Staying Sharp

current advances in brain research

Depression

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NRTA: AARP's Educator Community

NRTA (www.aarp.org/nrta) is AARP's educator community. Consistent with AARP's mission, NRTA is dedicated to enhancing the quality of life for all as we age, specifically through a focus on education and learning. NRTA works for positive social change in the field of education and provides members with valuable information, advocacy and service initiatives related to learning and education. NRTA provides national leadership through its network of affiliated retired educators' associations in 50 states and 2,700 communities and through its national office at the AARP headquarters in Washington DC. The partnership with the Dana Alliance for Brain Initiatives, and the Staying Sharp initiative, recognizes and explores the intimate connection between the brain, human behavior and the ability to continue to learn throughout life.

The Dana Alliance for Brain Initiatives

The Dana Alliance for Brain Initiatives (www.dana.org) is a nonprofit organization of more than 200 leading neuroscientists, including ten Nobel laureates. The Dana Alliance is committed to advancing public awareness about the progress and benefits of brain research and to disseminating information on the brain in an understandable and accessible fashion. Supported entirely by the Dana Foundation, the Dana Alliance does not fund research or make grants.

The Dana Foundation is a private philanthropic organization with principal interests in science, health, and education. The Foundation's current areas of emphasis are in immunology and neuroscience research, and in K-12 education, particularly the training of arts educators.

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We all feel blue occasionally, or are faced with events that deeply sadden us. Few people have not felt the pain of a job loss, a strained relationship, or the death of a loved one. Heartache and grief are natural parts of life, but sadness that persists and interferes with regular activities could be depression.

Depression is a serious medical disorder with biological causes, just as high blood pressure or diabetes is. It can be treated effectively in most people. Despite this, many people mistakenly believe that depression is normal for older people, or that little can be done about it. We may think it is a character flaw, a sign of weakness, or something that we should be able to "snap out of."

It's time to dispel these and other myths about depression. While it is true that depression is more common in older people than in the general population, it is not an inevitable part of aging. Nor is it something that we can control at will, or something of which to be ashamed. These persistent biases contribute to the underrecognition and undertreatment of depression, as well as other mental disorders.

Some studies show that less than one-fourth of people with depression are accurately diagnosed and adequately treated. The problem may be even worse among the elderly, often because the recognition of depression is complicated by the coexistence of other medical conditions. Left untreated, depression wreaks havoc on a person's quality of life, may worsen symptoms of other diseases, and even can be fatal. People who have suffered a stroke or heart attack, for example, are more likely to die if they have depression. Moreover, people with depression are more likely to attempt suicide, and suicide is more common in the elderly than in any other age group.

Symptoms of Depression

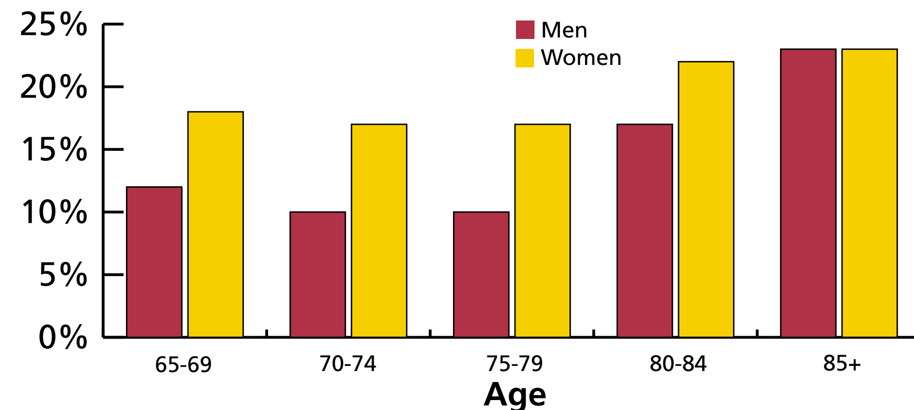
Depression is more than feeling blue. Deep sadness is often compounded by other emotional, mental, and physical symptoms, including those noted below. Symptoms may range from mild to severe, and may wax and wane over time. When symptoms interfere with normal day-to-day activities, depression may be the cause.

