

PPS Simplified by Polio Quebec

www.polioquebec.org/en/polio-et-spp/causes-et-symptomes-du-spp

Symptoms

Most common symptoms

Many symptoms can accompany post-polio syndrome (PPS). Although none can, by themselves, be a definite diagnosis of PPS, the most common symptoms are:

- *Severe* tiredness;
- *New pain*, muscle and joint;
- Reduced stamina;
- *Breathing difficulties*, increased shortness of breath, increased respiratory infections;
- *Sleeping troubles*
- *Feeling cold* when others are hot, sometimes accompanied *by burning and tingling sensation*;
- *Change in lifestyle* (need for orthopedic devices or a ventilator);
- *Stress*, period of *anxiety* and *depression*;
- *Dysphagia* (difficulty swallowing, blockage felt when eating).

The new weakness

New weakness, which is one of the most recurrent symptoms of PPS, occurs, with or without muscle loss, in approximately 20-40% of patients who have had polio. This increased weakness can cause instability in the joints resulting in various deformities and sometimes causing an unbalanced gait.

Tiredness

Fatigue, the most obvious manifestation of PPS, presents itself in two ways: **general fatigue and localized muscle** fatigue. Many patients immediately suffer from total exhaustion following brief physical activity, known as *“the polio wall”*. Muscle fatigue is manifested by a gradual loss of muscle strength during continuous activity. This fatigue disappears with rest.

Symptoms related to fatigue are: increased need for sleep, concentration problems, reduced resistance which leads to a change in lifestyle. In addition, people with a respiratory problem may experience a variety of other symptoms such as: increased shortness of breath, sleep disturbances, confusion, difficulty concentrating, etc.

These different types of symptoms can be grouped as follows:

- **General:** Weakness and/or increased fatigue, decreased endurance for daily activities, lifestyle change (need brace or ventilator), imbalance, excessive weight gain, period of anxiety and depression (caused by decreased physical resistance).
- **Neuromuscular:** Increased joint pain and deformity, muscle aches, muscle twitching, new muscle weakness, increased fractures (caused by weakness).
- **Respiratory:** Increased shortness of breath, increase in respiratory infections, language difficulties, sleep disorders, confusion especially on waking, difficulty concentrating.

The new pain (patient tells an interested doctor)

The new pain **is** the main symptom in some patients, especially in the muscles and joints. This pain is related to physical activity. Another pain, that of deep burning of bones and muscles, is not necessarily related to a particular activity; on the other hand, it is the most difficult to treat.

Keep in mind

- The PPS is not necessarily permanent; another period of stability can be experienced.
- Muscle disuse or underuse can resemble the symptoms of PPS. Indeed, inactivity can cause a reduction in muscle strength, as well as a loss of endurance.
- The loss of neuro-motors resulting from normal aging can also make the situation worse.

More Frequent Diseases

Some diseases occur more frequently in people who have had polio than in the general population:

- **Sleep apnea (problem breathing during sleep)**
 - It can cause daytime fatigue, morning headaches, nightmares, snoring, and difficulty concentrating and irritability.
 - It can be diagnosed at a sleep clinic and treated quite easily.
- **Fibromyalgia**
 - It can cause chronic, widespread pain all over the body.
 - It can be treated with certain medications, aerobic exercises, etc.
- **Osteoporosis (loss of bone mass)**
 - It increases the risk of bone fractures.
 - It can be treated with several drugs.

Any treatment for these polio-associated disorders can help relieve the symptoms experienced.

Psychological impact

Finally, the psychological impact of PPS on the individual should not be ignored. PPS can also be the cause of introversion, isolation, anxiety and frustration in affected people since:

- Symptoms arise unexpectedly;
- The cause is often unknown;
- The person must face ignorance and misunderstanding of the problem in the medical and paramedical world (erroneous diagnoses, denial of the doctor in the face of the concerns expressed, etc.);
- It is sometimes difficult to face reality with new limits.

Diagnostic

It is difficult to establish a diagnosis of the PPS since it is an exclusion syndrome (the doctor must carry out a process of elimination of the other factors), that few doctors are aware of its existence, and that several of the symptoms may be confused by the patient with those resulting from normal aging.

The diagnosis of PPS requires the patient's history as well as a physical examination. The doctor can check muscle strength and amount of movement in each joint, then electromyography can check for prior loss of motor neurons (macro EMG).

The *PPS Task Force* led by Dr. Cashman in 1997 drafted the diagnostic criteria for PPS. PPS is diagnosed when there is:

- A credible medical history of acute polio;
- A period of functional stability following the original polio condition (regardless of degree);
- A recent functional change (in the last few months);
- An electromyogram confirming further degeneration.

Treatment and prevention

There is, to date, no cure for PPS; it is therefore necessary to try to slow down the process and relieve the symptoms.

- **Stay positive**
- Change your lifestyle
 - **Rest** to avoid a marked decrease in your abilities. Avoid stress. Use means and tools to avoid fatigue and pain.
 - **Stay in shape** (without abusing your exercises; favor the axiom: "spare to preserve").
 - Set realistic goals. **Respect your body.**
- Find out about the **medications** that can help you (eg to relieve pain). Beware of side effects related to your situation (eg anesthesia)
- Use **technical aids** (such as canes, crutches, orthoses, wheelchairs or other devices that can make your job easier).
- **Sleep well.** Eat well.
- **Avoid being overweight.**