

# Depression and

## Stroke

### **Symptoms of Depression**

- **Persistent sad, anxious, or “empty” mood**
- **Feelings of hopelessness, pessimism**
- **Feelings of guilt, worthlessness, helplessness**
- **Loss of interest or pleasure in hobbies and activities that were once enjoyed, including sex**
- **Decreased energy, fatigue, being “slowed down”**
- **Difficulty concentrating, remembering, making decisions**
- **Insomnia, early-morning awakening, or oversleeping**
- **Appetite and/or weight changes**
- **Thoughts of death or suicide or suicide attempts**
- **Restlessness, irritability**

***If five or more of these symptoms are present every day for at least two weeks and interfere with routine daily activities such as work, self-care, and childcare or social life, seek an evaluation for depression.***

### **For more information about depression and research on mental disorders, contact:**

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NIMH Depression Publications  
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Depression can strike anyone, but people with serious illnesses such as stroke may be at greater risk.

Appropriate diagnosis and treatment of depression may bring substantial benefits to persons recovering from a stroke by improving their medical status, enhancing their quality of life, and reducing their pain and disability. Treatment for depression also can shorten the rehabilitation process, lead to more rapid recovery and resumption of routine, and save health care costs (e.g., eliminate nursing home expenses).

Stroke can occur in all age groups and can happen even to fetuses still in the womb; but three-fourths of strokes occur in people 65 years of age and over, making stroke a leading cause of disability in older persons. Of the 600,000 American men and women who experience a first or recurrent stroke each year,<sup>1</sup> an estimated 10 to 27 percent experience major depression.<sup>2</sup> An additional 15 to 40 percent experience some symptoms of depression within two months following a stroke.<sup>2</sup>

The average duration of major depression in people who have suffered a stroke is just under a year. Among the factors that affect the likelihood and

severity of depression following a stroke are the location of the brain lesion, previous or family history of depression, and pre-stroke social functioning. Stroke survivors who are also depressed, particularly those with major depressive disorder, may be less compliant with rehabilitation, more irritable, and may experience personality change.<sup>2</sup>

Despite the enormous advances in brain research in the past 20 years, depression often goes undiagnosed and untreated. Stroke survivors, their family members and friends, and even their physicians may misinterpret depressive symptoms as an inevitable reaction to the effects of a stroke. But depression is a separate illness that can and should be treated, even when a person is undergoing post-stroke rehabilitation. Although depressive symptoms may overlap with post-stroke symptoms, skilled health professionals will recognize the symptoms of depression and inquire about their duration and severity, diagnose the disorder, and suggest appropriate treatment.

### **Depression Facts**

Depression is a serious medical condition that affects thoughts, feelings, and the ability to function in everyday life. Depression can occur at any age. NIMH-sponsored studies estimate that 6 percent of 9- to 17-year olds in the U.S. and almost 10 percent of American adults, or about 19 million people age 18 and older, experience some form of depression every year.<sup>3,4</sup> Although available therapies alleviate symptoms in over 80 percent of those treated, less than half of people with depression get the help they need.<sup>4,5</sup>

Depression results from abnormal functioning of the brain. The causes of depression are currently a matter of intense research. An interaction between genetic predisposition and life history appear to determine a person's level of risk. Episodes of depression may then

be triggered by stress, difficult life events, side effects of medications, or other environmental factors. Whatever its origins, depression can limit the energy needed to keep focused on treatment for other disorders, such as a stroke.

### **Stroke Facts**

A stroke occurs when the blood supply to part of the brain is suddenly interrupted or when a blood vessel in the brain bursts, spilling blood into the spaces surrounding brain cells. Symptoms of stroke appear suddenly and often there is more than one symptom at the same time:

- Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body
- Sudden confusion, trouble talking, or understanding speech
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, or loss of balance or coordination
- Sudden severe headache with no known cause

The most important risk factors for stroke are hypertension, heart disease, diabetes, and cigarette smoking. Others include heavy alcohol consumption, high blood cholesterol levels, illicit drug use, and genetic or congenital conditions, particularly vascular abnormalities.

