

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

Fibromyalgia

Fibromyalgia (FM) is a condition that causes pain and tenderness all over the body, sleep problems, stiffness, fatigue, and often emotional and mental distress.¹ Other symptoms can include problems with thinking and concentration, irritable bowel syndrome, or numbness and tingling in the hands and feet. Those with FM may be more sensitive to pain compared to those who do not have FM, a condition called abnormal pain perception processing.^{2,3} FM can affect people of all ages, but the likelihood of being diagnosed with FM increases with age, and women are more likely to have FM than men.¹ The cause of FM is unclear, but researchers think that certain conditions may contribute to its onset within the nervous system. Some risk factors for FM include trauma, repetitive injuries, illness, family history, and obesity. Sometimes, FM can develop with no risk factors present, and researchers think genes may play a role. There is no cure for FM, but symptoms can be treated with medications or non-drug therapies.³

TODAY

Women are **twice as likely** to have FM than men.² Approximately **6 to 12 million** people in the U.S. are living with FM.⁴ Around **210 million** people worldwide are affected by FM.⁵

Research Delivers Solutions

A key mechanism that might be behind FM is central pain sensitization. A study in 2019 tested 50 FM patients, 30 rheumatoid arthritis patients, and 50 other individuals to determine their responses to low-intensity painful pressure stimuli. These results provide evidence of **slowly repeated evoked pain (SREP)** responses as a marker of pain sensitization in FM; this may be useful for improving FM diagnostic accuracy.⁹

Duloxetine and **pregabalin** are some of the most widely used medications for treating pain symptoms in FM patients. However, there is little evidence comparing the two medications. Researchers found that patients' **Widespread Pain Index (WPI)** scores – a quantification of bodily pain on a 0-19 scale – for those treated with duloxetine were more improved compared to patients treated with pregabalin. These findings may be useful in helping FM patients choose the best treatment option for their symptoms.¹⁰

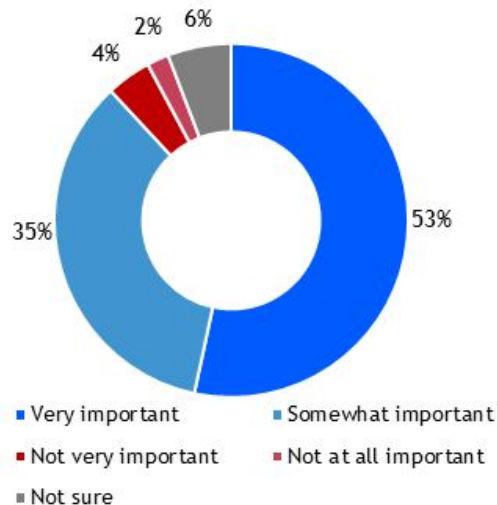
Diagnosis of FM is a challenge due to the difficulty of measuring pain. In one 2019 study, researchers tested blood samples from 50 FM patients using **vibrational spectroscopy**, which measures the energy levels of molecules in the blood samples. This work could lead to identification of a specific protein or set of molecules that is linked to FM, which not only would help diagnose patients, but also could lead to more directed treatments.⁸

COST^{6,7}

\$12-\$14 billion per year: The annual cost of FM in the U.S.

\$100-\$1,000 per month: A 2007 study found that 34% of fibromyalgia patients spend \$100-\$1,000 per month out-of-pocket to treat FM.

How important is it for the President and Congress to assign a high priority to ensuring faster medical progress?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2020

Fibromyalgia

Then. Now. Imagine.

THEN

Muscle pain is a key symptom of FM, so in the 1980s, scientists mistakenly looked for the source of the disease in the muscles.^{11, 12}

NOW

While the cause of FM is still unknown, new evidence points to neuroinflammation, or inflamed or irritated pain nerves, as a likely suspect of FM.¹²

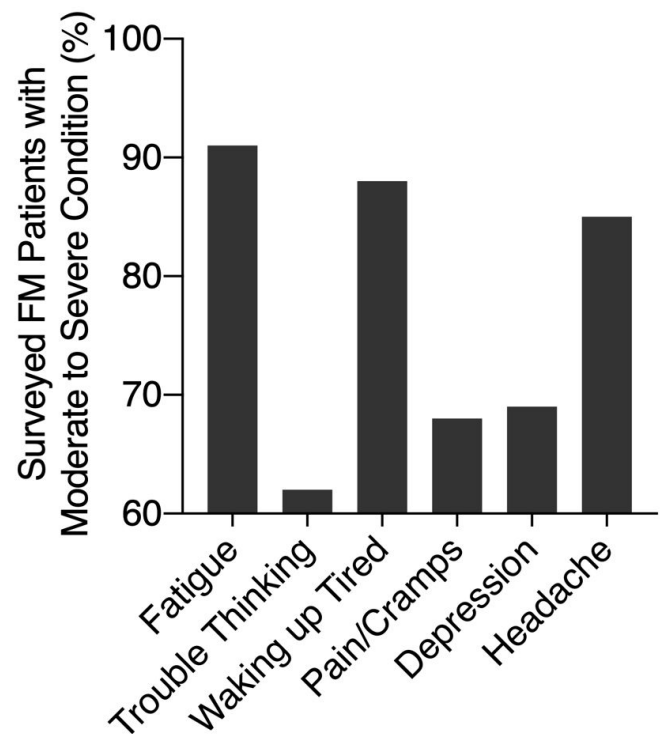
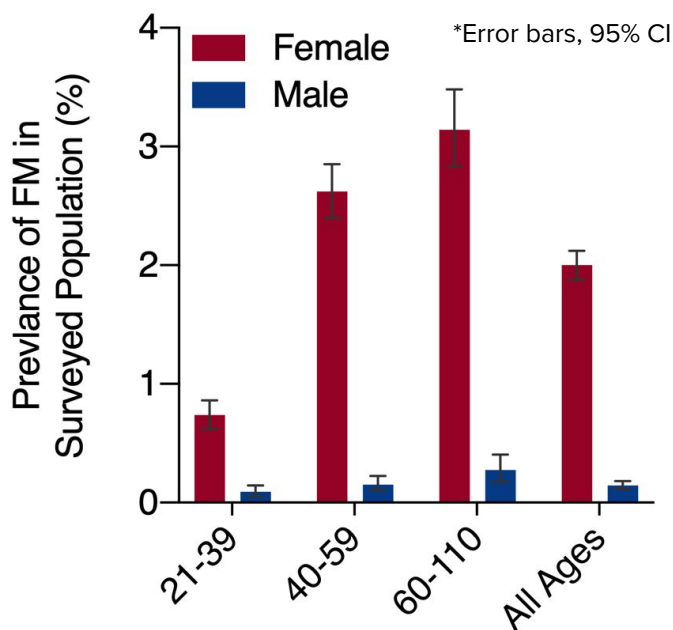
IMAGINE

A cure.

Spotlight - Women in Pain

In 2011, the Institute of Medicine — now called the National Academy of Medicine — published a report on the public health impact of chronic pain. It found that not only did women appear to suffer more from pain, but that women's reports of pain were more likely to be dismissed compared to men's reports of pain.¹³ In fact, women with FM typically face long periods of misdiagnosis, inadequate treatment, and referral delays before they receive the appropriate care for their pain.¹⁴ This health disparity highlights a gap in the knowledge about sex- and gender-related differences in the body and how that gap translates to practice.

Cases of FM from the Rochester Epidemiology Project¹⁵



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