Arizona Arthritis & Rheumatology Associates

www.AZArthritis.com

Please note that the clinicians of Arizona Arthritis & Rheumatology Associates, P.C. do not provide specific treatment or management for primary fibromyalgia alone. The information contained in this guide is intended for educational purposes only and should not be used as a substitute for professional medical advice, diagnosis, or treatment. Always seek the guidance of your physician or other qualified health provider with any questions you may have regarding your condition. This guide is not meant to diagnose or treat fibromyalgia or any other medical condition.



Definition

Fibromyalgia (FM) is a very common condition. It is sometimes called fibrositis or myofascial pain syndrome. Primary symptoms are widespread muscle and/or joint pains – frequently reported as generalized body pain which can be described as bone and/or skin pain - marked fatigue, and poor/ non-restorative sleep. The last component of the syndrome most often is allodynia. This is the physical finding on examination of tender points (also called trigger points) when palpation/pressing by the clinician results in pain to the patient. The points are not the joints but soft tissue areas apart from or near the joint areas. Allodynia reflects a low pain threshold state: little physical stimulus results in a marked painful response. For many FM patients the fatigue is so profound that they have been diagnosed with "chronic fatigue syndrome" which is a separate clinical syndrome.

Cause

The cause is unknown. Some cases have no obvious trigger or "initial precipitating event". For approximately 30% in others, FM may develop after some jarring insult to the body which may include trauma (such as a car accident, back surgery, or arthritis), emotional stress (i.e., death of a loved one, sexual and/ or verbal abuse), depression, poor health/fitness, or chronic insomnia (poor sleep). Chronic obstructive sleep apnea is often associated with central pain syndromes including FM. These events begin a vicious cycle of poor sleep, leading to more pain, then worse sleep, etc. The net result is a lowering of your pain threshold that increases your overall pain level. Hence activities and simple things that never used to cause pain, now cause pain, stiffness, and muscle soreness in the FM patient. FM does not damage the joints or lead to deformity or disability. It is not an inflammatory or autoimmune disease and therefore is not a damaging disease. It is not arthritis or a disease of the musculoskeletal system. It is a disorder of nerve

pain impulses and processing of those impulses in the central nervous system including the spinal cord and the brain. It is more a disorder of the neurologic system. This is actually intuitive as we perceive pain due to impulses generated by nerves, processed by nerves, and felt as such with our awareness or sensorium. When you can't sleep (which is another function controlled by the neurologic system), you can't recharge your "battery" and therefore you are always tired. All of these functions are wired in our neurologic systems. And just like other system in the body, these neurologic systems become imbalanced and are therefore dysfunctional.

Who gets Fibromyalgia?

FM affects between 5-7 million Americans. Over 80% of fibromyalgia patients are female. The average age is between 30-50 years, but fibromyalgia may affect the very young or the very old. FM may also secondarily affect those with other forms of "arthritis" including autoimmune diseases such as rheumatoid arthritis, lupus, and Sjogren's syndrome, but also degenerative/osteoarthritis.

What are the symptoms?

Most people with FM complain of "pain all over"—in the joints or muscles, in the upper and lower body, and on both sides of the body. The intensity and sites of pain may vary from day to day. Pain often affects the neck, shoulders, between the shoulder blades (upper back), lower back, or hips, and also the arms and legs. Other painful areas include the elbows, knees, jaw, or chest. The most tender areas are called "trigger/tender points"—these tender areas are near or around the joints. But most often on careful examination by the clinician, tenderness is elicited generally over many/all regions of the body when they are squeezed (such as arms and leg) or pressed (such as the back, trunk, abdomen). On exam, unless there is a concomitant arthritis or tendonitis/bursitis, the joints are normal. FM patients often complain of severe fatigue, malaise, and joint stiffness that may last for hours. Chronic pain and poor sleep contribute to fatigue and numerous other bothersome symptoms in FM patients. It is very common for FM patients to have a flare of symptoms with changes of weather patterns and after they have done too much physical activity and the flare can be so severe to put them to bed for days.



Most Common Symptoms

Sleep problems

May appear as problems falling asleep, staying asleep, waking up many times during the night (often with problems falling back to sleep), restless or jerking legs (which can signal restless leg syndrome), or waking up very early in the morning. Most people with FM only sleep for a short period during the night and feel worse or more tired when they wake in the morning. Nonrestorative or non-restful sleep worsens the pain and lessens the chance of normal sleep the next night. Poor sleep can cause more pain, fatigue, headaches, poor memory, and even unexplained numbness. Many people with FM have poor sleep habits (e.g., sleep hygiene). If you sleep badly, you will feel bad. If you sleep fair, you will feel fair. To feel great, you must sleep great!

