Lifespan
Physician Group, Inc.
Delivering health with care®

Lifespan Lyme Disease Center

Exercising With Lyme

Lyme patients are often plagued by fatigue and musculoskeletal pain. This can make the exercise portion of a wellness routine difficult. However, the key is exercising in moderation and finding an exercise routine to fit your life with Lyme.

Exercise can help alleviate depression, strengthen the immune system, bones and muscles, and can actually be a form of pain relief. In addition, exercise is important to help prevent your body from falling victim to other illnesses in addition to your Lyme. These illnesses include osteoporosis, obesity, diabetes, heart disease, and metabolic syndrome.

How it works: The Body

- Exercise is protective through a combination of effects on metabolic and regulatory processes, cholesterol and blood lipid concentrations and clotting factors, possibly on arterial blood pressure, and through its role in weight reduction.
- Regular exercise increases the efficiency of the heart and increases the patient's ability to do work. An increase in cardiac fitness means that the heart will actually have to work less hard. The heart will beat less frequently to do the same amount of exercise and arterial pressure will fall which reduces the workload of the heart muscles.
- Physical activity increases the diameter of coronary arteries and formation of collateral vessels if a main coronary artery is blocked. It also decreases the sensitivity of coronary arteries to spasm, thus reducing the risk of a heart attack.
- It maintains and increases the mineral content of bones which can halt or reverse the decline in bone density as people age.
- It prevents non-insulin dependent diabetes tolerance. Laboratory studies have shown that exercise can improve carbohydrate tolerance, insulin sensitivity, and glucose tolerance.
- Exercise increases blood flow and lymphatic activity which allows immune system cells greater access throughout the body, thus increasing their ability to fight infection.

How it works (several hypothesis): The Mind

- Increases in temperature due to exercise heat specific brain regions, such as the brain stem, and can lead to an overall feeling of relaxation and reduction in muscular tension.
- The release of endorphins increases. Studies have shown endorphins are related to positive moods and a sense of wellbeing.
- Exercise may lead to an increase in the availability of brain neurotransmitters (e.g., serotonin, dopamine, and norepinephrine) that are diminished with depression.
- Physical activity serves as a distraction from worries and depressing thoughts.
- Involvement in an exercise program can enhance feelings of coping and competency, which help combat feelings of depression.

Suggestions for Exercising with Lyme

We have determined that exercise is definitely important, but Lyme disease can make habitual physical activity difficult. Speak with a health professional to determine the relative intensity of your exercise routine. Moderate or light exercise is still very beneficial. Set a goal to do some light exercise within the limits of your illness. Remember that exercise will eventually decrease your mental and physical limitations and act in a positive feedback cycle, which will allow you to do more. Here are some light exercise suggestions to help your Lyme symptoms:

- Consider visiting a physical therapist if you are not already doing so. A therapist can teach you particular exercises tailored to your needs and can be a part of a regular exercise routine.
- Swim! There is very little impact on the joints when you swim, and cold water can reduce swelling and pain. Swimming can be as strenuous as you make it. Light options include swimming with a float, slow swimming, water aerobics, and even just treading water for short amounts of time.
- Walking. Again, this can be modified easily depending on your physical limitations. Speed walking can be more strenuous, or you can walk very short distances at your own pace. Walk around the block, go shopping, walk on the beach, walk on a treadmill while watching TV or just during the commercials.
- Yoga/Tai chi. These practices focus on breathing, which can aid in relaxation and meditation. They're also great for stretching and mild physical activity. Chair yoga is also an option.
- Lifting light weights, even one or two pounds, can strengthen muscles and tendons. This provides additional stability to the joins.
- Get outdoors! Go hiking, snowshoeing, golfing, skiing, kayaking, biking, rollerblading, and walking. Even non-exercise activities will certainly keep you more active than sitting in the house. Go birdwatching, go for a picnic, plant a garden, fly a kite, go fishing, do some outdoor photography, learn to identify medicinal/edible plants, the possibilities are endless!

Sources for more information:

About the mental benefits of exercise: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC474733/

About how exercise promotes a healthy body: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2540212/pdf/bmj00440-0047.pdf

All about general physical activity (remember, you may need to follow modified exercise recommendations outside of the CDC guidelines. Discussed with your doctor. : https://www.cdc.gov/physicalactivity/basics/index.htm

Works Cited

Craft, L. L., & Perna, F. M. (2004). The Benefits of Exercise for the Clinically Depressed. *Primary Care Companion to The Journal of Clinical Psychiatry*,*6*(3), 104–111.

Fentem, P. H. (1994). ABC of sports medicine. Benefits of exercise in health and disease. *BMJ: British Medical Journal*, *308*(6939), 1291–1295.

"Physical Activity." *Cdc.gov*. Centers for Disease Control, n.d. Web. 8 July 2016. <https://www.cdc.gov/physicalactivity/basics/index.htm>.