

Fibromyalgia, Syndrome and Aquatic Exercise

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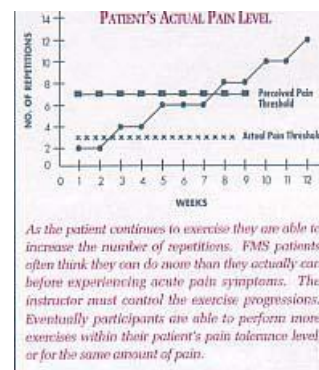
***FMS is a chronic condition of widespread pain and profound fatigue***

Fibromyalgia is called a syndrome rather than a disease because it is recognized by a collection of symptoms rather than a specific malfunction. FMS is a chronic condition of widespread pain and profound fatigue. The pain is often described as diffuse aching or burning from "head to toe". Exacerbations and remissions are characteristic of this syndrome. The pain is worse at some times than at others; it may change locations and may become more severe in parts of the body used most. For some people the pain is intense enough to interfere with daily tasks. For others it may simply be a mild discomfort. The fatigue experienced by FMS patients ranges from feeling tired to the exhaustion of flu-like symptoms which may come and go. Many patients with FMS can be successfully integrated into a regular aquafitness program through a progressive and safe therapeutic aquatic exercise program. Most aquafitness classes are conducted in water temperatures below 88° F (28° C). Unfortunately, the symptoms of fibromyalgia are often exacerbated with cool, damp air temperatures and cool water (less than 88°F). In general heat seems to provide a more suitable environment for participants suffering with FMS. The heat raises change causes the release of endorphins into the circulatory system. Endorphins act as a pain suppressant which permits the exerciser to continue. Exercising in warm water (88-94°F; 28-34°C) facilitates muscular relaxation and decreases pain sensations in participants with FMS.

Research indicates that patients with FMS who exercise regularly can lead relatively normal lives. Some of the goals of an aquatic exercise program are to increase muscular endurance and exercise tolerance. As fitness levels improve, symptoms such as post-exertional pain, stiffness and muscle weakness often decrease. When programming an FMS class follow the F.I.T.T. formula (FREQUENCY, INTENSITY, TIME AND TYPE).

FREQUENCY

Educate **FMS** patients to exercise two to three times per week. Post-exertional pain is most prominent in the transitional phase between the "unfit" and the "more fit" state. Encourage participants to persevere with an exercise routine through this transitional phase. Once participants know the routine they may come to the pool at their convenience. The minimum frequency requirement is 2 to 3 sessions per week. Patients are encouraged to form smaller groups. This provides motivation to maintain the appropriate frequency.

**INTENSITY**

Exercise programs must begin slowly. Many FMS patients do not become aerobically fit until they have been working on their program for more than six months. Creating a supportive and caring environment is very important. It will encourage participants

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to "stick with it". Always start with a maximum of three repetitions of each aquatic exercise when beginning a new phase of the exercise program regardless of the patients' perceived pain tolerance. When progress is slow and methodical the patient will avoid unnecessary setbacks. Gradually increase exercise intensity by adding two repetitions of each exercise every two to three weeks to increase muscular endurance and raise the pain threshold.

Before each progression the participant must be able to perform three consecutive sessions without a substantial increase in pain. Once the patient is able to perform 15 repetitions, it is time to introduce resistive devices such as paddles, ankle cuffs, wands and Hydrotone™ boots.

Many patients with FMS can be successfully integrated into a regular aquafitness program through a progressive and safe therapeutic aquatic exercise program.

Once again, it is important to start a new progression with three repetitions. After the participant can perform at least 15 repetitions of a number of exercises with resistive devices they may be ready to join a community aquafitness program. At this point the patient is able to work vigorously enough in the water to increase their core temperature. Tolerance of water temperatures will depend on the individual and their condition.

Successful integration into a regular aquafitness class works wonders for individuals who have been confined to a therapeutic environment. There are many positive side effects above and beyond enhancement of physical fitness. A successful FMS participant may also experience increased self-esteem and confidence!

Caution

As the patient continues to exercise they are able to increase the number of repetitions. FMS patients often think they can do more than they actually can before experiencing acute pain symptoms. The instructor must control the exercise progressions. Eventually participants are able to perform more exercises within their patient's pain tolerance level or for the same amount of pain.

TIME

Allow a minimum of 30 minutes to complete each aquatic exercise program. Gradually work up to 45 minutes of continuous activity. After gently warming up the body, take time to effectively stretch the muscles which are going to be strengthened during the exercise session.

TYPE

Match the exercises which are selected to the ability of the individual. Consider their previous exercise history.



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Phase 1:

Walking: forward, backward, sideways; Stretch: calf stretch, hamstring stretch, quad stretch, hip flexor stretch, ankle "alphabet": write name with ankle






Beginner: walk experiencing only the resistance of the water

Advanced: walk holding a backboard or wearing ankle cuffs

Choose aerobic aquatic activities from the following list:

- 1) Water walking in deep water (71% immersion chest level)
- 2) Bicycle using a flotation device such as an aquafitness belt, inner tube or holding onto the corners of a pool with your back to the pool wall.
- 3) Kick board activities such as prone (front lying) knee kicks, prone hip kicks, whip kick.
- 4) Deep water running with the aid of a flotation device around the body.
- 5) Stationary choreographed movements such as high knee lifts, jumping jacks, and cross-country skiing.

Summary and key points to consider when designing exercises for FMS participants:

-  Focus on stretching and strengthening the muscles of the neck, arms, legs and spine. Perform each exercise three times only. Increase the number of repetitions and the amount of resistance slowly and gently over a period of weeks or months.
-  Pay close attention to the amount of pain experienced by the participant and monitor the progressions of exercise accordingly.
-  Avoid swimming exercises which involve vigorous arm movements. Instead select deep water exercise keeping the arms under the water at all times.
-  Perform the exercise program a minimum of two to three times a week
-  Educate the participant about their program so they will know what to expect. If patients experience a flare encourages the participant to listen to their body and respond accordingly