

Fibromyalgia and Diet

The word fibromyalgia is derived from the Greek “algia,” which means pain; “myo,” indicating muscle; and “fibro,” indicating the connective tissue in tendons and ligaments. Muscles, however, are not involved, as was previously thought when the syndrome was named. Fibromyalgia syndrome is actually caused by a biochemical imbalance.

Once thought as a psychological disorder, fibromyalgia is actually a true physical condition. However, old and incorrect beliefs about this syndrome still flourish. Since 1987, the American Medical Association has recognized Fibromyalgia Syndrome as a true physical illness. The World Health Organization, the American College of Rheumatology, and the National Institutes of Health also have declared fibromyalgia syndrome as a clinical syndrome in need of continued research.

Fibromyalgia syndrome is best described as a disturbance in pain perception. Sensations that are described as ordinary are described as painful by people with fibromyalgia, with amplified pain. The syndrome is caused by a disturbance in the central nervous system.

Fibromyalgia syndrome often is brought on by a traumatic accident, long-term physical or emotional stress, or a bout of serious illness. Hypersensitivity develops at the initial site of injury, but, if left untreated, leads to a neurotransmitter cascade, causing sensitization of a large part of the body. In other words, the brain continually tells the body that it is traumatized. Acetylcholine is released, leading to a state of hyperarousal and a nearly constant fight-or-flight response. However, in others, no precipitating cause exists, with the syndrome possibly developing in early childhood (often leading to misdiagnosis of “growing pains”). Fibromyalgia syndrome sometimes is inherited, usually from the mother, although this is not proven.

Diagnosis of fibromyalgia

Diagnosis is based on the diagnostic tender points. When pressed, these tender points are painful. However, contrary to popular belief, a person does not have to have a specified number of aggravated tender points for diagnosis. Instead, they must have tender points present in all four quadrants of the body. Tender points include:

- Where the head and neck meet
- On the upper line of the shoulder, about halfway between the neck and shoulder, and then again slightly further down the back, and slightly more toward the spinal column
- On the back, close to the dimples above the buttocks
- Below the buttocks, near the outside of the thigh
- On the front of the neck, right above the inner edge of the collarbone, and then again a little farther out and slightly farther down toward the chest
- On the inner side of the lower arm, slightly below the elbow crease
- On the inner side of the knee

Note: These trigger points are not the same as those used for diagnosis of chronic myofascial pain. The two conditions are separate from each other, although often they occur together.

Other problems

Other problems associated with fibromyalgia syndrome include, among many others:

- Allergies and hypersensitivities
- Skin irritation
- Swelling and edema
- Reactive hypoglycemia
- Hypothyroidism
- Overgrowing connective tissue
- Fibrocystic breasts
- High cholesterol and triglycerides
- Unusual reactions to medicine
- Poor immunity
- Raynaud's phenomenon
- Irritable bowel syndrome
- Numbness and tingling
- Motor coordination problems
- Temporomandibular joint (TMJ) dysfunction
- Frequent headaches
- Insomnia
- Hypersensitivity to light
- Continuous runny nose
- Infertility
- Inability to stay focused and forgetfulness
- Frequent candida infections

Treatment

Treatment of fibromyalgia syndrome may include:

- Hormone growth therapy (a subset of patients have low levels of insulin-like growth factor)
- Pain medication
- Medication, such as Effexor XR[®], which is an antidepressant that interrupts the neurotransmitter cascade by acting as a serotonin and norepinephrine reuptake inhibitor, leading to relief of pain
- Neurontin[®] (anticonvulsant, which helps some people immensely with pain relief)
- Muscle relaxants—Flexiril[®], Zanaflex[®], etc
- Thyroid medication
- Guaifenesin (experimental at this time)
- Use of calcium channel blockers (research is ongoing)
- Physical therapy
- Movement therapies—Alexander technique, Trager therapy, etc
- Myofascial release
- Occupational therapy
- Acupuncture
- Malic acid combined with magnesium hydroxide
- Melatonin

Diet and fibromyalgia treatment

Note: Many of these recommendations are not supported by research and are hypotheses. Each individual with fibromyalgia is unique, and not all recommendations will help all patients. Furthermore, many of the recommendations could easily apply to the majority of the population for improvement of overall health.

These treatment recommendations include:

- Avoiding saturated and *trans* fats (searching for and avoiding foods with hydrogenated or partially hydrogenated oils listed on the ingredient list)
- Avoiding aspartame, as it seems to stimulate nerve cells
- Avoiding soda, as it leeches calcium from the body
- Eating foods rich in probiotics, such as yogurt, on a regular basis
- Taking either omega-3 fatty acid capsules or, better yet, eating fatty fish at least twice a week
- Replacing white flour with whole-wheat flour
- Avoiding high-carbohydrate diets, and considering learning about carbohydrate counting, if you suffer from reactive hypoglycemia
- Considering use of whey protein or powdered, egg-white solids to add some protein to high-carbohydrate meals
- Avoiding caffeine and alcohol
- Considering the elimination diet for suspect foods, if you think that you may have allergies or intolerances (do this under the care of a doctor or registered dietitian)
- Avoiding high-sodium foods
- Making sure you get enough of all vitamins and minerals by eating a balanced diet and considering supplementation, with special attention paid to your intake of:
 - Thiamine (vitamin B₁)—found in cereal grains, liver, meat, poultry, and fish
 - Pyridoxine (vitamin B₆)—found in meats, wheat products, vegetables, and nuts
 - Cobalamin (vitamin B₁₂)—found in liver, kidney, milk, eggs, fish, cheese, and muscle meats
 - Folic acid (vitamin B₉)—found in liver, mushrooms, green leafy vegetables, lean beef, potatoes, whole-wheat bread, orange juice, and dried beans
 - Selenium, content depending on the soil and water where the food is grown—good sources found in Brazil nuts, seafood, kidneys, liver, meat, and poultry
 - Magnesium—found in seeds, nuts, legumes, cereals, dark-green vegetables, milk, and milk products
- Drinking an adequate amount of well-filtered water

In one study, 18 patients with fibromyalgia followed a strict, low-salt, uncooked vegetable, lacto-bacteria-rich diet for 3 months. Significant improvements in pain, joint stiffness, and sleep quality were reported.

In another study, a vegan “living foods” diet, based on berries, fruits, vegetables, roots, nuts, germinated seeds, and sprouts, resulted in a decrease in joint stiffness. This diet was rich in vitamin C, vitamin E, and carotenoids.

References and recommended readings

Dorfman L. Medical nutrition therapy for rheumatic disorders. In: Mahan LK, Escott-Stump S (eds). *Krause's Food, Nutrition, and Diet Therapy*. 11th ed. Philadelphia, PA: WB Saunders; 2004:1137.

Starlanyl D, Copeland ME. *Fibromyalgia and Chronic Myofascial Pain: A Survival Manual*. 2nd ed. Oakland CA: New Harbinger Publications; 2001.

St Amand RP, Marek CC. *What Your Doctor May Not Tell You About Fibromyalgia: The Revolutionary Treatment That Can Reverse the Disease*. New York, NY: Hachette Book Group USA; 2006.

Review Date 2/09

G-0925