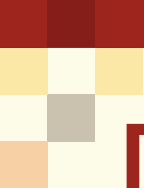


National Institute of Mental Health

Depression and Chronic Pain



NIMH
National Institute
of Mental Health



Depression not only affects
your brain and behavior—

it affects your entire body.

Depression has been linked with other health problems, including chronic pain. Dealing with more than one health problem at a time can be difficult, so proper treatment is important.



What is depression?

Major depressive disorder, or depression, is a serious mental illness. Depression interferes with your daily life and routine and reduces your quality of life. About 6.7 percent of U.S. adults ages 18 and older have depression.¹

Signs and Symptoms of Depression

- Ongoing sad, anxious, or empty feelings
- Feeling hopeless
- Feeling guilty, worthless, or helpless
- Feeling irritable or restless
- Loss of interest in activities or hobbies once enjoyable, including sex
- Feeling tired all the time
- Difficulty concentrating, remembering details, or making decisions
- Difficulty falling asleep or staying asleep, a condition called insomnia, or sleeping all the time
- Overeating or loss of appetite
- Thoughts of death and suicide or suicide attempts
- Ongoing aches and pains, headaches, cramps, or digestive problems that do not ease with treatment.

For more information, see the NIMH booklet on Depression at <http://www.nimh.nih.gov/health/publications/depression/index.shtml>.

What is chronic pain?

Chronic pain is pain that lasts for weeks, months, or even years. It often does not ease with regular pain medication.² Chronic pain can have a distinct cause, such as a temporary injury or infection or a long-term disease. But some chronic pain has no obvious cause.³ Like depression, chronic pain can cause problems with sleep and daily activities, reducing your quality of life.²

For more information on chronic pain see the National Institute on Neurological Disorders and Stroke website at http://www.ninds.nih.gov/disorders/chronic_pain/chronic_pain.htm.

How are depression and chronic pain linked?

Scientists don't yet know how depression and chronic pain are linked, but the illnesses are known to occur together. Chronic pain can worsen depression symptoms and is a risk factor for suicide in people who are depressed.²

Bodily aches and pains are a common symptom of depression. Studies show that people with more severe depression feel more intense pain. According to recent research, people with depression have higher than normal levels of proteins called cytokines.⁴ Cytokines send messages to cells that affect how the immune system responds to infection and disease, including the strength and length of the response. In this way, cytokines can trigger pain by promoting inflammation,⁵ which is the body's response to infection or injury. Inflammation helps protect the body by destroying, removing, or isolating the infected or injured area. In addition to pain, signs of inflammation include swelling, redness, heat, and sometimes loss of function.

Many studies are finding that inflammation may be a link between depression and illnesses that often occur with depression. Further research may help doctors and scientists better understand this connection and find better ways to diagnose and treat depression and other illnesses.

One disorder that has been shown to occur with depression is fibromyalgia.⁶ Fibromyalgia causes chronic, widespread muscle pain, tiredness, and multiple tender points—places on the body that hurt in response to light pressure.⁷ People with fibromyalgia are more likely to have depression and other mental illnesses than the general population. Studies have shown that depression and fibromyalgia share risk factors⁶ and treatments.⁷

How is depression treated in people who have chronic pain?

Depression is diagnosed and treated by a health care provider. Treating depression can help you manage your chronic pain and improve your overall health. Recovery from depression takes time but treatments are effective.

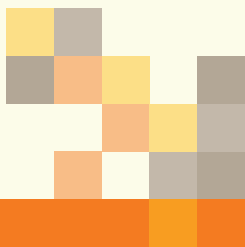
At present, the most common treatments for depression include:

- Cognitive behavioral therapy (CBT), a type of psychotherapy, or talk therapy, that helps people change negative thinking styles and behaviors that may contribute to their depression
- Selective serotonin reuptake inhibitor (SSRI), a type of antidepressant medication that includes citalopram (Celexa), sertraline (Zoloft), and fluoxetine (Prozac)
- Serotonin and norepinephrine reuptake inhibitor (SNRI), a type of antidepressant medication similar to SSRI that includes venlafaxine (Effexor) and duloxetine (Cymbalta).

While currently available depression treatments are generally well tolerated and safe, talk with your health care provider about side effects, possible drug interactions, and other treatment options. For the latest information on medications, visit the U.S. Food and Drug Administration website at <http://www.fda.gov>. Not everyone responds to treatment the same way. Medications can take several weeks to work, may need to be combined with ongoing talk therapy, or may need to be changed or adjusted to minimize side effects and achieve the best results.