- Prolonged sadness or unexplained crying spells
- Significant changes in appetite and sleep patterns
- Irritability, anger, worry, agitation, anxiety, pessimism, indifference
- Loss of energy and enthusiasm, persistent sluggishness
- Feelings of guilt, worthlessness, hopelessness, helplessness
- Inability to concentrate or make decisions
- Loss of enjoyment from once-pleasurable activities
- Withdrawal from social contacts, isolation
- Unexplained aches and pains
- Recurring thoughts of death or suicide
- Memory loss

Source: National Institute of Mental Health

Percentage of persons age 65 or older with severe depressive symptoms, by age group and sex, 1998

Adapted from: Health and Retirement Study



Note: Definition of severe depressive symptoms: Four or more symptoms out of a list of eight depressive symptoms from an abbreviated version of the Center of Epidemiologic Studies Depression Scale.

Causes of Depression

Depression is a brain disorder characterized by changes in certain brain chemicals called neurotransmitters. According to the National Institute of Mental Health, recent brain-imaging research has shown that, in depression, some of the brain circuits responsible for mood, sleep, appetite, thinking, and behavior malfunction, and the regulation of critical neurotransmitters is impaired. Scientists are still trying to determine what causes these chemical imbalances; many experts believe a combination of genetic, psychological, and environmental factors are involved.

The precise contribution of inherited genes is unclear. Some types of depression run in families, suggesting that there is a genetic basis for the disorder. However, many people with depression have no family history, and not everyone with a family history of depression develops the condition.

Environmental factors that might trigger depression include grief from the loss of a loved one, serious financial difficulties, or problems in relationships — all factors that may put an individual under serious stress. (See “What’s New in Brain Research.”) Other factors that are linked to depression include low self-esteem, consistent pessimism, and a tendency to be overwhelmed by stress, attributes that may in reality

Some Tips For Managing Stress

- Mind the basics: eat regular, healthy meals, get enough sleep, and regularly engage in physical activity, such as walking, swimming, biking, etc.
- If something is stressing you, take some kind of action that affords you a modicum of control over the situation, even if only in a small way.
- Recognize that there are some things you cannot control, and focus your attention on those that you can.
- Use relaxation strategies such as deep breathing, meditating, or visualizing a calm, peaceful space.
- Put things in perspective: consider what is most valuable to you, set realistic goals, develop a "roadmap" for achieving them, and take incremental actions toward your goal.
- Changes can be stressful; try to see them as opportunities rather than threats.
- Develop a positive sense of humor, and put some fun back into your life by doing something you really enjoy.
- Carve out personal time – even if it's 15 minutes a day or an hour a week – that you devote solely to restful, rejuvenating activities.

be an early form of depression or may predispose a person to depression.

In addition, many chronic medical conditions, such as stroke, heart disease, or cancer, may set off changes in the brain that make a person more susceptible to depression. (See "Depression and Other Medical Illnesses.") People over 65 are more likely to have one of these conditions, which may contribute to the higher incidence of depression in older people.

What's New in Brain Research

Recent findings in brain research have provided intriguing new evidence for a link between stressful life events — such as the loss of a loved one or prolonged health problems — and the onset of depression. In fact, in older persons, stress is thought to play a bigger role in triggering depression than in other groups, according to the American Association of Geriatric Psychiatry (AAGP).

Some studies have found that, in many depressed people, the brain system that regulates the body's response to stress is overactive. When faced with a "stressor," the brain releases a flood of powerful stress hormones, which help the body respond to the stressful event. If this system is persistently activated, as it may be when stress is chronic, it may begin to malfunction and fail to shut off the cascade of hormones. Stress hormones are known to cause damage to nerve cells in certain brain regions, and some scientists believe that a prolonged "bath" of these hormones may somehow set off brain changes that lead to depression. While brain researchers finish piecing together the puzzling link between stress and depression, one thing seems clear: managing stress throughout life may help prevent damage to the stress-response circuit in the brain.

Getting Help for Depression

The negative thoughts and feelings associated with a depressive disorder, such as exhaustion, worthlessness, helplessness, and hopelessness, can work against getting help. It's important to recognize that these are part of the condition, and, if properly treated, will improve.

If you think you may be depressed, talk to your doctor about your concerns. Ask to be screened for depression, and discuss possible treatment options. Sometimes, what may appear to be symptoms of depression may actually be side effects of medications, or may be caused by another illness. Your doctor will want to rule out other possible causes of symptoms, so be sure to communicate what medications you're taking, what other conditions you have, and what is going on in your life that could be affecting your mood.

