

## *“The importance of Exercise in the Management of Arthritis and Fibromyalgia”*

By: Joyce Kight, LPT  
Licensed Physical Therapist

Fibromyalgia syndrome affects between 3 to 6 million persons, most are female and between the ages of 25-50. Its characteristics are widespread soft tissue pain. Patients with Fibromyalgia have a low pain threshold. This syndrome accounts for 20% of the visits to Rheumatologist.

The entity of Fibromyalgia as a distinct disease came into question when studied in the 1980's when tissue samples from these patient's were normal. In the 1990's the American College of Rheumatology published criteria for classification of Fibromyalgia. Two cardinal features were required for the classification, they are as follows: 1) patients must test positive for 11 of 18 "tenderpoints." These are localized areas of soft tissue pain near joints. Tender points are in the trapezius region, supraspinatus origin, lateral epicondyle, occipital area, lower cervical area, costochondral junction, buttocks, greater trochanter and medial knee. 2) Subjective complaints of widespread and persistent musculoskeletal pain for greater than three months.

Fibromyalgia is closely associated with other medical entities most commonly Chronic Fatigue Syndrome. Other entities include: hypothyroidism, infectious diseases, opiate or steroid medication withdrawal, bacterial or viral infection and HIV. Interestingly, it is hypothesized that many of these patient's had subclinical Fibromyalgia that became symptomatic as their pain threshold was lessened by their current condition.

It is felt that Fibromyalgia is triggered by an injury or trauma that affects the central nervous system. This infectious agent, typically viral, is associated with changes in the muscle metabolism resulting in decreased blood flow possibly resulting in the development of “tender points.”

Characteristically, patients with Fibromyalgia have an abnormal level of neurotransmitters, typically substance P (3X the amount) in the cerebrospinal fluid; this substance detects pain resulting in abnormally low pain threshold. These patients also have low levels of serotonin and low growth hormone that assists in muscle repair. These chemicals also control pain, mood, sleep and the immune system.

Treatment of Fibromyalgia requires “Good Physical Therapy” which is hands on manual therapy as opposed to passive modalities such as heat and ultrasound. “Good Hands” allow the clinician to treat the tender points by breaking up scar tissue thereby improving blood flow and facilitating healing of the area.

The second form of treatment is exercise. This not only improves the physical condition of the patient, but also increases the flow of neurotransmitters and serotonin. Thus the combined physical and psychological effects of exercise are imperative for the improved function of the fibromyalgia patient.

“Take two laps and call me in the morning” is the message of a new study that shows people with fibromyalgia can reduce their own pain and discomfort by following a regular exercise routine. The British Medical Journal found that moderate aerobic exercise produces substantial improvement in how patients with fibromyalgia feel. After one year there was a reduction in clinical symptoms of fibromyalgia in those patients who performed regular aerobic exercise. The patients also experienced a reduction in muscle and joint stiffness. Lastly, the fibromyalgia had less impact on their daily life including improved sleep quality and a reduction in tissue and joint pain

Studies have shown that aerobic exercise; particularly low impact is one of the best for the fibromyalgia patient. The intensity should vary depending on the condition of the patient. Many, if inactive, will need to begin with ten minutes, and then slowly increase by five minutes every three to five days.

Low impact exercise may be walking, stationary biking or swimming in a warm pool. If swimming becomes the exercise of choice, the water temperature may need to be cool to allow for body cooling and improved oxygen exchange.

If walking is the exercise of choice, proper shoes are imperative to ensure proper foot position and to protect joints up the chain. Orthotics may be necessary and would require an assessment by a professional.

Because aerobic exercise does not consistently increase strength, strength training using low weights and high repetition may be necessary. Strength training will assist in maintaining and developing good postural habits. These include: cervical and lumbar lordosis, thoracic kyphosis, and good abdominal, pelvic and scapular strength. This will decrease the stress on muscles and prevent spasm in the tender point area.

In conclusion, exercise ensures good physical function for all patients. It is particularly important for the patient with fibromyalgia as it allows for cardiovascular fitness, muscle strength and overall improvement in day-to-day function.

KCP Physical Therapy specializes in the treatment of musculoskeletal problems including arthritis and fibromyalgia. We provide hands on care, education and instruction in safe effective exercise. If you are interested in additional information on the services provided by our company, please feel free to contact us at 704-541-1191 or go to our website @ [www.KCPPhysicalTherapy.com](http://www.KCPPhysicalTherapy.com).

#### *Bibliography:*

*“Living Effectively and Adapting to Fibromyalgia-Yes You Can”, Dennis Yurk, PhD, University of Washington School of Medicine.*

*“Effect of Exercise on Physical Function” Curr Opin Rheumatology 16(2): 138-142, 2004 Lippincott Williams & Wilkins.*

*“Understanding Fibromyalgia,” National Institute of Health, December 1999.*

*Fibromyalgia/Myofascial Pain Syndrome Handout #3, Devin Starlanyl, M.D.*  
*“Exercise Can Ease Fibromyalgia”, 2002 Web MD*  
*“Significant Soft Tissue Syndromes” William Cabot, MD, FAAOS*  
*“Fibromyalgia/Myofascial Pain Syndrome Handout 1,” Devin Starlanyl, M.D.*