



# Exercise Programming for Fibromyalgia

By Jennifer Salter, MSW

**F**ibromyalgia (FM) is a chronic health condition characterized by widespread body pain that is often felt from head to toe. The pain, felt in muscles and tendons, is considered a rheumatological condition although its etiology is unknown. Statistics Canada reports that 343,000 Canadians have been diagnosed with FM, although the organization Fibromyalgia-Chronic Fatigue Syndrome Canada believes that this number is grossly underestimated—they believe that upwards of 700,000 to 1.2

million Canadians are living with FM, or 3.5 to five percent of the Canadian population.

## Diagnostic Criteria for Fibromyalgia

As stated above, FM is characterized by widespread musculoskeletal pain, fatigue, and multiple tender points. Tender points refers to tenderness that occurs in precise, localized areas, particularly in the neck, spine, shoulders, and hips. Sleep disturbances, morning stiffness, irritable bowel syndrome, anxiety, cognitive problems (“brain fog” and memory impairment), headaches, sleep disorders, muscle spasms,

reduced coordination, multiple chemical sensitivity, and decreased physical endurance are often co-occurring.

## Exercise and Fibromyalgia

It is difficult to study the effect of exercise on fibromyalgia, as many study participants drop out during the course of the research. Exercise protocols modelled after the general guidelines of the American College of Sports Medicine (ACSM), often utilized in research, are too challenging for these participants. This exacerbates pain and fatigue.

That being said, there is good evidence

“Never promise clients pain reduction. Instead, tell them you will do your best to help them, focusing instead on functional capacity and the ease with which activities of daily living (ADLs) are executed.”

8-12 repetitions to fatigue can reduce pain by up to 49 points on a 0-100 scale, and in addition to reducing the number of active tender points.

### Exercise Specialist Recommendations

• **Teach correct breathing before learning how to exercise.** Learning how to breathe without bracing for pain is a critical skill to master before progressing to structured exercises. Cue deep breaths that reach the bottom of the ribcage, with gradual exhalations. This can be paired with simple movements like gentle stretching or small pelvic tilts.

• **Be realistic about goals.** Never promise clients pain reduction. Instead, tell them you will do your best to help them, focusing instead on functional capacity and the ease with which activities of daily living (ADLs) are executed.

• **Program low intensity cardiovascular training (40-60% VO<sub>2</sub>max) with one to two days between workouts.** You can also use discontinuous, or fragmented, exercise—small segments lasting two to 10 minutes, broken up throughout the day.

• **Have clients do less than they are capable of.** This is different for each person and it is the personal trainer's challenge to determine what each client's threshold is, and program for less. People with FM are super-sensitive, and as fitness professionals we must err on the side of caution when it comes to exercise volume and intensity.

• **Use gradual progression!** People with FM must take this concept in exercise physiology to the extreme. Whereas someone without the condition might spend three to six months working up to an ideal level of fitness, those with FM will need at least six to twelve months—if not more—to slowly build strength and endurance. Temporary flare-ups may require a person with FM to take a break before resuming the exercise routine.

• **Start with one modality at a time.** This gives the personal trainer a better idea

of what is and is not working. Begin with cardiovascular exercise, add in strength training, then stretching.

• **Include strength training.** In some individuals, a vicious cycle develops—inactivity due to chronic pain, then more pain due to muscle atrophy. Besides muscles, resistance training strengthens connective tissues like tendons and ligaments, which enhance joint stability. Loss of strength also increases the risk of acute injuries like tendonitis and strained ligaments, and chronic problems like arthritis.

• **Schedule rest.** This is part of the exercise program! People with FM may experience post exertional fatigue up to 48 hours after a workout, and adequate rest on exercise days may prevent this from happening. Furthermore, training adaptations occur for all individuals during the rest periods between sessions. Soaking in a hot bath with Epsom salts can also help.

• **Encourage clients to safeguard sleep.** Most FM sufferers have disordered sleep, most commonly a deficit of delta sleep—the deepest phase of the sleep cycle. Tell your client to go to bed at the same time every night, and make the hour before retiring relaxing by avoiding the computer, phone, email, or upsetting conversations. Instruct your client to avoid consuming liquids right before bed, avoid exposure to bright light before bed and during the night, eat meals at regular times, avoid afternoon naps, and to consider medication if nothing else works. Clients should not exercise if they have had a particularly poor night's sleep.

By following the above recommendations, people who suffer from fibromyalgia can have success with exercise, just like those without the condition.

*For references, contact the author.*

Jennifer Salter, MSW, ACE-PT, ACE-AHFS, AAH-FRP, is the director of Lifeline Personal Training and Post Rehabilitation Services. For the last 18 years, she has specialized in helping people use exercise to manage their medical problems, working within evidence-based parameters of what the literature has shown to be safe and effective for specific health conditions. Email her at [jennifer@lifelinepersonaltraining.com](mailto:jennifer@lifelinepersonaltraining.com), or visit her website, [www.lifelinepersonaltraining.com](http://www.lifelinepersonaltraining.com).

that cardiovascular exercise is helpful. On average, this population has a 58 percent reduction in cardiovascular capacity, compared to normal subjects the same age. A meta-analysis from 2008 found that regular cardiovascular exercise (following the ACSM guidelines) had a positive effect on global wellbeing, physical function, pain, and tender points. The positive effect of the exercise, interestingly, was unrelated to increases in VO<sub>2</sub>max. That is to say that in these studies, people with FM experienced benefits from physical activity that did not necessarily result in actual increases in aerobic capacity.

Properly designed resistance training regimens are safe and have been shown to improve FM patients' pain tolerance. Recently, researchers have demonstrated that strength training stymied losses in muscle mass, quality, power, and strength; which are usually accelerated in FM patients. In fact, resistance training two to three days per week at intensities corresponding to

