclude—

Mr. WENZLAFF. Very compelling.

Senator BIDEN. Yes. The reason why—and I will conclude with this, Mr. Chairman—Mr. Hooten, that Plano would spend \$15 million for a ballfield—we do not spend that much for our college fields, by the way, some of us, but anyway, for a facility—I am not criticizing, just observing, that is a hell of an investment in an athletic complex for most parts of the country—and not decide to invest more money in prevention and observance and education, et cetera, is the point that Dr. Catlin made I think, and I will end with this and ask you each to speak to it.

My experience in dealing extensively in trying to deal with other drug abuse problems, whether it is speed or cocaine or heroin or a whole range of issues, is that Dr. Kleber up at Columbia and others who started educating me 20 years ago on these issues, said something interesting to me, and I think it applies here, that unless the risk is overwhelming, it is a product of youth to conclude they will not be in that risk pool. It is just an assumption, not me. It will not happen to me. The reason why I suspect, Doctor, and I appreciate your being here as a scientist and suggesting that these God-awful slides you put up occur rarely, but occur, and you do not know why they occur, you do not know why it occurs in Smith and not Jones who use the same things. If it occurs in Smith and not Jones, everyone thinks they are Jones when they are 15-years-old. Everybody thinks they are Jones when they are 18-years-old. So that is why I think that we need a heck of a lot more research in trying to figure out the predictability of these negative impacts on people in order to have an impact.

But I guess I will not even ask for you to comment. I have other questions I will submit in writing. The hearing has gone beyond what at least I anticipated, taking this long, and so I thank you all very, very much.

And I thank you, Mr. John Doe, for having the willpower and the foresight to take the position you have taken.

And, Curtis, I thank you a lot. I mean you gave us an analytical straightforward view of what it was before. I cannot imagine that it is a lot different now, but thank you very much, both of you.

Mr. Hooten, my heart is with you, pal.

Mr. HOOTEN. Thank you.

Senator BIDEN. But it does get better.

Chairman GRASSLEY. Mr. Doe, I have a couple of short questions for you. Did you ever take Andro, and if you did, what effect did it have on you?

Mr. DOE. Yes, I did take Androstenedione in high school. I did not consider it a steroid at the time, but obviously it is from the testimony you have heard. It did have somewhat of a psychological impact on me as well as a physical one.

Chairman GRASSLEY. Then you testified that you knew people on your team who were using steroids. Do you believe that those who used were aware of the dangerous side effects that we have heard about here today?

Mr. DOE. That is hard to answer, but I think the majority were aware of the effects.

Chairman GRASSLEY. I thank you all for your testimony, and appreciate very much your participation. I cannot say much more than thank you. I know you took a lot of time out of your busy schedules to be with us. We appreciate it very much, adding to the knowledge of the danger of steroids. Thank you very much.

The Caucus is adjourned.

[Whereupon, at 12:33 p.m., the Caucus was adjourned.]

A P P E N D I X

QUESTIONS FOR THE RECORD

Dr. Catlin, you have been at this long enough to know that everyone thought we had the steroid problem solved back in 1990 when we passed the Anabolic Steroid Control Act that first made steroids illegal. Little did we know then that a seemingly harmless line in the definition of “anabolic steroid”—namely, that the substance must promote muscle growth—would come back to haunt us. That is why the steroid legislation pending today gets rid of that muscle growth requirement to make it easier to add substances to the list of illegal anabolic steroids in the future.

But we will still have the problem of detecting and identifying new substances. You and your team of scientists did a great job identifying THG last year. You are clearly the expert on problems related to identifying new substances.

How do we stay ahead of the scientific curve on this? Is there anything that we can do in terms of resources, equipment, etc. to help you to detect new designer steroids or new doping techniques?

Not only can we get ahead but we can stay ahead. At times the problem of drugs in sport seems intractable, but it is not. In the past 20 years we have learned that only a few athletes take drugs but they ruin it all for everyone else, that we need to test all-year-around not just at events, that we need very sophisticated analytical methods, that we have to be able to defend our work in courts of law, and most of all that we need to have a sustained properly funded research and development effort.

BACKGROUND FACTS

- The nature of the laboratory testing process is exceedingly complex and gets more so each day.
- There are tests for some but not all the drugs that enhance performance: there is a steroid test, but it keeps needing to be expanded to cover new designer drugs. There is an EPO test, although it has a lot of room for improvement, but the test for human growth hormone is not here yet.
- Each new test method and instrument is more expensive than the last method.
- Funding is the rate limiting step in the pathway to truly clean sport.

HOW TO SOLVE THE PROBLEM OF DRUGS IN SPORTS: THE INFRASTRUCTURE

The most important element in the fight against designer drugs is *research and development (R&D)*. Without R&D, the lab could easily test each of 40,000 urine samples a year perfectly, but it couldn't troubleshoot or optimize existing methods, let alone crack new designer steroids and invent new tests for them. Without constant attention and pruning the methods would become obsolete. The latest advances in chemistry need to be exploited as soon as possible because the clandestine chemists who make designer steroids never rest.