Other associated conditions

Many people with FM will often have major fatigue and malaise and past or current complaints of migraine and/or other headaches, irritable bowel syndrome (alternating diarrhea/constipation), premenstrual syndrome (PMS), chronic fatigue syndrome, depression, anxiety, multiple drug allergies, unexplained numbness and tingling, chronic TMJ syndrome, restless leg syndrome, poor memory or concentration and problems with thinking ("fibro-fog"). Again, most of these conditions are worsened by poor sleep. It must be stressed that any of these symptoms that could suggest a different condition that should be properly evaluated. For example, numbness and tingling should be evaluated for any different neurologic disease.

How is FM diagnosed?

There is no diagnostic lab or test for FM. This diagnosis is made on a clinical basis based on a careful medical history and physical examination. The overarching syndrome including: chronic body wide pain, non-restorative sleep, chronic fatigue, and allodynia (tenderness). X-rays and lab tests are normal and usually not necessary unless the individual symptom complex might suggest another disease. For example, marked fatigue and constipation could suggest a low thyroid state and so simple testing would be advised. The following pages described the key symptoms of FM, how FM is treated, sleep hygiene advice, and how to manage poor sleep.



What triggers a fibromyalgia flare-up?

- Stress to the system, including: trauma, physical/ emotional/sexual stress
- Life or daily routine changes
- Diet changes
- Hormonal changes
- Sleep disturbances
- Weather changes
- Illnesses/infections
- New medications or medication changes

Treatment of FM

There is no single drug or treatment that can cure FM. A combination of treatments is necessary to help this condition. First to state that it is quite important if there may be a particular root initiating or medical condition identified that has contributed to the development of FM, it needs to be addressed appropriately. Such examples may include treating obstructive sleep apnea or emotional/psychological trauma with proper psychological and psychiatric support.

Secondly, as FM can co-exist with other musculoskeletal and rheumatic diseases it can be difficult to separate what may be causing the pain and other symptoms. By example, when a rheumatologist's evaluation concludes that a patient's rheumatoid arthritis or systemic lupus erythematosus inflammation is properly controlled, the understanding at that point may very well be that the pain and related fatigue is well due to the FM. Increasing anti-inflammatory, steroid and/or immunosuppressive medication in such circumstances would be unwarranted.

The four cornerstones of treatment are:

1. Pain control

There is no single pain pill that will stop the pain. In fact, it must be emphasized that it is not necessary to be on any specific medication for fibromyalgia as it is not actually causing any inflammation or damage to your body. Your treatment should be focused rather on mind-body disciplines.

Mind-body disciplines include the following:

- Deep breathing
- Tai-chi, meditation, yoga, and other exercises: some form of physical activity is critical to maintain to improve function as a general important component of general health
- De-stressing
- Green light including environments (parks/gardens/forests/plants) and objects/lights in the house (e.g. plants, green paint, green lights etc). The frequency of green light is de-stressful for the brain and is being studied at academic medical centers for the treatment of FM and migraine headaches.

Pain pills alone may help your pain by only 10-35%. Many different types of medicine can be used to lessen your pain if mind-body disciplines fail:

- Tylenol Arthritis (acetaminophen) 650 mg: 2-3 tabs twice a day OR
- Ibuprofen (Advil, Nuprin, Motrin IB) 200 mg: 2-3 tabs 2 or 3 times daily (with meals) OR
- Aleve (naproxen) 250 mg 1-2 tabs twice a day (with meals). OR
- Prescription NSAIDs (anti-inflammatory pills): Celebrex, Mobic, Relafen, Daypro, Lodine among others (these NSAIDs may upset your stomach or cause bleeding; watch for heartburn or nausea and can lead to adverse kidney and/or blood pressure effects)



- True nerve pain medications including Lyrica/pregabalin (once or twice daily FDA approved) and gabapentin/Neurontin (not formally FDA approved) for FM. Of note these medications are approved for the treatment of diabetic nerve pain and shingles nerve pain, as well as seizures.
- Anti-depressants which can increase serotonin (elevates mood) and norepinephrine (lessens pain) such as duloxetine/Cymbalta and milnacipran/Savella are also FDA-approved for FM
- Weak narcotics (e.g., tramadol) may help to lessen pain (especially at bedtime), low dose naltrexone (LDN) which needs to be compounded is offered by some clinicians
- Strong narcotic pills like Vicodin, Lortab, Norco, Percocet, and separately steroids (like prednisone) are usually not helpful, may have harmful side effects, and should be avoided

2. Sleep control

The goal is to fall asleep easily, stay asleep throughout the night, and feel refreshed in the morning. Talk to your doctor about your sleep habits (see SLEEP HYGIENE on the next page). If needed, there are many sleeping aids/pills you can use that are usually not addictive. **These can be used safely each night if prescribed by your doctor.**

