

Exercise and Post-Polio Syndrome

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Fact Sheet

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Post-Polio Syndrome (PPS) is a condition that affects many polio survivors. Decades after contracting the polio virus, individuals may begin to experience new weakness, pain and fatigue. Managing these new symptoms differs for each person. It is recommended that polio survivors seek treatment from specialists familiar with PPS.

Exercise is an important part of the management of PPS. Researchers found that individuals with PPS who engage in regular physical activity reported a higher level of function and fewer symptoms than those who were not physically active.¹ Consult with your doctor before starting an exercise program. Consult a physical therapist to determine the right intensity level and type of exercise for you to avoid fatigue and pain.

General Strengthening Exercise Guidelines^{1,2,3}

- Exercise should not cause muscle soreness or pain.
- Exercise should not lead to fatigue that prevents participation in other activities that day or the days following.
- Strengthening exercises can be completed with muscles that move the joint through their full range of motion. For muscles that are weaker, consulting with a physical therapist is recommended before attempting any strengthening.
- Minimal to moderate intensity exercise is generally recommended.
- Progression of exercise is slow especially in those muscles that have not been exercised for a period of time or have chronic weakness from the initial polio virus

Aerobic Exercise

Aerobic exercise is recommended for most individuals with PPS. It is important to find the best type of aerobic activity to safely achieve a cardiovascular benefit. Aerobic exercise should not cause muscle fatigue, generalized fatigue, muscle soreness, or pain.^{1,2,3}

- Duration: Aerobic activity is recommended 3-4 times per week building up to a total of 30 minutes each session.
- Mode of exercise:
 - Walking over ground or on a treadmill may be recommended for individuals who do not have symptoms of leg weakness or pain.
 - An upper body ergometer (UBE) or arm bike may be recommended when the arms are strong but there are symptoms of leg weakness.
 - A stationary bike may be recommended when arm weakness is the primary problem, or balance problems limit safe walking.
- Intensity: Light to moderate intensity

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Aquatic Exercise^{1,2,3}

Water exercises in a warm pool can improve pain, endurance, and reports of wellbeing.

- Water exercises are used for strengthening, flexibility, and aerobic exercise.
- People with PPS must use caution in the pool to avoid overuse and fatigue.
- Water can make the limbs and trunk feel weightless and it can be easy to overwork muscles.

Stretching

Flexibility is important for maintaining and improving muscle length and joint range of motion for daily activities.

Stretching exercises can help to manage pain, improve flexibility, and reduce risk of falls.

Special Considerations^{1,2,3}

- When fatigue is significant, lifestyle changes to conserve energy may be a priority before starting an exercise program
- When weakness is significant, strengthening may not be recommended.

Exercise is an important part of treatment for individuals with PPS, but should not cause fatigue, muscle soreness, or pain. If you experience any of these symptoms, consult with your physical therapist to modify your exercise prescription.

For further information and resources, go to <http://post-polio.org/>

References

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