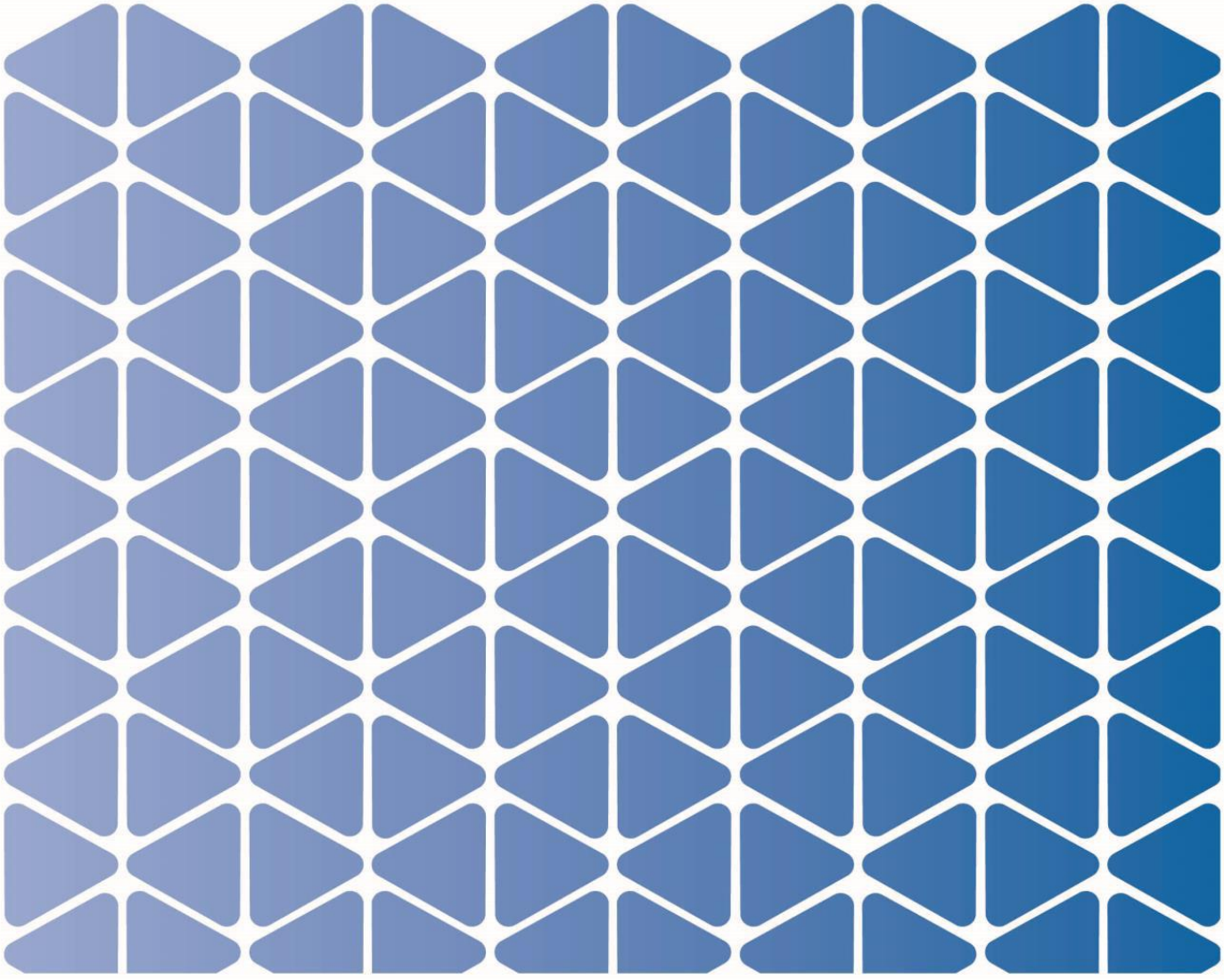
PATIENT INFORMATION

CHOLESTEATOMA AND COMBINED APPROACH TYMPANOPLASTY



What is a cholesteatoma?

