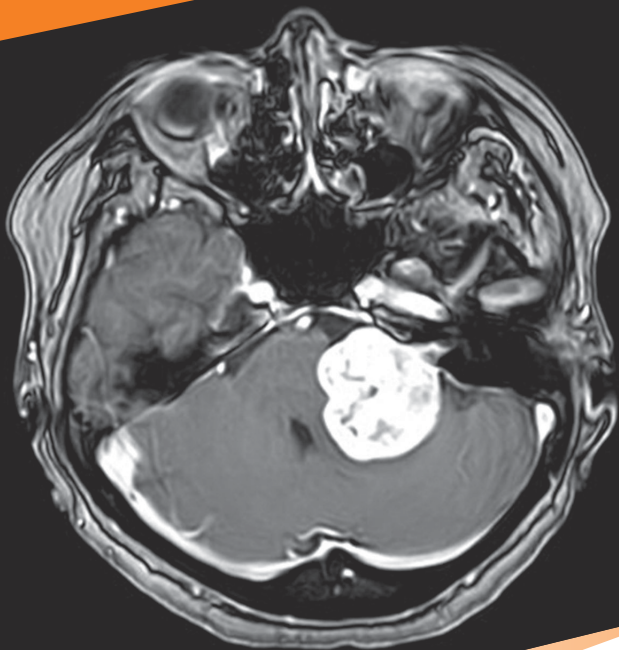


Neurosurgery Department



Brain Tumours

# Acoustic Neuroma



National  
Neuroscience Institute

SingHealth

## Understanding Acoustic Neuromas

An acoustic neuroma is a non-cancerous growth that occurs near the facial nerve. They are slow-growing and may remain the same size for years for some patients. In a small number of patients, the tumour becomes smaller with time.

## Signs of Acoustic Neuromas

Signs vary and include:

- One-sided deafness, with noise in the affected ear (tinnitus). The deafness may be gradual or sudden and is experienced by 90% of patients
- Inability to understand speech i.e. one can hear sounds but cannot understand what is being said
- Unsteady gait and poor balance
- Facial numbness and weakness
- Swallowing problems

## Diagnosing Acoustic Neuromas

Auditory tests can reveal loss of hearing and the inability to understand speech.

A Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) scan can show the presence of an acoustic neuroma, even those that are still in the internal ear canal (Figure 1).



Figure 1  
Area inside the inner ear where tumours grow

## Risk Factors

Those with rare genetic defects e.g. tumours growing on nerve tissues (neurofibromatosis) may be at a higher risk.

## Treating Acoustic Neuromas

### Surgery

Surgery may be required for patients with very large tumours causing severe brain compression and increased brain pressure.

A neurosurgeon and sometimes a ear, nose and throat surgeon will determine if surgery is suitable, depending on the size and location of the tumour, and the health of the patient.

During surgery, fat or muscle may be taken from the abdomen or thigh to close the wound. After surgery, the patient will usually spend one to several days in the intensive care unit for monitoring and treatment.

Depending on the location of the tumour, side effects of the surgery may include hearing loss, facial weakness, paralysis, double vision, swallowing problems, mouth dryness, and unsteadiness.

The likelihood of unexpected complications is generally low but include infection, bleeding, stroke, seizures, paralysis of limbs, coma and death.

### **Radiation Therapy**

Smaller tumours are usually treated by radiation. A high and precise dose of radiation is aimed at the tumour, with no or low damage to surrounding brain structures.

## **Support for Brain Tumours**

### **Brain Tumour Society Singapore (BTSS)**

BTSS is a community of brain tumour patients, caregivers and survivors. The BTSS provides community support and resources such as befrienders, financial assistance and public education. Started by brain cancer survivors, BTSS meets once a month so that members can share experiences and advice on how to cope with the disease.

For more information, visit  
[www.braintumoursociety.org.sg](http://www.braintumoursociety.org.sg).

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