- OTC sleep aides include Tylenol PM, Advil PM, Melatonin, Valerian root, or magnesium powders (such as Calm) (no prescription needed), and doxylamine succinate: but check with your doctor if you have any condition which may not advise these: e.g. chronic kidney disease and magnesium
- Antidepressant pills in low doses like trazodone or Elavil (amitriptyline) may be helpful. They help FM patients to fall asleep and stay asleep. The doses used are often too low to treat depression but are helpful with sleep problems, pain, and muscle spasms.
- If the problems persist, an evaluation by a sleep specialist can help. Let your doctor know if you have problems with falling asleep, staying asleep, early waking, snoring, night pain, sleep apnea (sudden stops in breathing more common in obese or men), or restless legs.

3. Exercises

You must begin a regular stretching and exercise program 3 to 5 times a week. Regular exercise can improve sleep and reduce pain. **The best exercise for FM patients:**

- Swimming: aquatic therapy in warm, not cold, water is advised. This includes swimming, water walking, and water aerobics classes if tolerated. For water programs near you, call the Arthritis Foundation (214-826-4361) or the YMCA. Hot tubs or Jacuzzis help for a short time, but pool exercise is better by providing therapeutic stretch while exercising your muscles and joints.
- Yoga or Tai Chi or Pilates: All 3 are excellent forms of "stretching" exercise to help relieve or prevent muscle spasms/pain, while improving overall health. It is better to join a class/program/club to learn about yoga, Pilates, or Tai Chi. Find these by checking colleges/schools, the YMCA, physical therapists, or Google.
- Walking is good for overall health and although is advisable to try, it often does not help FM symptoms including fatigue or aching.
- Weightlifting is not advised and may aggravate your problems.
- Physical therapy may help (stretching, massage therapy, heat packs, ultrasound, biofeedback), and Cognitive Behavioral Therapy may also improve your pain.

4. Treating FM fatigue

Fatigue is a hallmark symptom of FM. Treatment of fatigue includes modalities previously listed such as reducing stress, maintaining a healthy diet and exercise program, and being consistent with sleep hygiene. Some nutritional supplements may also help mitigate fatigue, including Omega-3 fatty acids/fish oil 3000mg daily and Vitamin D3 2000iu daily.

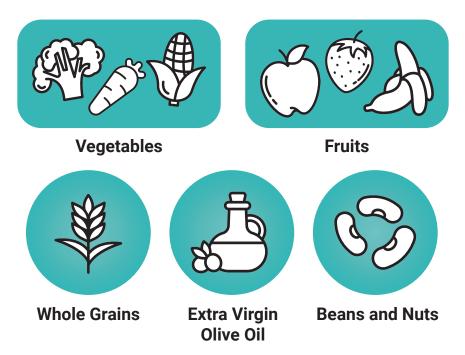
5. Diet

The Mediterranean diet is recommended to maintain a healthy body weight and lower your risk of cardiovascular disease and other chronic health conditions such as diabetes. The diet focuses mostly on consuming fruits, vegetables, and healthy fats. Specifically, following the Mediterranean diet includes eating lots of vegetables, fruits, beans/lentils, nuts, whole grains, extra virgin olive oil (the main



source of healthy fats), fish; moderate amounts of dairy such as cheese and yogurt; little to no red meat, and choosing poultry such as chicken or turkey over meat such as beef or pork; little to no sweets, sugary drinks, or butter; limit alcohol to a moderate amount of wine with meals.

Plan Your Meals Around These Foods for a Mediterranean Diet



6. Treat depression or anxiety (if present)

If depression and/or anxiety is a present, then discuss with you primary clinician and if further support is needed, consultation and care by a psychologist and/or psychiatrist is necessary; especially if the above therapies do not work. Anti-anxiety/anti-depressant medications are always an option to help as well. **Listed below are area-based consultants:**

Pain Psychologists

Mayo Clinic, Phoenix/Scottsdale, AZ Dr. Cynthia O. Townsend (Ph.D., L.P.) Phone: (866) 629-6362

Barrow Neurological Institute Dr. Jennifer Gray (Ph.D.) 240 W. Thomas Rd., Phoenix, AZ 85013 Phone: (877) 229-1335

Biltmore Psychology and Counseling Dr. Audrey Sessions (Psy.D.) – offers Cognitive Behavioral Therapy (CBT)

Dr. Linda DeBiase (Psy.D.) – offers Cognitive Behavioral Therapy (CBT)

6245 N 24th Parkway, Suite #106 Phoenix, Arizona 85016 Phone: (480) 637-4328

Pain Therapy Programs

Mayo Clinic's Pain Rehabilitation Center Phone: (480) 342-6240

Arizona Pain's Mercy Care Center of Excellence Program (includes CBT, chronic pain treatment, support groups) Multiple locations around the Valley Phone: (480) 245-6211

Also consider FM Support Groups on Facebook or meetup.com

7. Green light exposure (such as green LED lights, or a more natural source such as plants)

Green light frequency exposure is being studied at academic medical centers for migraine headaches, fibromyalgia and other pain syndromes and evidence suggests it may be beneficial for FM patients.

