

LATERAL TEMPORAL BONE RESECTION

This information aims to help you understand the operation, what is involved and some common complications that may occur. It may help answer some of your questions and help you think of other questions that you may want to ask your cancer care team; it is not intended to replace advice or discussion between you and your [cancer care team](#).

AN OVERVIEW TO LATERAL TEMPORAL BONE RESECTION

- The temporal bone is located at the side of the head, comprising the temple and the bone around the ear.
- The nerve that controls the muscle of the face runs through the temporal bone, called the facial nerve. The bone around the facial nerve will be carefully removed.
- The temporal bone may be need to be removed for cancers of the [skin](#) near the ear, in the ear, and in the [parotid gland](#).

WHY IS A LATERAL TEMPORAL BONE RESECTION NEEDED

- When cancer spreads to the temporal bone or facial nerve, a lateral temporal bone resection is performed to cut out the affected bone
 - Removal of the whole temporal bone is called a total resection
 - Removal of part of the temporal bone is called a partial resection.

HOW TO PREPARE FOR THE OPERATION

Before the operation:

- You will need to fast (have nothing to eat or drink) 6 hours before your operation (unless advised differently by your surgeon or anaesthetist) because the operation is performed under a general anaesthetic (you will be asleep and will not remember what happens during the operation).
- Your surgeon will explain the details of your operation. Be sure to bring up any questions or concerns, and share your needs and wishes with your cancer care team (see box).
- You should speak to your doctor about how to manage aspects of your lifestyle, such as smoking, drinking alcohol and chronic conditions (e.g. diabetes and obesity) that may increase the risk of complications.
 - If you take blood thinning medication for a heart condition or blood clots (such as Warfarin, Plavix, Aspirin or Pradaxa), make sure your surgeon is aware. Some of these medications need to be stopped more than a week before the operation. Sometimes a short-acting blood thinner (such as Clexane) is used before and after the surgery.
- Talk to your surgeon and [cancer care team](#) about any likely side effects you can expect following the operation. Sometimes, a lateral temporal bone resection can cause hearing loss.

Possible questions that you may want to ask your cancer care team

- How will my hearing be affected?
- Is this temporary or permanent?
- Can my hearing be improved after the surgery?
- Will my balance be affected?
- How long will it take to recover?
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Additional questions are listed at the end of this factsheet.

Visit the [Beyond Five website](#) for further information on the health professionals who may be part of your cancer care team

WHAT TO EXPECT DURING THE OPERATION

- A cut (incision) is made behind the ear and the bone is removed with a drill.
- A nerve monitor may be used during the surgery to help the surgeon protect the facial nerve. This involves placing small needles around the mouth and eye while you are asleep.
- A lateral temporal bone resection may be conducted at the same time as another type of surgery, such as removal of a skin cancer, a [parotidectomy](#) and/or a [dissection of the lymph nodes in the neck](#).
- During the lateral temporal bone resection, the affected area of bone is cut out by the surgeon. This usually means that the ear drum and bones of hearing will be removed and the ear canal will usually be closed off with tissue. Sometimes the hollow created following removal of the cancerous tissue can be filled with fat or other reconstructive tissue from other parts of your body.

WHAT TO EXPECT AFTER THE OPERATION

- After the operation, once you are fully awake, you will be moved to a bed in the hospital or intensive care unit and will be closely monitored during your recovery.
- You will have a surgical drain to clear excess fluid and blood from the site of the operation. These will be removed before you go home.
- You will have a drip in your arm to give you fluid until you are able to drink.
- Your anaesthetist and surgical team will give you medicine to help control any pain and nausea after the operation.

POSSIBLE RISKS OF LATERAL TEMPORAL BONE RESECTION

All operations carry some risks such as blood clots, wound infections, bleeding, chest infection, adverse reactions to anaesthetic, and other complications. These risks will be explained by your cancer specialist and anaesthetist.

Your doctor will explain details of the operation, general risks and side effects of the operation, they may recommend:

- stopping blood thinners (e.g. aspirin) before surgery to reduce the risk of bleeding
- a blood thinner (called heparin) may be injected before and after surgery to reduce the risk of blood clots
- antibiotics to reduce to risk of wound infection
- early mobilisation to reduce the risk of blood clots and chest infection
- special stockings to reduce the risk of blood clots.

Risks specific to this operation include:

- **Hearing loss:** Since the ear drum and hearing bones are removed in the operation, there will be some loss of hearing in that ear; this maybe partial or total. It will be necessary to test your hearing before surgery.
- **Tinnitus:** This is when there is an awareness of noise that is not present externally. Tinnitus or ringing in the ear is possible with hearing loss or other ear surgery, but does not happen in all cases. This can be bothersome to some patients but is not harmful.
- **Vertigo:** This is the sensation of movement, like the room is spinning, making it difficult to keep your balance. This may occur rarely in partial temporal bone resection, but is more likely in total temporal bone resection. A physiotherapist can help with your imbalance.
- **Facial weakness:** Weakness of the facial nerve may occur from a temporal bone resection or from parotid surgery and may be temporary or permanent. A facial nerve monitor is used in patients to prevent injury to this nerve; however, the facial nerve may be involved in the cancer and need to be removed.

