

THERAPIST APPROACH to Post-Polio Syndrome Pain Management through Exercise and Energy Conservation

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Ways to address strengthening, pain management, cardiovascular health, and body mechanics

Treatment:

- Partially denervated muscle does not have the physiologic capacity to respond to a conventional strengthening program. Instead, programs aimed at no exhaustive exercise and general body conditioning are preferable.
- Orthotics
- Assistive devices
- Exercise and combination of cognitive behavioral therapy
- Tai Chi for Balance
- Gait patterns vary among individuals with PPS as the weakness associated with the disease is variable

Individuals with PPS who report engaging in physical activity twice weekly demonstrate better gait characteristics than those who are less active.

Physical therapists can consider these findings in developing an overall plan of care for function and health.

APTA (American Physical Therapy Assoc.) General Exercise Guidelines for Post-Polio Syndrome

- 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 should only be attempted with muscles that move through their full range of motion.
- 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.

Types of Pain

- Post-Polio Muscle Pain
Often occurs in previously affected muscles and is described as cramping, “crawling” and twitching pain
- Overuse Pain
Tendinitis, muscle soreness, muscle tightness
- Biomechanical Pain
Occurs due to degeneration of joints of body structures
Ex: Low back pain, knee pain, degenerative joint disease, hip pain, shoulder pain

Addressing your Pain

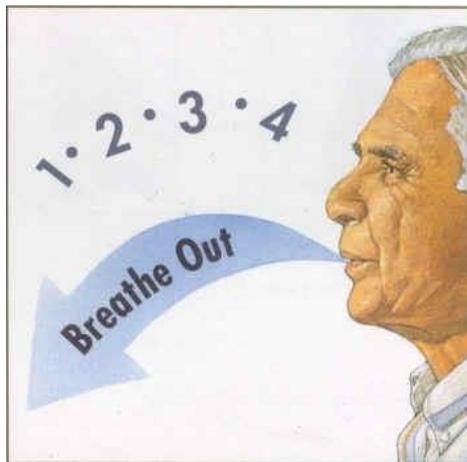
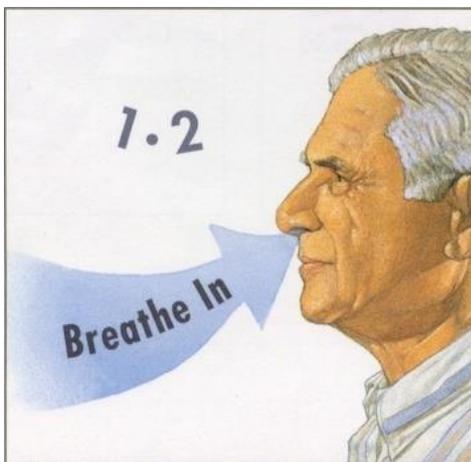
- Post-Polio Pain
Begin a stretching routine, with guidance from a therapist. Due to nature of post-polio symptoms, some tight muscles may help maintain stability of joints and help maintain balance.
- Overuse Pain
Rest from exercise and use ice/heat to sooth aching muscles. Physical therapy can help with muscle release and with stretching for relief.
- Biomechanical Pain
Improve posture and address mechanical abnormalities. Use assistive devices to aide in relieving pressure on affected joints. Seek orthopedic options including braces, supports, and shoes.

Keeping up with Cardio

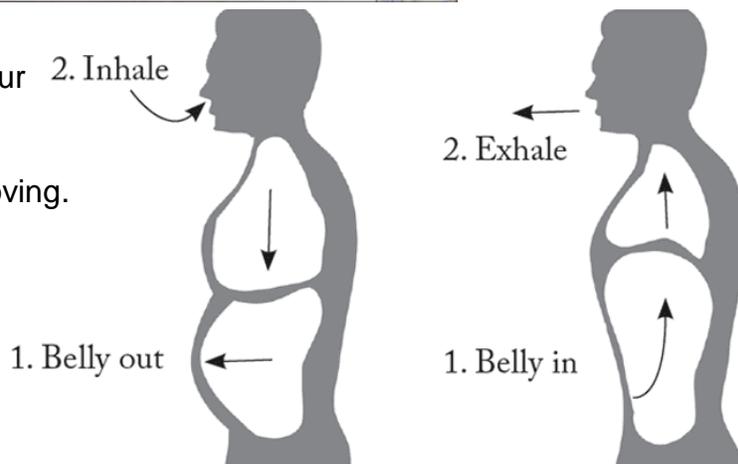
- Cardiovascular health should be addressed in an individual manner as everyone has different groups of muscles affected.
- As a general rule, utilize your least affected muscles for cardiopulmonary exercise.
Ex: Walking, treadmill and recumbent bike when working lower body (and) arm bike and water aerobics when working upper body