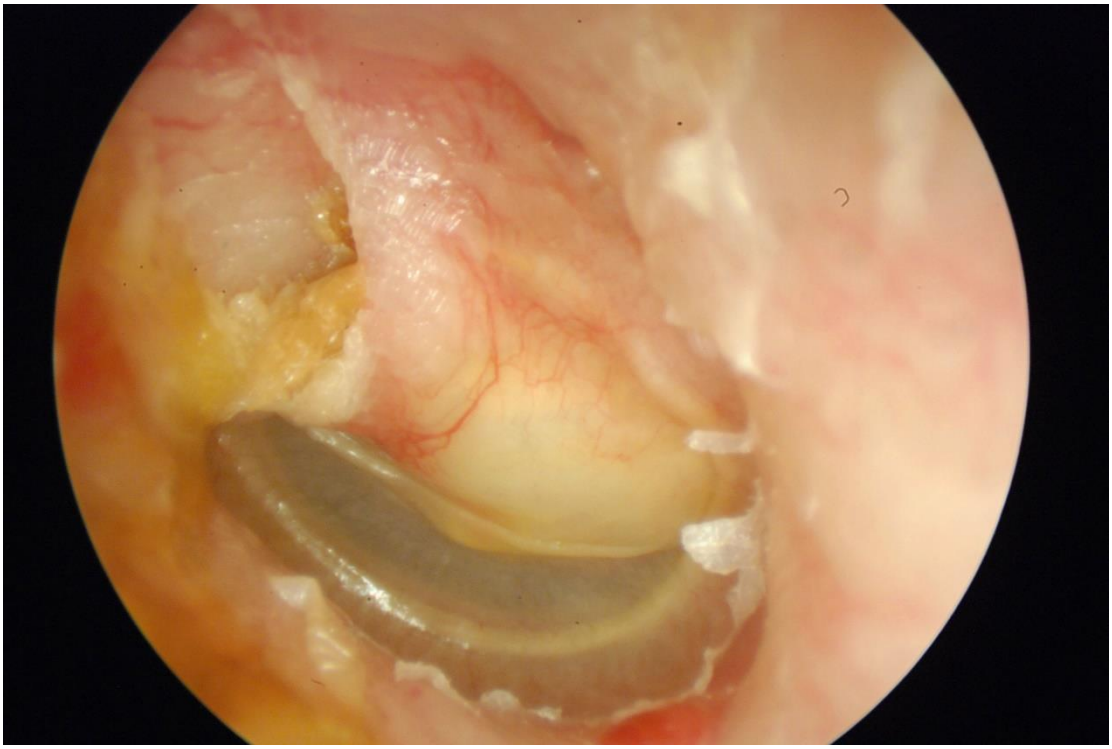
A cholesteatoma is a benign ear condition that can cause a number of different problems. Some patients will suffer from frequent infections, others from hearing loss, tinnitus (noises in the ear) or pain. Some will suffer with all of these problems. Cholesteatomas normally take some time to develop and patients may live with a cholesteatoma for years before seeing an ear specialist.

How does a cholesteatoma develop?

Cholesteatomas form because of abnormal skin migration. Ear ‘wax’ is in fact dead skin that is shed from the eardrum and then mixed with natural oils produced in the ear canal. In a healthy ear canal, new skin cells are generated at the centre of the eardrum and then migrate along the length of the ear canal where they become ear ‘wax’. Scientists have proved this by placing a dot of ink in the middle of the eardrum and then observing how the ink dot moves along the ear canal over time: after three months the dot has reached the external ear (the pinna).

In a patient with a cholesteatoma, this migration is disrupted, usually because the normally cone-shaped eardrum has been sucked inwards (‘retracted’) due to abnormal pressure or inflammation in the middle ear (the space behind the ear-drum). When this happens, skin migrating from the centre of the eardrum can become trapped and build-up into a cyst.

The white cyst shown below is a cholesteatoma:



What can happen if cholesteatomas are not treated?

If left untreated, cholesteatomas will continue to grow. As it grows, it can damage nearby structures, eroding bone and allowing the spread of infection.
These structures include:

- The ossicles (‘little bones of hearing’) these bones carry sound from the eardrum to the inner ear. If damaged, patients will not be able to hear sounds transmitted in the normal way through the air. They will be able to hear sound transmitted by vibration normally.
- The inner ear. This includes inner ear hearing and balance function.
- The facial nerve. The facial nerve is that which moves the face and its course runs through the middle ear: if it is damaged, the face appears droopy and ‘lop-sided’.
- The brain. The ear is located close to the brain and chronic infection in the ear increases the risk of infection spreading to the brain causing meningitis or a brain abscess. If a patient with a cholesteatoma develops symptoms of these conditions (severe headache, high fever, neck stiffness), it is important that they inform doctors looking after them that they have a cholesteatoma.

It is important to realize that these complications can take months and years to develop.

How can cholesteatoma be treated?

Unfortunately, there are no medicines available to treat cholesteatoma. Topical antibiotics in the form of ear drops may help for a short time if the cholesteatoma is infected, but they are not a permanent solution.

In some cases, where patients are unfit for surgery, treatment with regular microsuction (cleaning using the microscope) is possible.

In most cases, surgery is the only option.

