



Surgery

Approximately half of all severe brain injuries will need surgery to remove or repair hematomas or contusions. These are often emergency procedures. In other cases, as with some brain tumours, more time is available for surgery.

In this article

- Prior to surgery
- Neurosurgery

Prior to surgery

Prior to surgery a doctor will, when possible, seek informed consent from the patient. Informed consent means understanding the costs, benefits and possible adverse outcomes of surgery.

There are many tests done prior to surgery. Not all of them relate to the brain as the doctor will ensure your other organs are capable of surviving surgery.

Patients can be anxious the night prior to surgery and have trouble sleeping. Medication can be prescribed to ensure a good night's sleep.

Neurosurgery

A neurosurgeon specializes in treatment and surgery of the nervous system and surrounding structures.

Neurosurgeons operate on the brain, skull, scalp and spinal column. One of the most important roles the neurosurgeon performs is the prevention of further damage to the brain. This is accomplished in several ways.

Swelling will cause parts of the brain to compress within the skull. This compression decreases the blood flow and oxygen to parts of the brain which causes more swelling. A neurosurgeon can remove blood clots pressing on the brain and surgically repair damaged blood vessels to stop any further bleeding. In severe cases, portions of the brain damaged beyond recovery may be removed to increase the chances of recovery.

The neurosurgeon can also insert an intracranial pressure monitoring device. This alerts the medical team if swelling reaches dangerous levels. A ventricular drain may also be used to drain off excess fluids.