Breathing

- Pursed Lip Breathing
Breathe in through the nose, and twice as long out through the mouth.
Control each breath - "Smell the roses, blow out the birthday candles"



- Diaphragmatic Breathing
 1. Place one hand on your chest, one hand on your belly.
 2. Breathe in and feel your bottom hand rise with the inhale, and try and limit your chest from moving.
 3. Take a slight pause between each breathe.



Energy Conservation: The Goal

Decrease in the amount of energy used during daily activities leads to an increase in overall functional participation in activities of daily living. There are 8 main principles which can be applied to everyday life.

1. Limit the amount of work you set for yourself
2. Plan ahead
3. Organize your storage and work space
4. Sit to work whenever possible
5. Use correct equipment
6. Use efficient methods
7. Plan and include rest breaks in your day
8. Use correct body mechanics

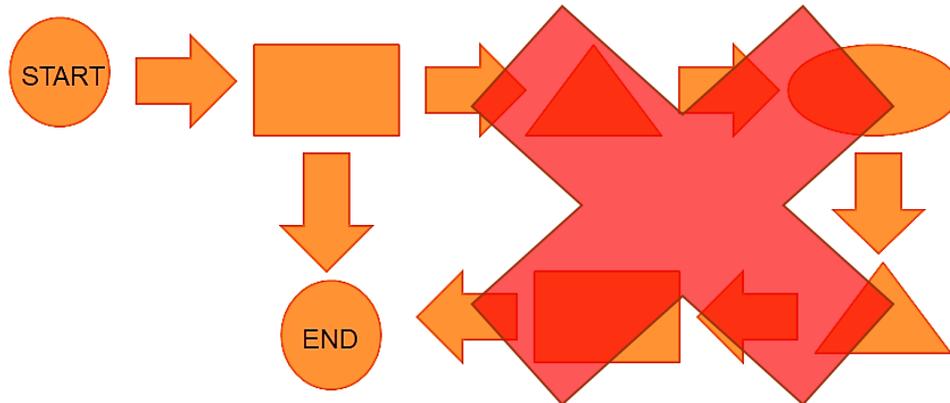
Incorporating these 8 techniques into your routine can help you save energy and achieve more during the day without causing fatigue or decreased independence.

Know your Energy Level

- Be aware of how much energy certain tasks are using.
- Plan your most tiring tasks for later in the day so you don't empty your tank too early.
- Avoid "Boom and Bust" energy levels
Overworking when you have more energy but then feeling extremely fatigued faster can have an adverse effect to productivity.
- Schedule rest breaks

Apply Work Simplification to your own Routine

Work Simplification is the act of performing a task in the easiest way to conserve time and energy.



Don't Multitask - Avoid getting pulled in too many directions by doing too much at one time

- Cooking
Buy pre chopped vegetables or shredded cheese. Freeze commonly used ingredients to thaw and use at a later time
- Dressing
Lay out clothes and work in rest breaks. Dressing our lower body uses more energy, dress this second after taking a little rest after dressing your upper body.
- Shopping
Ask your local store for a map of their layout to plan your shopping trips.
- Cleaning
Put misplaced items into organized bins and put them away at a later time, as opposed to going from room to room to put items back during cleaning. Separate laundry as soon as you take them off.

Rehabilitation Intervention

Occupational and Physical Therapists can create a customized plan that can help you reach your goals.

- Your therapist can also be your liaison to other healthcare and fitness providers.
- Post-Polio Syndrome presents with significant variability. It is a set of symptoms.
- You are *not* the Post-Polio Lady or Post-Polio Man. Do not allow yourself to be identified by the disease. Just listen to your body!

Pain Management and Energy Conservation Summary

- Know your body, your level of energy, and understand the things you want to do each day.
- Plan ahead.
- Maintain fitness level and health to decrease pain and increase independence.
- Reach out for assistance when needed.

A Physical and Occupational Therapist can help guide you through an exercise program and educate you on techniques for simplification.