Surgical treatment of cholesteatoma: Combined Approach Tympanoplasty

The aim of surgery for cholesteatoma is to remove all diseased skin from the middle ear and mastoid area (the cavity behind the ear) and then to rebuild the eardrum and hearing mechanism so that skin can migrate healthily and the ear hears normally. During the operation, the surgeon ‘approaches’ the middle ear form the ear canal *and* from behind the ear in the mastoid region: this is the reason for the term ‘combined approach tympanoplasty’.

What does Combined Approach Tympanoplasty surgery involve for me?

Before the operation:

This surgery is carried out at either Worcester or Kidderminster and you will be asked to attend a pre-operative assessment clinic before surgery to make sure that you are medically fit for the procedure. This visit will often involve some investigations (blood tests, ECG trace). You will be able to ask a nurse any questions you have at this point.

On the day of surgery:

The procedure involves a general anaesthetic and you will be asked to starve either the night before surgery or after an early breakfast, depending upon what time your surgery is planned. You will be given a time to attend hospital and on the ward will meet the nursing staff and theatre team looking after you.

The operation:

The operation takes about 2-3 hours: you will be asleep under general anaesthetic. An incision is made behind the ear in the line of the skin crease. In order to expose the mastoid cavity, the bone overlying the area is drilled away (later you will feel a divot behind your ear). When you wake up, you will have a bandage on your head. This will stay in place for at least 2 hours in order to keep pressure on the wound. If all is well, you will be able to go home 3-4 hours after surgery. You must not drive within 48 hours of surgery and should have somebody at home to look after you. You will have a light dressing over the wound and under this will see yellow gauze packing in your ear. This gauze will remain in place until removed in clinic. Often one or two pieces of gauze will drop out before you are seen: this is normal and does not affect the outcome of surgery.

Recovery and 'dos and don'ts':

Recovery times vary, but most patients will not feel able to work or study for about 2 weeks after the operation.

- Wound care. Keep the wound clean (dab gently with clean water and avoid dirty environments in the first two weeks). Ensure that no-one grabs your ear (this is especially important for children!) The wound will take three months to fully heal and contact sports should be avoided for this time, although some patients taking part in sports with medium risk of trauma may wish to use a 'scrum-cap' after one month.

- Some swelling of the wound with redness is to be expected but if it becomes inflamed, red and painful, there is a possibility it may be infected. If so, please contact your surgeons' secretary who will arrange for you to be seen.
- Flying is best avoided for 6 weeks after surgery.
- Swimming should be avoided until you have seen your surgeon for the first time after surgery
- Your ear may feel strange and you may wish to 'pop' your ear: try not to do this; it can affect the way the eardrum heals.

Follow-up

You will be seen to remove the ear canal packing after 3-4 weeks. It is necessary to carry this out under general anaesthetic if the patient is very young, but most adults and older children will tolerate this procedure in the outpatient department. After this first follow-up visit, you will be seen again on a regular basis until treatment is complete and a satisfactory outcome is achieved.

Further surgery

It is quite common that patients require further surgery after their first operation, occurring in about half of cases. In some cases, multiple operations on the same ear are required.

This is for a number of reasons:

- Healing has been poor and retraction pockets develop that could lead to further cholesteatoma.
- The surgeon has concerns that some skin may remain in the middle ear after surgery: unfortunately just one cell left behind during surgery can regrow to form a new cholesteatoma.
- It is standard practice to carry out 'second look' surgery in children due to the fact that the risk of recurrence is higher in these cases.
- Sometimes it is possible to carry out an MRI scan to look for evidence of cholesteatoma that has regrown in the middle ear: if this is positive, further surgery is necessary.

Complications of Combined Approach Tympanoplasty

All surgery carries risks, and although these occur only rarely, it is important that you are aware of these before agreeing to the procedure.

- *Facial nerve injury*
  This is very rare (probably occurring in less than 1:1000 cases), but can happen. If this takes place, the face is paralysed on the operated side. It may be temporary or permanent, requiring physiotherapy or surgery to attempt rehabilitation.

- *Hearing loss and dizziness*
  Occasionally (in about 1:100 cases) the inner ear can be damaged, leading to a loss of hearing reserve. If this happens, the patient will feel extremely dizzy, often for a number of weeks and even months. This complication is more likely to occur is the cholesteatoma has already caused damage to the inner ear.

- *Taste disturbance*
  A small nerve that carries taste sensation runs through the middle ear and it is quite common that this nerve is damaged during surgery. This may lead to a sensation of a metallic taste in the mouth. The symptom usually settles after about three months.

- *Ear numbness*
  The incision behind the ear cuts through a number of very fine nerve fibres and this leads to a loss of sensation over the ear. Unfortunately this is unlikely to return, but it is something that patients say they get used to in time.

- *Chronic pain*
  Occasionally, patients complain of chronic (long-lasting) pain following surgery. This will often settle without intervention, but sometimes requires long-term medication.

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.