To diagnose depression, your doctor should perform:

- A physical examination and laboratory tests to rule out other problems
- An interview to elicit details about symptoms, including:
  - When they started
  - How long they have lasted
  - How severe they are
  - Whether you have had them before (If so, when? Were they treated? With what?)
- A complete personal and family medical history

- A mental status examination, to identify any effects on speech, memory, or thought patterns

Source: National Institute of Mental Health

Keep in mind that depression often is not diagnosed by primary care physicians, especially in older persons, so you may need to seek the help of a specialist. For example, a geriatric psychiatrist is a doctor who is specially trained to recognize and treat mental illnesses in older people.

Types of Depressive Disorders

Recent brain research suggests that depression may be a chronic condition whose symptoms occur to varying degrees throughout life in susceptible persons. Studies have shown, for example, that people who have even one depressive "episode" in their life are at increased risk for developing major depression. Depression in later life may in fact be a recurrence of an earlier episode.

A diagnosis of depression might specify one of two primary types: unipolar depression or bipolar disorder.

Unipolar depression

Can be further differentiated as either major depression or dysthymia:

Major depression may be diagnosed if five or more depressive symptoms (see "Symptoms of Depression") are experienced nearly every day in a two-week period, especially if the symptoms interfere with daily life.

Dysthymia - This is a less severe but no less important form of depression, usually involving two or more symptoms that may not disable, but keep a person from feeling good and functioning well.

Bipolar disorder (manic-depressive illness)

While not as common as unipolar depression, bipolar disorder is just as serious, and is associated with an even higher risk of suicide.

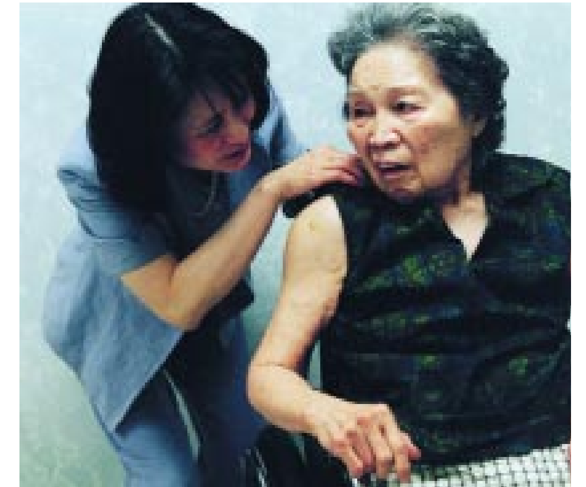
Bipolar disorder is a brain-based mental illness separate from unipolar depression. It involves a cycle of mood changes from severe highs (mania) to severe lows (depression), interspersed with normal periods. Mood changes may happen quickly, sometimes over the course of a single day, but more commonly, bipolar disorder involves intensive periods of mania lasting for several days, followed by lengthy periods of depression. It is not uncommon for sufferers to be free of symptoms for weeks or even years in between episodes.

When in the depressed cycle, an individual may have any or all of the symptoms of a depressive disorder (see “Symptoms of Depression”), and when in the manic cycle, any or all of the symptoms of mania may be evident (see below). If left untreated, a manic episode may worsen into a psychotic state requiring hospitalization.

Genetics play a role in bipolar disorder, which means you can inherit a biological vulnerability to develop it, but not everyone with the vulnerability develops the disorder. People who have a relative with any type of depression are at increased risk for developing bipolar disorder, but many people with the condition have no family history of depression.

Bipolar disorder requires immediate medical attention, preferably by a specialist who is skilled in managing the condition. Treatments are available that can help control the symptoms of mania, and antidepressants and/or psychotherapy may be employed to relieve depressive symptoms.

Symptoms of Mania



- Exaggerated optimism and self-confidence
- Decreased need for sleep without experiencing fatigue
- Grandiose delusions, inflated sense of self-importance
- Excessive irritability, aggressive behavior
- Increased physical and mental activity
- Racing speech, fleeting thoughts, easily distracted
- Impulsiveness or poor judgment
- Reckless behavior, such as spending sprees, rash business decisions, erratic driving, flagrant affairs

Treatment for Depression

Even when depression is recognized, people may not get adequate treatment. However, once the right therapy is found, the vast majority of people with depression can be treated effectively, which improves quality of life and reduces the risk of suicide and premature death from other medical conditions. A combination of antidepressant medications and psychotherapy (talk therapy) is often the most effective approach to treatment, especially in older persons.