Why not let the lab seek R&D funding for each new problem as it arises? This would be far too slow. The laboratories need to be nimble and fast. After all we now know that the Balco drugs were in play for five years before we caught on. The administrative process could easily take funding agencies a year before the lab can assign any resources (personnel, equipment, supplies) to begin to work on the problem. This would inherently keep enforcement lagging far behind the cheaters. We need to be ahead like we were when we found athletes on a just released drug at the Games of Salt Lake City.

What if R&D funding were to be given in advance of when specific problems arise? For example, in the past few years, my lab has had unrestricted grants for research on designer steroids that we were obviously not able to name in advance. But even these grants can only help achieve so much. This is because they are, typically and at best, only sufficient to fund one senior researcher for a year or two. This kind of offer might attract young Ph.D. graduates looking for short-term post-doctoral training before moving on to a position with real career potential. Post-docs give

their best but only for the short time they stay, like a flash in the pan. Thus, throwing an occasional few hundreds of thousand dollars at the problem is not the way to stay ahead of the scientific curve.

To develop and sustain a long-term research effort, the system needs to attract and retain world class research scientists, by offering them competitive opportunities for professional growth and sufficient financial support to acquire new technologies. Analytical and synthetic chemists, pharmacologists, and molecular biologists would pool their expertise. Then doping control research could blossom into an exciting, vigorous, dynamic field. This can only be done with sufficient, long term funding on the scale of at least a few million dollars a year for at least five years.

HOW TO SOLVE THE PROBLEM OF DRUGS IN SPORTS: THE SCIENTIFIC APPROACH

On the technical side, if we had sufficient funding to have a dedicated R&D team, I believe we could find a way to detect designer drugs virtually within days of their release. It would be helpful if we could establish a relationship with government investigators so that we could obtain early intelligence from their field operations. But even in the best case scenario, this would be an expensive and laborious way to stamp out drug use, one designer drug at a time, while nothing keeps cheaters from moving on overnight to the next designer drug: we would be pushing the problem around instead of solving it.

Therefore, there is a need to leap ahead of the curve and consider a novel approach, capable of detecting any known or novel manipulation. Such a test would monitor many physiological measures and watch for any drift outside of the range of normal. Although this would be a vast improvement, it would still be true that no test can catch all cheaters, and that substantial resources would be spent on an adversarial system. Yet another leap ahead of the curve then, is to turn the culture around, and reward integrity instead of punishing cheating.

I propose a volunteer program in which athletes wishing to compete drug-free would enroll and consent to be tested (doping control test) and examined (medically) at any time. The rationale is that only drug-free athletes would sign up. The cheaters would not dare because they know they would be caught. Drug-free athletes welcome testing! It is the cheats that run and hide.

Volunteers whose medical parameters (e.g. hematocrit) shift out of line would be asked to leave the program. They would not be suspended from competition, but their name would be removed from the public list of volunteers. Volunteers who test positive for a banned substance would be suspended from competition—but chances are there wouldn't be any. The unique and different feature of the volunteer program is that it rewards the athletes that don't take drugs. A volunteer program like this ought to be tried in order to see if it can get drugs and cheating under control.

CONCLUSIONS

What Congress can do to help is boost the R&D effort in the very long term by funding internships, fellowships, training programs, and maybe even create a research institute funded in perpetuity. We need fresh eager scientists to come into the field. The science is inherently exciting and attractive to them but they have no career path, no school to attend, no jobs like there are in industry. Doping control is here to stay—that is the public will.

United States Anti-Doping Agency



August 2, 2004

Senator Joseph R. Biden, Jr.
201 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Biden:

The United States Anti-Doping Agency (USADA) appreciates your interest and support in eradicating drug use from sport and thereby protecting the rights of clean athletes to compete on a level playing field and the integrity of fair competition. As you know, USADA has been tasked with ensuring drug-free competition within the U.S. Olympic movement since October 2000 and hopes to assist with these efforts for all of sport in the U.S.

United States Anti-Doping Agency
2550 Tenderfoot Hill Street, Suite 200
Colorado Springs, Colorado
80906-7346
Phone: 719-785-2000
Fax: 719-785-2001
usada@usantidoping.org

I have written my response to your questions below. If you need additional information or insight from USADA, please feel free to contact me directly at anytime.

Board of Directors
Ralph Hale, MD, Chair
Richard Cohen, MD, Vice Chair
Barry Axelrod, Treasurer
Kate Hendrickson Borg, Secretary
Evelyn Ashford
Peter Brown, ATC/L, MSPT
Lawrence Brown, MD, MPH
Jean Fourcroy, MD, PhD, MPH
Andrew Mecca, Dr. PH, MPH

Do you believe that we should have a uniform testing protocol and uniform sanctions in all of our major league and amateur sports?

