

Poliomyelitis/Post-Polio Syndrome

Condition: Acute poliomyelitis is a virus that can invade the central nervous system and cause paralysis. Post-polio syndrome (PPS) is a progressive disorder of the nerves and muscles that can occur in survivors of paralytic polio usually after 15 or more years.

Background: Two percent of patients with acute polio develop paralysis, and about 40 percent of polio survivors develop PPS.

Risk Factors: Patients at risk for PPS are those who had a severe case of acute paralytic poliomyelitis, were older when they contracted the virus, and have a permanent impairment with some degree of disability. Weight gain, age, an increase or decrease in activity level, trauma, surgery, and joint pain also are associated with increased risk.

History and Symptoms: Symptoms of acute paralytic polio include fever and sudden onset of paralysis. PPS symptoms, which can develop suddenly or progress slowly years after the acute infection typically include new weakness, fatigue, and muscle and/or joint pain. In some cases, patients experience difficulty swallowing or breathing.

Physical Exam: In addition to confirming previous polio infection, patients undergo a physical exam to identify muscle strength, musculoskeletal problems associated with weakness, muscle imbalances or overuse (such as spine and joint deformities, tendinitis or arthritis) and to rule out other neurological conditions.

Diagnostic Process: To diagnose PPS, healthcare providers evaluate a patient's symptoms and mobility. X-rays or musculoskeletal ultrasound can assess bone and joint pain and deformities; MRI or CT scans may rule out other neurological conditions; swallowing studies and pulmonary function tests evaluate swallowing and breathing difficulties.

Rehab Management: Weight control and avoiding overuse of weak muscles may prevent or delay the onset of PPS. A physical medicine and rehabilitation (PM&R) physician evaluating problems related to post-polio syndrome may recommend pacing activity, such as scheduling regular rest periods during the day or modifying activity level. Body mechanics are optimized through exercise for targeted muscle stretching and strengthening and through prescription of orthotics and assistive devices. Anti-inflammatory medications, muscle relaxants and physical therapy may help reduce pain.

Other Resources for Patients and Families: Online resources and education materials are available from Post-Polio Health International. Local post-polio support groups also can provide information and psychological support.

Frequently Asked Questions

What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?

Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.