For More Information on Depression

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Citations

- 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.
- 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.
- 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.
- 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.
- 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.
- Staud R. Biology and therapy of fibromyalgia: pain in fibromyalgia syndrome. *Arthritis Research & Therapy*. 2006; 8(3):208.
- 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.

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Depression and Chronic Pain



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-depressiondetected-and-treated.shtml. If you think you are depressed or know someone who is, don't lose hope. Seek help for depression.