

Fibromyalgia (fm) symptoms, causes and treatments



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Fibromyalgia

Fibromyalgia (FM) is a condition of unknown etiology, characterized by extensive pain, atypical pain processing, sleep disruption, fatigue, and often psychological distress. People with fibromyalgia may also have added indications, such as morning rigidity, tingling or numbness of the hands and feet, headaches, migraines, irritable bowel syndrome, sleep disorders, cognitive problems, problems with thinking and memory (often called fibro-fog), and additional pain syndromes (CDC, 2010).

The American College of Rheumatology (ACR) 2010 criteria is used for clinical diagnosis and severity classification of fibromyalgia (CDC, 2010). The diagnosis is centered on:

1. Widespread pain index (WPI) of greater than or equal to seven and symptom severity scale (SS) of greater than or equal to five, or WPI of three to six and SS of greater than nine (CDC, 2010).
2. Symptoms have been existent at a similar level for at least three months (CDC, 2010)
3. The patient does not have another disorder that would otherwise explain the pain (CDC, 2010).
4. Fibromyalgia often occurs with other rheumatic conditions such as rheumatoid arthritis, up to 25 - 65%, systemic lupus erythematosus, and ankylosing spondylitis (CDC, 2010).

The tender point test is replaced with widespread pain index and a system severity scale. The widespread pain index score is determined by counting

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the number of areas on the body where the patient has had pain in the past week. The checklist includes nineteen areas of the body (Rush University Medical Center, 2010).

The symptoms severity score is determined by rating on a scale of zero to three, three being the most prevalent, the severity of three collective symptoms: fatigue, waking tired and cognitive symptoms (Rush University Medical Center, 2010). An additional three points can be added to account for additional symptoms, such as numbness, dizziness, nausea, depression, or irritable bowel syndrome. The final score is between zero and twelve (Rush University Medical Center, 2010).

To meet the criteria for a diagnosis of fibromyalgia, a patient would have seven or more pain areas and a symptoms severity score of five or more, or three to six pain areas and a symptoms severity score of nine or more (Rush University Medical Center, 2010).

Some criteria remain untouched. The symptoms must have been existent for a minimum of three months, and the patient does not have another disorder that would explain the pain (Rush University Medical Center, 2010).

To develop and test the new criteria, researchers implemented a multi-center study of formerly diagnosed fibromyalgia patients and a group of patients with rheumatic non-inflammatory disorders using a physician physical and interview examination (Rush University Medical Center, 2010).

The pervasiveness of fibromyalgia affects an estimated five million adults, with more women than men affected (CDC, 2010). Most people with

fibromyalgia are diagnosed during middle age, and the incidence increases with age. Although the rates are higher in women, men and children can have the disorder. Women with the disorder that are hospitalized are ten times more likely to return to work, but four times less likely retain work at one year after hospitalization. It is shown that adults with fibromyalgia average around seventeen days of missed work per year compared to six days for those without the disorder (CDC, 2010).

The causes and/or risk factors for fibromyalgia are associated with stressful or traumatic events, such as car accidents, post-traumatic stress disorders, repetitive injuries, illnesses (such as viral infections), certain diseases (such as Rheumatoid arthritis), chronic fatigue syndrome, lupus, genetic predispositions, and obesity (CDC, 2010). People with fibromyalgia respond strongly to things that other people would not find uncomfortable by exhibiting an abnormal pain perception. The ACR recommends a multi-disciplinary treatment plan including screening and treatment for depression, as evidence indicates that depression is a major occurrence with fibromyalgia (CDC, 2010). The recommendation for treatment includes pharmacotherapy, aerobic exercise and muscle strengthening and, education and relaxation therapy (CDC, 2010).

Many hormonal, metabolic, and brain chemical deviations have been indicated in studies of fibromyalgia (CDC, 2010). Variations seem to occur in some brain chemicals, although no regular pattern was identified as relevant in most patients with the disorder. Fibromyalgia may be the result of the properties of pain and stress on the central nervous system that leads to alterations in the brain, rather than a brain disorder itself (CDC, 2010).

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Researchers are concerned with serotonin and the effects on fibromyalgia. Serotonin facilitates feelings of well-being, adjusts pain levels and promotes deep sleep (CDC, 2010). Low levels of serotonin have been noted in patients with fibromyalgia. Research has also found abnormalities in the hypothalamus-pituitary-adrenal gland axis (HPA axis). The HPA axis regulates sleep, stress response, and depression. Changes in the HPA axis may lead to lower levels of stress hormones norepinephrine and cortisol. Lower levels of stress hormones lead to diminished responses to psychological or physical stress (CDC, 2010).

According to the ACR, people with fibromyalgia can have irregular levels of substance P in their spinal fluid (FDA. gov). This substance P helps convey and intensify pain signals to and from the brain. Researchers are considering the function of substance P and other neurotransmitters, and studying why people with fibromyalgia have amplified sensitivity to pain and whether there is a gene or genes that cause a person to be more prone to have it (FDA. gov).

