

## Criteria for suspecting Post-Polio Syndrome and Late Effects of Polio

- A prior episode of polio confirmed by medical history or obvious polio paralysis
- Residual motor neuron loss
- Years of functional stability after the acute illness
- Gradual or abrupt onset of new weakness
- Generalised fatigue leading to exhaustion, which may also have psychological effects

## MANAGEMENT

Polio survivors often require

- Less *general* but more *local* anaesthetic and more pain relief than average.
- Care when prescribing muscle relaxants, analgesics, sedatives and anti-cholesterol drugs which can increase muscle weakness and impair respiration.
- Briefer, gentler, individualised physiotherapy and exercise programmes to avoid further damage.
- Regular monitoring of gait and posture to identify and manage any functional decline.
- Assistance with mobility, transfers, body care and positioning.

## ASSISTANCE FOR THE PATIENT

Polios generally are Group A people who have strived to become productive and independent. Many are noted for "over-achieving" after their efforts to overcome early disability. Patients need to learn how to conserve energy by pacing themselves. Rest and activity-pacing are effective treatments for fatigue.

Aids such as orthoses, wheelchairs and scooters should be provided where needed to help polio survivors with mobility difficulties. For patients with breathing difficulties, non-invasive ventilation may be required.

The national Post-Polio Support Society is working towards establishing, through the health system, specialised multi-disciplinary assessment and care planning.

There are 23 post-polio support groups throughout New Zealand and a national freephone -- 0800 4 POLIO (0800 476 546).

Other useful information, newsletters and links are provided on the PPSS website [www.postpolio.org.nz](http://www.postpolio.org.nz)

Mailing Address:

Post Polio Support Society of NZ (Inc)  
P O Box 249 Oamaru 9444

# POST-POLIO

## Information for Health Professionals

***POLIO LIVES ON.....***



***.....IN ITS SURVIVORS***

### The late effects of Poliomyelitis



**POST POLIO SUPPORT SOCIETY  
of New Zealand (Inc)**

**[www.postpolio.org.nz](http://www.postpolio.org.nz) 0800 476 546**

**Medical Adviser: Dr Liz Falkner  
MB, BS(Lon), LRCP(Lon), MRCS(Eng)**

# **POLIOMYELITIS IS STILL AN ISSUE**

Most doctors and health professionals have never seen a case of poliomyelitis, which affected several thousand New Zealanders from 1922 to 1962. Immunisation was introduced in 1957 and there have been no NZ "wild" poliovirus cases since then. Many early patients are now affected either by late effects or by Post-Polio Syndrome. It is important that you know about the late effects of polio and understand the underlying aetiology and pathophysiology of the symptoms.

Poliomyelitis is an acute illness following gastrointestinal infection by one of the three types of poliovirus. The initial severe, flu-like illness is followed by floppy paralysis which varies greatly in extent. One in 200 infections leads to irreversible flaccid paralysis consequent to motor nerve damage. Sensation is unaffected. There is anecdotal evidence that some people who were not obviously paralysed at the onset may still demonstrate weakness later in life.

Polio was considered to be a chronic yet stable condition once the acute phase was over and rehabilitation had restored some degree of function. Medical textbooks until recently attributed three distinct stages to

polio -- acute illness, recovery period and stable disability.

However it is now known that many polio survivors develop new symptoms after decades of functional stability.

## **POST-POLIO SYNDROME**

Most people with polio start to experience a marked increase in problems 35 to 45 years after the initial attack. PPS/late effects is recognised as a diagnosis of exclusion. All other possible medical, neurological or physical conditions MUST be investigated and ruled out. A patient may present with some or all of the following signs and symptoms:

- 1 **Deteriorating muscle function**
- 2 **Joint and/or muscle pain**
- 3 **Muscle atrophy**
- 4 **Intolerance of cold or heat**
- 5 **Dysphagia**
- 6 **Breathing/speech problems**
- 7 **Sleep disturbance**
- 8 **Muscle twitching (fasciculation)**  
-- restless legs
- 9 **Unusual and incapacitating fatigue**
- 10 **Increasing falls, worsening gait and increasing need for mobility aids**
- 11 **Anxiety and depression due to stress about increased impairment.**

**Some patients may describe some of these symptoms and actually "forget" to tell you that they had polio.**

Be aware that there are consequences to having had polio that might not fit all the criteria. Polio survivors may be reporting a variety of neurologic, orthopaedic, medical, musculoskeletal and emotional complaints -- all of which need to be methodically considered and not dismissed simply as signs of ageing.

## **THE PROCESS OF MOTOR NEURON CELLS TAKING OVER DISEASED MOTOR UNITS**

**In the acute polio stage, nerve fibres supplying muscles died in various quantities. In later recovery, motor nerve fibres budded to supply many more muscle nerve fibres than usual. Thus one nerve cell in the spinal cord might supply a hundred muscle fibres in the thigh instead of 10, as it was designed to do. Each "giant" motor unit has to produce much more acetylcholine, the neuro-muscle transmitter, for the rest of its life.**

