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Equipment adaptations

There are many equipment adaptations that can help stroke victims. Splints or orthotic devices help to control muscle tone and joint position, preventing injury and pain. You can improve your grip with expanded or padded gripping devices. Mobility devices such as canes, walkers and even wheelchairs can be incorporated into your fitness program.

Encourage your trainer and your physical and/or occupational therapist to collaborate on your behalf. They will have fun and so will you!

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Starting a Stroke Recovery Fitness Program

by Mary Jo Korn

A STROKE, OR A CEREBRAL VASCULAR accident, occurs when blood circulation is restricted to part of the brain causing impairment of movement, balance, endurance, sensory awareness, vision, communication, judgment, learning and/or emotions. Early detection and treatment allow many stroke victims to resume productive lives.

Personal trainers are playing an increasing role in the recovery process. ACE's Clinical Exercise Specialist (CES) certification process helps to prepare trainers to work with post rehabilitation clients. What follows are post-stroke fitness program guidelines for several different areas.

Strength Training

Spasticity, or increased muscle tone, is a common post-stroke symptom and worsens with stress. Increased spasticity may cause a loss of balance or an uncontrolled movement in the involved limb(s). Make gradual increases during weight training. Begin each new exercise in a more cautious position (i.e., sitting vs. standing). Monitor your response before you proceed.

If you have been restricted in your ability to stand or walk, your bones may be at higher risk of osteoporosis. Take care to avoid falling or overloading the joints. Substitute exercises such as a bench leg press to simulate weight bearing if you are unable to stand, and stationary biking if you are unable to walk.

Blood pressure increases substantially when you hold your breath during an exercise. Be sure you perform each exercise with a proper breathing pattern.

Flexibility

Nonfunctional or disabled muscles and joints need to be stretched just like their functional counterparts. Flexibility exercises should be done at least daily. Although active movement is always preferable, joints can be passively moved either by you, your trainer or by a family member who has learned the proper technique.

Posture

Changes in muscle tone, balance and sometimes vision may cause stroke victims to assume a stooped posture. Posture retraining is essential to restoring normal movement. Emphasize extension of the head, neck,

trunk, hips and knees. Let your vision lead your movement. Look up often during your activities to improve your posture, your movement and your outlook!

Don't forget the all-important trunk muscles in your fitness program. Emphasize extension and rotation. One classic exercise for the trunk is to lie on your back with hips and knees flexed, feet flat on the floor. Gently roll both knees from side to side. Advance this basic exercise by moving your arms, head, neck and shoulders in the opposite direction. Move slowly, feel the stretch. Progress to trunk rotation exercises during sitting and then standing by moving your arms or legs across the midline of your body as you exercise. This will dramatically affect overall muscle tone, posture and visceral responses such as breathing.

Cardiac Conditioning

First, get your physician's approval. You may need to modify your program to stay within a modified heart rate range. Use a heart rate monitor throughout your exercise routine.

Nutrition

If your stroke was the result of fatty build up or clotting in your arteries, changing eating habits may be life sustaining. Excessive weight on disabled joints also puts you at risk for injury and/or arthritic changes and strains your cardiovascular system. Exercise to reduce body fat.

General Well-being

Your fear of falling can be lessened by incorporating balance exercises into your program; always work at a safe pace with guarding to prevent a fall.

Emotional and cognitive changes can result from the damage to the brain or from the frustration associated with chronic disability. You may experience poor judgment, have bouts of bad temper, feel apathetic, have a shortened attention span, or be depressed or anxious. Sometimes medication and/or psychotherapy is needed. Exercising and being fit will help to alleviate stress, improve your ability to learn and give your spirit a lift as well.

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If you are interested in information on other health and fitness topics, contact: American Council on Exercise, 4851 Paramount Drive, San Diego, CA 92123, 800-825-3636; or, go online at <http://www.acefitness.org> and access the complete list of ACE Fit Facts.