Many steps have been taken in research in supplying patients with opportunities to understand and address the symptoms of fibromyalgia and quality of life issues. Research continually indicates that a multi-disciplinary approach is the most helpful for the physician and the patient (National Fibromyalgia Research Association).

The examination the physician completes when considering a diagnosis of fibromyalgia should include a basic neurologic examination, a referral to a

neurologist, and MRI if the exam indicates minimal deficits (National Fibromyalgia Research Association).

Exercise is important for fibromyalgia patients. It has an influence on the quality of sleep and helps to keep unaffected muscles strong. Aerobic exercise, strengthening and relaxation assist in decreasing the effects of the disorder (National Fibromyalgia Research Association).

There is no one medication that works for all patients (National Fibromyalgia Research Association). Medical professionals and patients must work together to determine which medication or combination of medications are most effective for the individual (National Fibromyalgia Research Association).

People with fibromyalgia are normally treated with pain medications, antidepressants, muscle relaxants, anticonvulsants, and sleep aids (FDA.gov). In June 2007, Lyrica (Pregabalin) became the first FDA approved drug for the specific treatment of fibromyalgia; one year later, June 2008, Cymbalta (duloxetine hydrochloride) became the second, and in January 2009, Savella (milnacipran HCL) became the third (FDA.gov).

Lyrica, Cymbalta, and Savella reduce pain and improve function in some people with fibromyalgia (FDA.gov). While people with fibromyalgia suffer pain differently from other people, the mechanism by which these drugs yield their result is unknown. There is information proposing that these drugs influence the release of neurotransmitters in the brain (FDA.gov).

Lyrica was previously approved to treat seizures, as well as pain associated with damaged nerves in diabetic peripheral neuropathy and those who develop pain from the shingles rash (FDA. gov). Side effects of Lyrica include drowsiness, dizziness, blurred vision, weight gain, swelling of the hands and feet, dry mouth, and difficulty concentrating (FDA. gov).

Cymbalta was previously approved to treat depression, anxiety, and diabetic peripheral neuropathy (FDA. gov). Cymbalta side effects include nausea, dry mouth, somnolence, constipation, decreased appetite, and increased sweating. Cymbalta may increase suicidal thinking and the risk of suicidal actions. It may also increase depression in some people (FDA. gov).

Savella is the first drug introduced primarily for the treatment of fibromyalgia (FDA. gov). It is not used to treat depression in the United States, but acts like anti- depressants that are used to treat depression and other mental disorders (FDA. gov).

Lyrica and Cymbalta are approved for the use in adults eighteen years and older. The drug companies have agreed to study their drugs in children and breastfeeding women (FDA. gov). Other medications used to treat fibromyalgia are pramipexole, tramadol, pindolol, ketamine, sodium oxybate, and gabapentin (National Fibromyalgia Research Association).

Many patients achieve pain relief from complementary and alternative medications (CAM). Acupuncture, biofeedback, and massage are popular treatment alternatives. Herbal supplements and medication may also provide chronic pain relief and relieve fatigue (FDA. gov).

Much of the research on complementary health approaches for fibromyalgia is still preliminary, and evidence of effectiveness is limited. Some studies have shown that practices such as TaiChi, gi-gong, and massage therapy may help with fibromyalgia symptoms. (Kowlowitz E. J.) Aerobic and strength-training exercises have been associated with important improvements in pain levels, tender point counts, and sleep disturbances. Maintenance of exercise programs indicates that compliance is a problem with patients. Discussion on strategies on improving compliance can be discussed with the patients (Millea & Holloway, 2010).

A considerable meta-analysis of studies using acupuncture in the treatment of fibromyalgia validates the empiric findings of medical acupuncturists that acupuncture is extremely useful adjunctive treatment for many patients. Acupuncture is not curative but enhances the patient's quality of life (Millea & Holloway, 2010).

Cognitive behavioral training has shown improvement in some patients. The training of relaxation response training and movement therapy was found to be effective in patients with fibromyalgia. Training in coping skills was shown to be more effective than physical fitness, but evidence indicates that combining the different types of therapy may be more effective than one therapy alone (Millea & Holloway, 2010).

Myofascial pain syndrome is a condition commonly found in patients with fibromyalgia. It is a condition in which fascial limitation and trigger points cause extensive pain. A 2010 review suggests that irritation and defectively working fascia encompassing muscle cells were causing the " all-over" pain

of fibromyalgia and may be due to a dysfunctional healing response (Lipton, 2010).

Myofascial release on trigger point's method is a massage technique in which the therapist uses gentle, sustained pressure in the problem areas to release adhesions and smooth out the fascia (Lipton, 2010). Multiple studies show that the Myofascial release can result in decreased pain, better posture, reduced symptoms, increased range of motion, and improved quality of life (Lipton, 2010).

Many patients benefit from discussing their day to day lives with others who are also affected by fibromyalgia. Support groups may be located through the local chapter of the Arthritis Foundation (Millea & Holloway, 2010).

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