Gender also plays a role in risk for stroke. Men have a higher risk for stroke, but since men do not live as long as women, women are generally older when they have strokes and are more likely to die from them. However, women's hormonal changes during pregnancy, childbirth and menopause increase their risk for stroke. The risk of stroke associated with pregnancy is greatest in the postpartum period—the 6 weeks following childbirth. Risk for stroke also varies among different ethnic and racial groups.

Although stroke is a disease of the brain, it can affect the entire body. Some of the disabilities that can result from a stroke include paralysis, cognitive deficits, speech problems, emotional difficulties, fatigue, and daily living problems. Many people require psychological or psychiatric help after a stroke. Depression, anxiety, frustration and anger are common post-stroke disabilities. Because stroke survivors often have complex rehabilitation needs, progress and recovery are unique for each person. Although a majority of functional abilities may be restored soon after a stroke, recovery is an ongoing process.

## **Get Treatment for Depression**

Depression can affect mind, mood, body and behavior. While there are many different treatments for depression, they must be carefully chosen by a trained professional based on the circumstances of the person and family. Prescription antidepressant medications are generally well-tolerated and safe for people recovering from a stroke. There are, however, possible interactions among some medications and side effects that require careful monitoring. Therefore, stroke survivors who develop depression, as well as people in treatment for depression who subsequently suffer a stroke, should make sure to tell any physician they visit about the full range of medications they are taking.

Specific types of psychotherapy, or “talk” therapy, also can relieve depression. Sometimes it is beneficial for family members of a stroke survivor to seek counseling as well.

Treatment for depression in stroke survivors should be managed by a mental health professional—for example, a psychiatrist, psychologist, or clinical social worker—who is in close communication with the physician providing the post-stroke rehabilitation and treatment. This is especially important when

antidepressant medication is prescribed, so that potentially harmful drug interactions can be avoided. In some cases, a mental health professional that specializes in treating individuals with depression and co-occurring physical illnesses such as a stroke may be available.

Recovery from depression takes time. Antidepressant medications can take several weeks to work and may need to be combined with ongoing psychotherapy. Not everyone responds to treatment in the same way. Prescriptions and dosing may need to be adjusted. No matter how severe a stroke, however, the person does not have to suffer from depression. Treatment can be effective.

Use of herbal supplements of any kind should be discussed with a physician before they are tried. Recently, scientists have discovered that St. John’s wort, an herbal remedy sold over-the-counter and promoted as a treatment for mild depression, can have harmful interactions with some other medications. (See the alert on the NIMH Web site: <http://www.nimh.nih.gov/events/stjohnwort.cfm>.)

Remember, depression is a treatable disorder of the brain. Depression can be treated in addition to whatever other illnesses a person might have, including stroke. If you think you may be depressed or know someone who is, don’t lose hope. Seek help for depression.

## **For more information about stroke, contact:**

National Institute of Neurological Disorders and Stroke (NINDS)

P.O. Box 5801

Bethesda, MD 20824

Toll-free: 1-800-352-9424

Web site: <http://www.ninds.nih.gov>

## References

<sup>1</sup>*Know stroke. Know the signs. Act in time.* National Institute of Neurological Disorders and Stroke, 2001.  
[http://www.ninds.nih.gov/health\\_and\\_medical/pubs/knownowstroke.htm](http://www.ninds.nih.gov/health_and_medical/pubs/knownowstroke.htm)

<sup>2</sup>Depression Guideline Panel. Clinical practice guideline, number 5. *Depression in primary care: volume 1. Detection and diagnosis.* AHCPR Pub. No. 93-0551. Rockville, MD: U.S. Department of Health and Human Services, Agency for Health Care Policy and Research, 1993.

<sup>3</sup>Shaffer D, Fisher P, Dulcan MK, et al. The NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3): description, acceptability, prevalence rates, and performance in the MECA Study. Methods for the Epidemiology of Child and Adolescent Mental Disorders Study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1996; 35(7): 865-77.

<sup>4</sup>Regier DA, Narrow WE, Rae DS, et al. The de facto mental and addictive disorders service system. Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry*, 1993; 50(2): 85-94.

<sup>5</sup>National Advisory Mental Health Council. Health care reform for Americans with severe mental illnesses. *American Journal of Psychiatry*, 1993; 150(10): 1447-65.

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