

# Fibromyalgia

## Fibromyalgia

### What is Fibromyalgia?

Fibromyalgia, also known as a fibromyalgia syndrome (FMS), is a neurological disorder characterized by generalized musculoskeletal pain, accompanied by muscle stiffness and tenderness.



### What Causes Fibromyalgia?

The etiology of fibromyalgia remains unknown. Current researches suggest the crucial role of multiple factors in the etiology and pathogenesis of fibromyalgia.

- Central and autonomic nervous systems, neuroendocrine System. According to the literature, the chemical imbalance in the brain results in amplified perception of the pain due to impaired pain processing in central nervous system.
- Immune system and genetics. Researchers identified inherited mutations in genes through a novel genetic analysis that cause overproduction of specific immune substances which has an impact on immune system, supporting immune involvement in
- Psychiatric aspects. Recent evidence have shown that psychiatric and psychological problems have a significant impact on the course and severity of fibromyalgia.<sup>6</sup>

Depression, anxiety, panic disorders, posttraumatic stress, dysthymia are the most common disorders that are thought to contribute to the condition.

### **What are the Risk Factors?**

A number of factors increase the risk of developing fibromyalgia. Possible risk factors for this condition include:

- Age; Most often, fibromyalgia develops between the ages of 20 and 50.
- Gender; Women are more prone to develop fibromyalgia than man.
- High body mass index;
- Heredity;
- Sleep disorders; People with sleep problems are more prone to have fibromyalgia. Disturbed sleep and chronic pain may worsen each other and become a vicious cycle.
- Smoking;
- Other diseases; Several conditions are often associated with this condition. Generally, rheumatological disorders, such as rheumatoid arthritis, lupus, osteoarthritis and others increase the risk of developing fibromyalgia.

### **What are the Possible Triggers?**

In many cases, fibromyalgia appears to be induced by non-specific trigger factors. Generally, physically or psychologically stressful events may reveal as trigger factors. These may include:

- Physical trauma, injury
- Infections
- Vaccinations
- Chemical substances
- Emotional or physical abuse
- Emotional or social stress
- Childbirth

### **What are the Symptoms of Fibromyalgia?**

Fibromyalgia affects multiple body systems and may manifest by various symptoms. Symptoms may include:

- Widespread pain
- Morning stiffness
- Muscle spasms
- Muscle weakness
- Cognitive impairment such as forgetfulness, confusion, trouble concentration, memory problems, etc.
- Sleep problems such as light sleep, obstructive sleep apnea, insomnia, etc.
- Headaches and migraines
- Sensitivity to temperature, light, noise, smells
- Dyspeptic disturbances such as bloating, nausea, abdominal cramps, diarrhea, constipation, indigestion, frequent passing of gas, difficulty swallowing, gastroesophageal reflux disease, irritable bowel syndrome, etc.

- Dysuric disturbances such as frequent urination, pain during urination, etc.
- Mood swings, irritability
- Painful menstrual periods, pelvic pain, vaginal pain and premature menopause

## **How is Fibromyalgia Diagnosed?**

No specific diagnostic test is available for this condition. A fibromyalgia diagnosis can be made based on patient history, symptoms and physical examination.<sup>15</sup> Some tests may be needed to exclude other disorders that have similar clinical characteristics with fibromyalgia. According to American College of Rheumatology, fibromyalgia may be diagnosed if the following diagnostic criteria are met:

- Widespread pain and other symptoms present for at least 3 months
- Generalized pain present in at least 4 of 5 regions
- Valid diagnosis of fibromyalgia that does not exclude the presence of other clinically important illnesses

## **How is Fibromyalgia Treated?**

Fibromyalgia treatment aims to relieve the symptoms of the disorder, improve general health and restore health related quality of life. In general, the treatment should be multifaceted and may involve:

- Over-the counter and prescription drugs ;  
Pain is the primary focus of the treatment. The Food and Drug Administration has approved pregabalin, duloxetine, and milnacipran to help control pain levels. For treating diverse range of symptoms painkillers, anticonvulsants, muscle relaxants, antidepressants, antipsychotics and medicines for sleep may also be recommended.
- Therapies
  - Physical therapy  
American Physical Therapy Association suggests that regular physical therapy can ease deep muscle pain, improve muscle flexibility and function, reduce muscle tension, build strength and restore overall health through maintaining proper posture, performing stretching and relaxation exercises, aerobic and pain relief exercises, deep tissues massages, transcutaneous electrical nerve stimulation (TENS units) and ultrasound procedures.
  - Cognitive behavioral therapy  
Cognitive behavioral therapy is a type of psychological treatment that is focused on modifying pain-related behavior and improving coping strategies by developing symptom reduction skills and techniques that helps to relief pain.
  - Psychotherapy  
Psychotherapy is an effective therapeutic method that aims to help individuals in managing their emotions and thoughts to better control pain and achieve psychological well-being.
  - Occupational therapy  
Occupational therapy provides tools and resources that help to adapt to the

challenges of a life with fibromyalgia through mental health therapy, pain management, sleep hygiene, occupational training, problem solving and goal setting.

- Lifestyle changes
  - Exercise
  - Diet
  - Stress reduction
  - No smoking
- Complementary and alternative medicine
  - Acupuncture
  - Massage therapy
  - Chiropractic therapy
  - Meditation
  - Biofeedback
  - Yoga, tai chi and qigong
  - Aromatherapy
  - Cupping therapy
  - Progressive muscle relaxation (PMR) technique
  - Deep breathing exercises
- Complementary medications
  - Medical marijuana

Medical marijuana or medical cannabis is a widespread plant that is well known for its therapeutic effects. The active component is tetrahydrocannabinol (THC). Medical marijuana can have significantly favorable effect on mental and physical health in people with fibromyalgia. The main health effects are pain relief, reduction in muscle stiffness, enhance in muscle relaxation, sleep and mood improvements. Cannabinoids are used for medical purposes for relieving symptoms such as pain, fatigue, nausea, vomiting, weight loss in patients with chronic disorders, such as fibromyalgia.
- Herbal and Dietary Supplements

Although many treatment options are available, patient self-care is vital in improving fibromyalgia symptoms. Healthy lifestyle along with medical treatment can reduce pain, improve sleep quality and help individuals to cope better with fibromyalgia and improve quality of life. Further investigation has provided new evidence about the mechanisms that causes fibromyalgia symptoms that is already helping to design better and more effective ways to manage the disease.