Treatment for depression may need to continue for a long time, perhaps even indefinitely, just as treatment for chronic medical conditions such as diabetes or high blood pressure must continue throughout life. People over 75 may respond more slowly to treatment, or be more susceptible to recurring depression, even with treatment. Regular and ongoing consultations with a physician experienced in treating depression in the elderly is critical, so that treatment

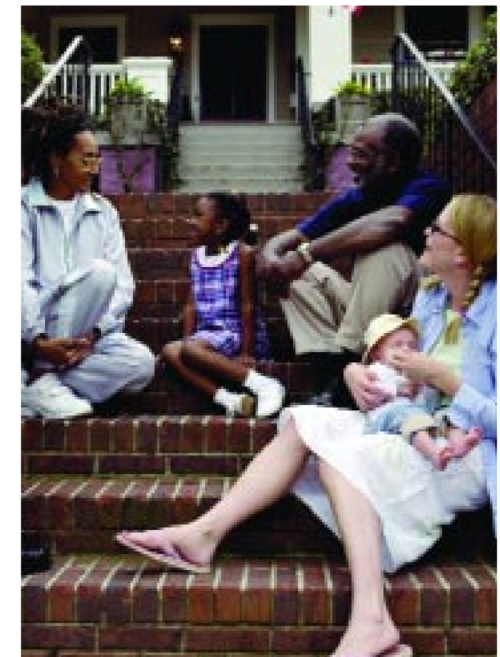
adjustments may be made as necessary.

Current antidepressants influence the function of neurotransmitters. Three major types of antidepressants are available: tricyclic antidepressants, monoamine oxidase inhibitors, and selective serotonin reuptake inhibitors (SSRIs). Developed more recently, SSRIs tend to have fewer side effects than the older drugs. Different people respond differently to antidepressants, and finding the one that provides effective relief of symptoms is often a process of trial and error. Sometimes the dose may need to be adjusted, or a combination of medications may be needed. The full effect of an antidepressant may not occur for three to four weeks, sometimes longer. If improvement is not seen after several weeks on one medication, another one may be tried, on the doctor's recommendation.

Psychotherapy is an important part of depression treatment, particularly in older people. The most effective types of psychotherapy for depression include Cognitive-Behavioral Therapy (CBT) and Interpersonal Therapy (IPT). Administered by a psychiatric professional (usually a psychiatrist or licensed psychotherapist), these talk therapies work to help a person develop strategies for coping with day-to-day challenges, learn to counter negative thoughts and behaviors that accompany depression, and resolve any relationship conflicts that may be contributing to depression. People with short-term depression, such as that associated with medical illness, trauma, or loss of a loved one, may benefit from shorter courses of psychotherapy.

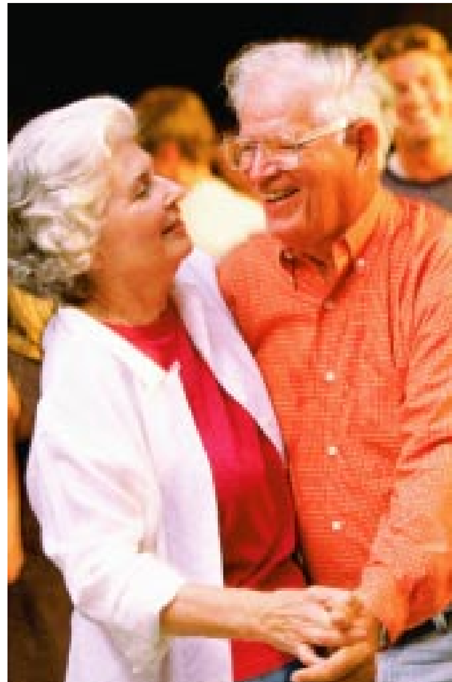
Electroconvulsive Therapy (ECT) remains one of the most effective, yet most stigmatized treatments for depression. ECT stimulates specific parts of the brain with brief low-level electrical impulses, which are not consciously felt by the patient. Several sessions of ECT may be necessary for full effect. Modern advances in ECT techniques have made this a much safer treatment compared to earlier decades. While side effects such as memory loss and other cognitive problems are not uncommon, they are typically short-lived.