It has been shown to do the following:

- Re-set the circadian rhythm, providing for better sleep
- Help process pain and reduce stress
- Increase endorphins which are pain relieving ("runner's high)
- Possibly regulate serotonin

8. Obesity management

Having increased body fat and decreased muscle mass makes one more susceptible to increased pain and fatigue, making your fibromyalgia worse. It also increases the mechanical load and stress on all tissues and the musculoskeletal system as a whole which contributes to mechanical and painful stimulation.

Moreover, fibromyalgia can contribute to a more sedentary lifestyle which can lead to weight gain.

Along with a Mediterranean diet and regular exercise, the use of GLP-1 receptor agonists or GLP-1/GIP agonists such as semaglutide (Ozempic, Wegovy) and tirzepatide (Mounjaro, Zepbound) may be useful

in decreasing overall BMI. We suggest speaking with your primary care provider about starting one of these medications.



Twelve Steps for Good Sleep

1.You need great sleep every night-at least 7 hours for most people.

• Do not oversleep. Too much sleep is not a good idea. Extra sleep (especially during the day) weakens the refreshing power of a good night's sleep and may interfere with good sleep the next night. Sleep only as much as you need to feel well rested during the following day.

2. Develop and keep a regular sleep schedule and routine.

 Go to bed and get up at the same time every day (including weekends and holidays). Do not take daytime naps. This will steal from your nighttime sleep. If you must, limit afternoon power naps to 30-50 minutes. Get plenty of morning and/or afternoon sunlight. If you work nights, maintain the same sleep schedule, even on your days off.

3. Do not struggle to fall asleep or get frustrated when falling asleep.

• Do not go to bed until you are drowsy. Use reading, meditation, or hot baths to wind down and make yourself sleepy. If you cannot fall asleep, go to another room where you can relax. Return to bed when drowsy.

4. Establish a constant sleep environment.

• Keep your bedroom quiet, dark, and at a comfortable sleeping temperature. Position the bedroom clock so it will not bother or wake you. Sleep in your bed and not on the sofa or recliner.

5. Your bed is your special place for sleep only.

• Do not bring blue light (cell phones, iPads/tablets, laptops/computers, TV) into bed. Your bed should be free of remote controls, computers, cell phones, food, children, pets, and snoring spouses. Your bedroom is not a place to hang out; it is not your office and is not "command central" for you or your family.

6. Do not go to bed hungry, as hunger may disturb sleep.

• You may sleep better with a light carbohydrate snack at bedtime. However, avoid large meals before bedtime.

7. Tell your doctor about specific sleep problems.

• Your doctor needs to know if you snore, sleepwalk, have nightmares, restless legs, sleep apnea, nighttime pain, heartburn, narcolepsy, etc. Also, let them know if you do not tolerate sleeping medicines.

8. Avoid bedtime stimulants!

• Avoid caffeine (tea, coffee, soda, etc.), alcohol, smoking/tobacco, and stressful/stimulating books, TV shows, phone calls or confrontations. These will interfere with falling and staying asleep.



9. Exercise every day and try to live an active lifestyle.

• Exercise will promote and enhance your sleep.

10. Avoid excessive fluid intake in the evenings.

• Many visits to the bathroom interrupt, frustrate and decrease your sleep. Limit your fluid intake after 6:00 p.m. Also, if you are on water pills such as diuretics, talk to your primary care doctor about decreasing, stopping, or substituting these medications.

11. Improve your sleep comfort.

• Your bed (mattress, pillows), bedclothes (blankets, comforters, sheets), and sleepwear such as pajamas should be of high quality and comfort. You should look forward to using these and getting great sleep every night!

12. Consider using bedtime relaxation techniques.

• Warm bath, massage, imagery, and muscle relaxation can be used to relax your brain and muscles. Avoid stressful tasks or activities (bill paying, arguments), stimulating books or television before bedtime.



Impactful Sleep Hygiene Practices



Establish a nighttime routine.



Limit caffeine



Get up and go to sleep at the same time.



Exercise



Create a healthy sleep environment.







Turn off electronics an hour before bed.



Avoid large, fatty meals prior to sleeping.