USADA supports uniform testing protocols and sanctions for all sport in the United States. Since both professional and amateur sport play such an important role in American society and athletes are frequently cited as having substantial influence on our youth, a uniform and consistent approach to drug use in sport is of vital importance. Additionally, all athletes in the U.S., not just those in the Olympic movement, deserve the privilege of pursuing a career and possibly a livelihood on a level, drug-free playing field. A uniform, consistent testing and result management program is one valuable tool toward the goal of drug-free sport.

If you could design it, what would the new testing and sanctions system look like?

USADA believes there are a few basic tenets to a comprehensive program aimed at achieving drug-free sport, many of which are incorporated into the World Anti-Doping Code which has been adopted by approximately 460 sport organizations and 137 governments around the world. The basic areas of a successful anti-doping program include the following:

1. Comprehensive testing programs which include in-competition and out-of-competition, no-notice testing. This testing should be done throughout the year not only during the competition season.
2. Comprehensive list of substances banned for use similar to that as implemented by the World Anti-Doping Agency. Importantly, the list of prohibited substances must have provisions which anticipate and prohibit new designer drugs such as THG; or, those drug users who are sophisticated enough will always be one step ahead by designing new undetectable drugs with little or no concern of receiving consequences if ever discovered.
3. A results management or adjudication system which successfully balances the rights of the accused with the rights of drug-free athletes and clean sport. The WADA Code identifies the right to a timely hearing; the right to a fair, impartial and independent hearing body; the right to be represented by counsel; and, the right to a timely, written, reasoned decision. This system must allow sport authorities to act on evidence which may not include a positive drug test and also give sport authority to sanction non-athletes such as coaches, trainers and others who participate in doping activities.
4. Serious sanctions for doping violations which reflect the importance of staying drug-free and also effectively deter drug use in sport. The WADA Code has a two year sanction for a first offense for drugs such as steroids and a lifetime ban for a second offense for these same drugs. There are lighter penalties for drugs which are not usually considered performance enhancing drugs but still contrary to the spirit of sport, such as marijuana.
5. An education program which addresses the needs of its constituents not only to inform athletes and coaches of the health

consequences of using drugs in sport but which also allows athletes to address nutritional and medical needs while simultaneously supporting the anti-doping rules.

6. A research program which seeks out and funds top level researchers to stay in step with those who choose to use drugs in sport and which fosters creative alternative solutions to assist in stopping drug use in sport.

I sincerely hope this brief outline provides you the insight necessary for you. I look forward to further communication with you and your office on these important issues.

Sincerely,



Terrence P. Madden
Chief Executive Officer



U.S. Department of Justice
Office of Legislative Affairs

Office of the Assistant Attorney General

Washington, D.C. 20530

September 15, 2004

The Honorable Charles E. Grassley
Chairman
Caucus on International Narcotics Control
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed please find a response to a question posed to Mr. Joseph T. Rannazzisi, Deputy Director of the Drug Enforcement Administration, following Mr. Rannazzisi's appearance before the Caucus on July 13, 2004. The subject of the Caucus's hearing was the abuse of anabolic steroids by amateur athletes.

We hope that this information is helpful to you. Please do not hesitate to call upon us if we may be of additional assistance in connection with this or any other matter.

Sincerely,

A handwritten signature in cursive script that reads "William E. Moschella".

William E. Moschella
Assistant Attorney General

Enclosure

cc: The Honorable Joseph R. Biden, Jr.
Co-Chairman

Question from the Senate Caucus on International Narcotics Control following a hearing conducted on July 13, 2004, entitled "The Abuse of Anabolic Steroids and Their Precursors by Adolescent Amateur Athletes".

1. During the hearing, I (Senator Grassley) displayed a number of examples of illegal steroids being bought and sold over the internet, including on Ebay. It troubles me that with the click of a mouse, anyone with access to a computer could purchase these illegal drugs right from the comfort of their own home. Please explain for me what action the DEA has taken since the hearing to stop the sale of illegal steroids on Ebay?

Immediately following the July 13th hearing, the Drug Enforcement Administration's (DEA) Deputy Director of the Office of Diversion Control, Joseph T. Rannazzisi, contacted Ebay to discuss the steroid listings noted during the hearing. As a result, the listings were promptly removed from the auction pool. The DEA now regularly conducts "key-word searches" of Ebay to identify and remove steroid (Schedule III) listings from the auction pool. We have also provided Ebay with an extensive list of Schedule III anabolic steroids (both trade and generic names) to add to their "filters" to prevent the substances from appearing on their site.

The DEA is working with Ebay to seek new and enhanced methods to prevent controlled substances, listed chemicals and pharmaceutical tabulating and encapsulating machines from being posted on their web site. With Ebay's assistance, we have sought to remove listings involving the sale of controlled substances, as well as chemicals utilized in the manufacture of controlled substances.

Our Office of Diversion Control is scheduled to meet with security personnel and attorneys representing Ebay to discuss refinements in "filtering" software utilized by the company to preclude illegal or questionable listings from appearing on their site.