

Post-Polio Syndrome

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As the American population ages, there is increasing interest in the medical community in both ailments which are common in elderly people, and ones which are generation-specific. Among the generation-specific ailments which are of particular interest to physical therapists, massage therapists, and doctors who specialize in the link between the neural and musculoskeletal systems is post-polio syndrome. The worst epidemic of polio started in 1952, and tens of thousands of people suffered paralysis before Jonas Salk developed a vaccine in 1955 and it became widely available in 1957. The survivors of that epidemic have since been on the frontlines of the fight for civil rights for the disabled and often trained their bodies to compensate for loss of muscle function so they could work and enjoy a high quality of life. But as the last Americans with polio enter old age, many are suffering relapses.

How the poliovirus moves from the gastrointestinal tract to the spinal nerve tissue has never been discovered (and may never be if polio is eradicated), but it is known that the poliovirus destroys motor neurons. In many patients, this led to temporary paralysis until patients' bodies grew alternative neural pathways to restore motor function. However, these alternative pathways were never as stable as the originals, and after decades of use, some are collapsing, leaving survivors once again suffering the paralysis they had previously overcome.

Polio declined on medical researchers' priority list in between its eradication in most countries and the transitioning of the last major cohort of survivors into old age, and there is no known way of preventing post-polio syndrome. But there are complementary approaches utilizing care providers with a diverse set of specialties. Because patients' loss of muscle is due to lack of neural access, over-exercising the muscles they are losing access to may cause them to burn through their neural pathways faster instead of strengthening them. Exercise is crucial, however, for the muscle groups they are using to compensate for the ones they've lost access to, but patients may be forced to rely on different muscle groups than they are used to if the old way is no longer working.

Orthotists emphasize in their literature that every polio survivor has developed their own system, and their judgments of their individual situations must be respected when recommending braces. Much of the massage therapy for patients with post-polio syndrome is geared toward keeping the compensatory muscles they're relying on more than ever comfortable and in healthy working order while ensuring that the declining muscles are getting as much nutritional support as possible. It is important when considering complementary forms of pain relief that damage to motor neurons does not necessarily mean there has been damage to sensory neurons, and what is effective for one system may not be relevant to the other. However, people without sensory damage can provide much more information about what is happening to them and have treatments modified accordingly.

Post-polio syndrome is diagnosed through a process of elimination—a person who had polio can still come down with completely different diseases, after all. The exact composition of a patient's care team will depend on their individual needs, but there will surely be a place for physical therapy and providers

of treatments which complement them. Chiropractic and wellness centers also vary in which services they offer, but most provide a large number of treatments which enhance or are central to physical therapy and maintaining a high quality of life.