People living with chronic pain may be able to manage their symptoms through lifestyle changes. For example, regular aerobic exercise may help reduce some symptoms of chronic pain. Exercise may also boost your mood and help treat your depression. Talk therapy may also be helpful in treating your chronic pain.

More information about depression treatments can be found on the NIMH website at <http://www.nimh.nih.gov/health/publications/depression/how-is-depression-detected-and-treated.shtml>. If you think you are depressed or know someone who is, don't lose hope. Seek help for depression.



For More Information on Depression

Visit the National Library of Medicine's

MedlinePlus **<http://medlineplus.gov>**

En Español **<http://medlineplus.gov/spanish>**

For information on clinical trials

<http://www.nimh.nih.gov/health/trials/index.shtml>

National Library of Medicine clinical trials database

<http://www.clinicaltrials.gov>

Information from NIMH is available in multiple formats. You can browse online, download documents in PDF, and order materials through the mail. Check the NIMH website at

<http://www.nimh.nih.gov> for the latest information on

this topic and to order publications. If you do not have

Internet access please contact the NIMH Information

Resource Center at the numbers listed below.

National Institute of Mental Health

Science Writing, Press & Dissemination Branch

6001 Executive Boulevard

Room 8184, MSC 9663

Bethesda, MD 20892-9663

Phone: 301-443-4513 or

1-866-615-NIMH (6464) toll-free

TTY: 301-443-8431 or

1-866-415-8051 toll-free

FAX: 301-443-4279

E-mail: **nimhinfo@nih.gov**

Website: **<http://www.nimh.nih.gov>**

Citations

1. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005 Jun; 62(6):617–27.
2. *An Update of NIH Pain Research and Related Program Initiatives: Statement for the Record Before the Subcommittee on Health, Committee on Energy and Commerce, United States House of Representatives*, (December 8, 2005) (testimony of the National Institutes of Health, United States Department of Health and Human Services). <http://www.hhs.gov/asl/testify/t051208a.html>. Accessed September 21, 2010.
3. National Institute of Neurological Disorders and Stroke. NINDS chronic pain information page. http://www.ninds.nih.gov/disorders/chronic_pain/chronic_pain.htm. Updated July 24, 2010. Accessed September 21, 2010.
4. Hartman JM, Berger A, Baker K, Bolle J, Handel D, Mannes A, Pereira D, St Germain D, Ronsaville D, Sonbolian N, Torvik S, Calis KA, Phillips TM, Cizza G. Quality of life and pain in premenopausal women with major depressive disorder: the POWER Study. *Health and Quality of Life Outcomes*. 2006; 4:2.
5. National Institute of Neurological Disorders and Stroke. Pain: hope through research. http://www.ninds.nih.gov/disorders/chronic_pain/detail_chronic_pain.htm#140523084. Updated July 24, 2010. Accessed September 21, 2010.
6. Staud R. Biology and therapy of fibromyalgia: pain in fibromyalgia syndrome. *Arthritis Research & Therapy*. 2006; 8(3):208.
7. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Fibromyalgia. http://www.niams.nih.gov/Health_Info/Fibromyalgia/default.asp. Published April 2009. Accessed September 21, 2010.

Reprints

This publication is in the public domain and may be reproduced or copied without permission from NIMH. We encourage you to reproduce it and use it in your efforts to improve public health. Citation of the National Institute of Mental Health as a source is appreciated. However, using government materials inappropriately can raise legal or ethical concerns, so we ask you to use these guidelines:

- NIMH does not endorse or recommend any commercial products, processes, or services, and our publications may not be used for advertising or endorsement purposes.
- NIMH does not provide specific medical advice or treatment recommendations or referrals; our materials may not be used in a manner that has the appearance of such information.
- NIMH requests that non-Federal organizations not alter our publications in ways that will jeopardize the integrity and “brand” when using the publication.
- Addition of non-Federal Government logos and website links may not have the appearance of NIMH endorsement of any specific commercial products or services or medical treatments or services.

If you have questions regarding these guidelines and use of NIMH publications, please contact the NIMH Information Resource Center at 1-866-615-6464 or e-mail at nimhinfo@nih.gov.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Institute of Mental Health
NIH Publication No. 11-7744