With so many effective treatments available, there is no reason to let depression rob your life of joy. Getting the right treatment is critical, and there can be comfort in knowing that it is available. The first step is to take action: see your doctor, ask about treatment options, and follow the therapy prescribed.



Living With Depression

- Meet with your doctor regularly for ongoing assessments of your health and progress in treating depressive symptoms.
- Set realistic daily goals for yourself, and prioritize your activities.
- Break down large tasks into smaller ones that can be accomplished more readily.
- Don't isolate yourself; get out and socialize with other people.
- Talk with someone about your feelings, whether a friend or family member, doctor, professional counselor, or clergy member.
- Try to continue participating in activities that you have enjoyed.
- Exercise regularly; studies show it improves mood and overall health.
- Give yourself time; even with treatment, your mood may not improve immediately, but you should notice improvement within a few weeks.



- If you can, postpone important decisions until you're feeling better, or discuss matters with someone who might have an objective view.
- Don't be afraid to ask for help, and accept help that is offered.

Source: National Institute of Mental Health

If You Suspect Depression in Someone Else…

Many times, depression is first recognized by others — people close to the person, who notice a change in mood or behaviors. Family support can make a huge difference in helping people with depression

get the treatment they need. If you suspect that someone you care about may be depressed, talk to him or her about it. Gently ask questions, listen carefully, and watch for telltale signs, such as decreased interest in favorite activities. Recognize that it may be easier for some people to acknowledge physical changes, such as sleep difficulties or loss of appetite, than to talk about feelings such as worthlessness or hopelessness. Some studies have suggested that men may have more difficulties than women in talking about such problems.

Other suggestions:

- Help the person get evaluated and treated; be prepared to accompany him/her to the doctor if necessary.
- Encourage the individual to follow treatment regimens properly, or to seek different treatment if no improvement is seen.
- Offer emotional support (understanding, patience, affection, and

encouragement).

- Do not ignore remarks about suicide; report them to the person's doctor or encourage the person to seek help immediately from a doctor or suicide prevention program.
- Reach out to the person: invite him/her to do things; stay in touch with visits and phone calls, and be a good listener.
- Be gentle but persistent in offering help and companionship; people with depression may avoid other people or resist offers of help.
- Encourage the person gently to become involved in activities he/she once enjoyed.
- Do what you can to minimize demands on the person, so that he/she does not feel overwhelmed or inadequate.

Conclusion

Depression is not an inevitable part of growing old. It is a serious medical condition resulting from an imbalance in brain chemicals, which may be triggered by a number of factors — genetic, psychological, and environmental. Know the warning signs for depression, and if you notice them in yourself or others, seek medical attention. There are many treatment options and many ways to get help and support for coping with depression (see Resources, next page). The good news from brain research is that the vast majority of people with depression can be treated effectively, often with a combination of medications and psychotherapy. Don't let depression steal the joy from your life, or the life of someone close to you, especially not at the very time you should be enjoying life to the fullest.

Resources

AARP
www.aarp.org

Depression Awareness Recognition and Treatment Education Program (D/ART)
Tel: (800) 421-4211 (Free Brochures)

Depression and Related Affective Disorders Association (DRADA)
www.med.jhu.edu/drada

National Alliance for the Mentally Ill
Tel: (703) 524-7600; (800) 950-NAMI; Fax: (703) 524 9094
www.nami.org

National Alliance for Research on Schizophrenia and Depression (NARSAD)
Tel: (800) 829-8289; Fax: (516) 487-6930
www.mhsource.com/narsad.html

National Depressive and Manic-Depressive Association
Tel: (800) 826-3632; Fax: (312) 642-7243
www.ndmda.org

National Foundation for Depressive Illness
Tel: (800) 239-1265
www.depression.org

National Institute of Mental Health
Tel: (301) 443-4513; Fax: (301) 443-4279
Depression brochures: (800) 421-4211; TTY: (301) 443-8431;
FAX4U: (301) 443-5158
www.nimh.nih.gov

National Mental Health Association
Tel: (703) 684-7722; (800) 969-6642
FAX: (703) 684-5968
TTY: (800) 433-5959
www.nmha.org

On Our Own
Tel: (410) 444-4500; Fax: (410) 444-8755

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