

Acoustic Neuroma

Information for patients



An Acoustic Neuroma is a benign, non-cancerous tumour, which is usually slow growing and has developed over a number of years. It does not spread from its original site within the brain.

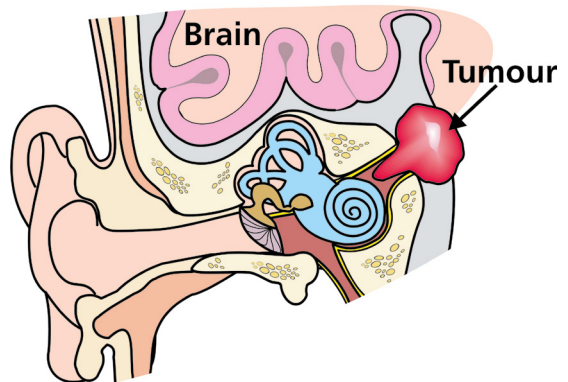
On average, Acoustic Neuromas grow 1-2 mm per year, though many do not grow at all, and some can grow faster than this. The cells that form an Acoustic Neuroma are called Schwann cells (so it is sometimes called a Schwannoma). They make up the lining of the eighth cranial nerve as it passes through a tiny canal which connects the inner ear to the brain.

The eighth cranial nerve is called the auditory/ vestibulocochlear nerve (also known as the vestibular or acoustic nerve). The vestibular nerve is responsible for balance and the auditory nerve is responsible for hearing.

Unknown events lead to an overproduction of Schwann cells and as they multiply they form a small tumour which fills the canal.

As the tumour expands, it extends towards the brain, growing in a pear shape and putting pressure on the nerves and brain.

60-70% of Acoustic Neuromas do not grow after diagnosis.



Symptoms of an Acoustic Neuroma

Symptoms usually start with hearing loss on one side, due to the tumour interfering with the function of the hearing nerve as it grows. Hearing loss is usually gradual and therefore you may not have noticed the hearing loss in the early stages. Hearing loss can often occur even without the tumour growing due the damage it has caused to the nerve.

Other symptoms can include tinnitus on one side, imbalance and dizziness:

- Tinnitus is a sensation of ringing in your ears. With Acoustic Neuromas the tinnitus will occur on the same side as the tumour is located. Tinnitus can be constant or intermittent and is usually more noticeable at night.
- Dizziness can occur due to the damage of the vestibular nerve caused by the tumour.
- Balance problems can also occur due to the damage of the vestibular nerve caused by the tumour. As this usually occurs slowly, the body can adapt and compensate to the change, meaning that some people barely notice any change in their balance.

Facial numbness is an uncommon symptom with small tumours, and can occur due to the Acoustic Neuroma pressing on the Trigeminal nerve which is responsible for facial sensation.

Sizes of acoustic neuromas

- Small less than 1.5 cm
- Medium 1.5-3 cm
- Large more than 3 cm

How is an acoustic neuroma treated?

There are three treatments for an acoustic neuroma. The best course of treatment for you depends on a number of factors including your general health, your age, the size and the position of the tumour, your hearing and your feelings about the best treatment.

Observation and monitoring

Acoustic neuromas are slow growing tumours. Because of this, careful observation may be a reasonable option for managing these growths. In these cases the tumour is usually monitored using the MRI surveillance pathway for Acoustic Neuromas. This involves having interval MRI scans performed at 1, 2, 3, 5, 7 and 10 years after your first initial MRI scan.

The growth rate of the tumour may be so slow that it will never have a serious effect within a person's lifetime. In some cases it may not grow at all. If you are very young it is more likely that the tumour will one day require treatment, if you are older then this is less likely.

Please be aware that following an interval scan, you will receive a letter with the result of your MRI and a plan for follow up. This may be a further interval scan or you may be sent an appointment to attend clinic.

Radiosurgery

Stereotactic radiosurgery is a non-invasive technique for treating brain tumours using a machine called the 'Gamma Knife'.



The effect of Gamma Knife radiosurgery is to stop the growth of the acoustic neuroma by delivering radiation precisely to the tumour. Around 90-95% of tumours stop growing with radiosurgery.

Radiosurgery is completed in one visit to the hospital and you do not need to stay overnight. Side-effects of Gamma Knife are rare, but will be discussed with you. After radiosurgery patients are quickly able to return to their usual routine.

Stereotactic refers to the use of a metal frame which is fitted to your head by metal pins after a local anaesthetic injection. The metal frame remains in place during the radiosurgery to ensure that your head remains in the same position during the treatment.

This treatment option is limited to patients who have a tumour size of less than 3cms.

If you are referred for Gamma Knife you will first have a telephone appointment with a consultant to discuss radiosurgery and receive further information.

Surgery

The decision to perform surgery is made following consideration of various factors including tumour size, your age and overall health. If left untreated, the tumour may continue to grow where it can press on the brainstem and the nerves surrounding it. At this stage, you may experience symptoms such as; headaches, facial numbness and loss of co-ordination. As acoustic neuromas grow so slowly this allows a generous period of time to detect it and plan surgery if required.

There are two surgical approaches used at Leeds Teaching Hospitals. The translabyrinthine approach is performed by a Consultant Neurosurgeon and Consultant Ear, Nose and Throat (ENT) surgeon. The retrosigmoid approach is performed by a Consultant Neurosurgeon. The operation will take approximately 8-12 hours.

Surgery does carry risks, some of which are common to all operations. The risks will be discussed in more detail by the Consultant during your clinic appointment, where you will also have the opportunity to ask any questions.

Can I drive?

Yes you can drive unless told otherwise.

Can I travel/fly?

Yes you can travel and fly. You should inform your insurance company you have a benign tumour.

Meet the team

- **Mr Sanjay Verma** - Consultant ENT Surgeon
- **Mr Kenan Deniz** - Consultant Neurosurgeon
- **Mr Nick Phillips** - Consultant Neurosurgeon and Gamma Knife Specialist
- **Alice Tonks** - Acoustic Neuroma Clinical Nurse Specialist, Tel: **0113 206 8185** - Please note this is a voicemail service, please leave a message and your call will be returned.
- For administrative inquiries including referrals and appointments, please contact the Multi-Disciplinary Team (MDT) Coordinator on **0113 39**.....

- **Lynne Skirrow** - Mr Verma's Secretary, Tel: **0113 392 2183**
- If you require surgery and are under the care of Mr Deniz and have an administrative inquiry please contact his secretary Vanessa Moss on **0113 392 3623**.

Further support and information

There are local and national charities and support groups as well as further sources of information on the internet.

The Brain's Trust

Tel: **01983 292 405**

www.brainstrust.org.uk

British Acoustic Neuroma Association (BANA)

Tel: **0124 655 0011**

www.bana-uk.com

The Brain Tumour Charity

Tel: **0808 800 0004**

www.thebraintumourcharity.org

Websites


There are many sources of information on the internet but here are a few reliable websites for information.

MacMillan

www.macmillan.org.uk

British Tinnitus Association

www.tinnitus.org.uk

A large abstract graphic consisting of a teal shape on the right and a white shape on the left, separated by a curved boundary. The teal shape is a large, irregular polygon with a pointed bottom-right corner. The white shape is a large, irregular polygon with a pointed top-left corner. The two shapes meet at a curved boundary that is concave towards the teal shape.

© The Leeds Teaching Hospitals NHS Trust • 4th edition (Version 1)
Developed by: Alice Tonks Neuro Clinical Nurse Specialist
Produced by: Medical Illustration Services • MID code: 20240805_016/EP

LN004198
Publication date
11/2024
Review date
11/2027