You may already have weakness of the nerve before surgery from the cancer. If so, reconstructive surgery will be necessary and your surgeon will discuss these with you before surgery.

- **Taste:** The nerve that sends messages to the brain about taste, called the chorda tympani nerve, runs through the temporal bone. In temporal bone resection, whether partial or total, the nerve is divided. Some patients experience no discomfort whilst others may experience a temporary taste disturbance which is rarely permanent.
- **Pain on chewing:** This rarely occurs, but may be experienced in some patients as the jaw joint is located in front of the ear; it usually resolves with time.
- **Infection and bleeding:** This is possible in any operation but measures are taken to avoid this.

SIDE EFFECTS AND THEIR MANAGEMENT

As with all operations, there is a chance that lateral temporal bone resection may lead to a number of side effects. You may not experience all of the side effects. Speak with your doctor if you have any questions or concerns about treatment side effects.

Side effects common for lateral temporal bone resection may include:

- **Facial weakness:** Depending on where your cancer is located and how extensive it is, there may or may not be problems with the muscles on that side of the face. This could especially impact the eye and mouth, and therefore, may cause ulcers to the cornea (part of the eye) or problems with speaking and eating. Your surgeon may plan to do some reconstructive procedures to counter these side effects. However, if the cancer does not involve the nerve, it is rare to get facial weakness from a partial temporal bone resection alone.
- **Hearing loss:** Following surgery, your hearing on the same side may be affected. If the ear canal is closed off, you will not be able to wear a conventional hearing aid on that side. However, after the cancer has been treated, you may discuss your options with an ear, nose throat (ENT) surgeon specialising in hearing loss about options to restore the hearing. There are solutions available such as implantable hearing aids, but since the priority is to treat your cancer first, hearing restoration can be addressed at a later stage.
- **Taste disturbance:** This is usually temporary, but if your work or lifestyle requires a high function of taste (e.g. you are a cook or wine maker) you should discuss your concerns with your doctor.

- **Vertigo or tinnitus:** These risks are uncommon, vertigo generally resolves over a couple of weeks following surgery but can take up to 3 months. Recovery depends of the balance function of the other ear, your vision, how mobile you are, and if you have any disease in your joints and spine. You may get referred to a physiotherapist specialising in balance disorder if this was to occur.
- **Pain:** Your anaesthetist will give you pain medicine during the operation to keep you comfortable when you wake up, and you may continue on pain medicines to ensure pain is under control. Ensure you take pain relief medications as prescribed by your doctor and speak to your cancer care team if the pain is not under control, gets worse or if the medication causes any side effects. You may want to download further information about [pain management](#), which is available on the [Beyond Five website](#).

OTHER TREATMENT(S)

- Additional treatment(s) depend on the nature and extent of the cancer.
- Since a lateral temporal bone resection is performed because cancer has spread into temporal bone, it is likely that the procedure is done alongside another surgery for head and neck cancer, such as a parotidectomy or neck dissection.
- Head and neck cancers often require treatment with more than one form of therapy to reduce the risk of the cancer recurring. Many patients need radiation therapy after the operation, and sometimes, may also require chemotherapy. Your [cancer care team](#) will be able to discuss the likelihood of needing further treatment before your operation.

BEFORE GOING HOME

- Any particular instructions for [wound care](#) or medications will be provided to you before you go home. You may want to download further information about wound care on the [Beyond Five website](#).
- Your doctor may prescribe pain medications to help relieve the pain following the operation. Ensure you take the pain relief medications as prescribed by your doctor and speak to your cancer care team if the pain is not under control, gets worse or if the medication causes any side effects.
- You will be assessed by the team involved in your care before you go home and follow-up will be arranged with your surgeon and GP.
- Follow-up may also be arranged with any other allied health professionals that may assist you with supportive care.
- Your recovery at home may vary and you should allow time for your body to recover and heal. Regular follow-up helps to assess your progress.

FOLLOW-UP CARE

- After your operation, you will continue to have regular follow-up visits with your specialist doctor and cancer care team. Most patients with head and neck cancer will be monitored for five years after surgery, sometimes more.
- Any additional reconstruction, cosmetic procedures or treatments that you may need are planned after discharge. This enables time for you to recover from the initial operation, get results of the pathology that examined the tissue removed at the operation, and make the arrangements for any additional treatment or next steps.

For further information about the operation for cancer and what to expect, you can also refer to [Understanding Surgery: a guide for people with cancer, their families and friends](#).

QUESTIONS TO ASK YOUR DOCTOR

- What type of cancer do I have? Where is it located?
- What lifestyle changes (diet, exercise) do you recommend I make?
- What are the chances that the surgery will cure the cancer?
- What will happen if I don't have the resection?
- How long will the operation take?
- How long will I be in hospital and how long do I need off driving, work and exercise?
- What are the possible side effects of treatment? How can they be prevented or controlled?
- When will I get the pathology results?
- Will I need any extra treatment?
- What follow up tests will I need after the operation?
- How much will the operation cost? Will my health insurance cover it?
- Am I suitable for any clinical trials?
- If I wanted to get a second opinion, can you provide all my medical details?

You may want to write additional questions here to ask your doctor or cancer care team

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