

Anaesthesia and Surgery

- Anaesthesia is used to prevent pain
- Careful planning and awareness will help to make sure you are safe during surgery
- New drugs and techniques have reduced the risk of side effects and complications

Anaesthesia prevents pain, making surgery possible. Specialist anaesthetists train for at least 7 years after they finish their medical degree.

Types Of Anaesthesia

There are 3 main types:

- **General Anaesthesia:** involves complete loss of consciousness
- **Regional Anaesthesia:** numbs part of the body. Examples are an epidural block or a nerve block to a limb. It may be combined with sedation to ease anxiety and possibly put you into a light sleep
- **Local Anaesthesia:** involves numbing a smaller area

Special Considerations For Polio Survivors

Polio survivors are different from other patients. Your anaesthetist and surgeon should know about your medical history. Also tell them any concerns you have from past experience with surgery and anaesthesia.

Lung Function

Your medical team need to know about any breathing problems you have had. This could be when you first had polio, or more recently. These may include:

- Did you need an iron-lung or other help with breathing?
- Do you have any breathing difficulty at night, excessive snoring, or use a C-PAP or Bi-PAP machine?
- Do you get breathless at rest, or with slight exertion?

- Do you get very sleepy or fatigued during the day?

Based on your medical history and current symptoms, you may need to have lung function tests.

Brain Stem Effects

In some polio survivors, the brain stem has been damaged by the poliovirus. Symptoms are different for everyone. If you have any signs or symptoms, you should discuss them with your medical team. Some examples are:

- Cold intolerance
- Abnormal heart rhythm or blood pressure
- Swallowing difficulty, reflux or tendency to choke



Loss Of Motor Neurones

Polio can cause damage to the brain stem and destroy motor neurones in the spinal cord. A motor neurone has a cell body and a long nerve fibre (axon), which sends branches to muscle fibres. The axon conducts electrical impulses to make the muscle work, providing strength and movement. Muscle cells die if they lose this nerve supply. After polio, many muscle cells are rescued when nearby axons sprout new branches and connect to them. This means that those surviving motor neurones may now supply up to 4-10 times as many muscle cells as before. They must work harder than they normally would.

The ongoing survival of your motor neurones becomes very important for maintaining muscle strength. This factor is one of the many that will guide the medical team in planning your care.

The Choice Of Your Anaesthetic Care

You, your anaesthetist and your surgeon should all understand your health condition. This will help in planning the best and safest anaesthetic care. The development of newer methods, better anaesthetic drugs and more sophisticated monitoring all help to make surgery safer.

Recovery From Operations

Planning well gives you the best chance for a safe experience and a fast recovery. Getting your energy and strength back may take some time. It might need extra planning, patience and realistic goals. A good home support plan will help to keep you on track for recovery. This may include planning for aids and equipment, and organising health professionals who know about polio.

Some topics to discuss with your medical team about your surgery and recovery may include:

- Strengthening and conditioning exercise to do before surgery
- The right body position during your operation
- How to keep warm during and after surgery
- Making sure your rehabilitation team are aware of the late effects of polio, especially muscle weakness and fatigue
- Home support assistance

More Information

- Talk to your doctor prior to any surgery or anaesthetic
- [ANZCA Bulletin on Post-Polio Syndrome](#)
- [St Vincent's Hospital Anaesthesia and Surgery: A guide for people with a history of polio](#)

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