



**HEAD & NECK CANCER**  
AUSTRALIA  
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# **TRANS-ORAL LASER SURGERY**





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## TRANS-ORAL LASER SURGERY

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 TRANS-ORAL LASER SURGERY

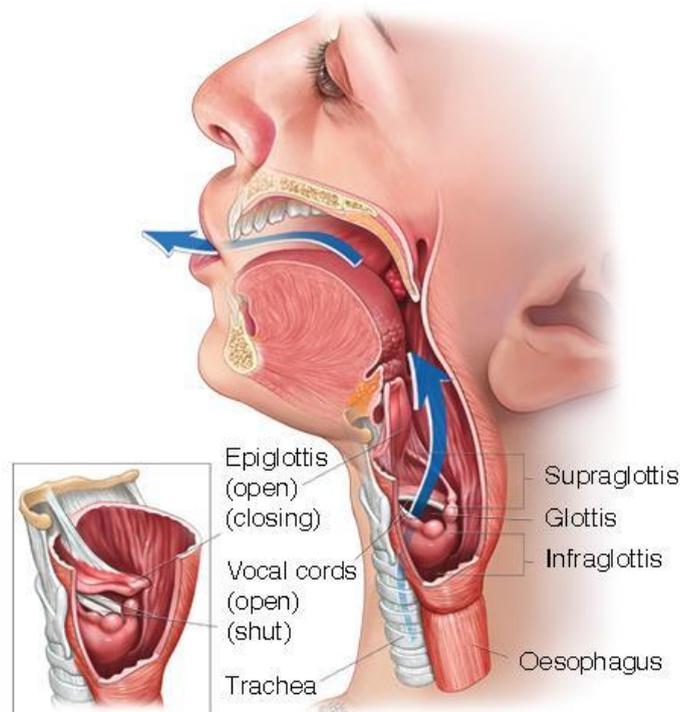
- Trans-oral laser surgery (TOLS) uses a special laser (beam of light) to remove cancers. Your surgeon will use an endoscope and microscope to see the cancer. The special laser is attached to the microscope to remove the cancer.
- Trans-oral laser surgery is a minimally invasive surgery, which means the cancer is removed without external incisions (cuts).

### WHY IS TRANS ORAL LASER SURGERY NEEDED

- Trans oral laser surgery is used to remove a cancer from the mouth or throat from areas that are usually hard to reach, such as the voice box (see picture below).
- Not all cancers are suitable for removal by laser surgery, and it is only available in some hospitals. Your surgeon will advise whether TOLS is suitable for you.
- Sometimes, the lymph nodes in the neck may also need to be removed – this is called a neck dissection and is not done with laser surgery. This can be done at the same time as Trans-oral laser surgery or several weeks afterwards. You may want to download information about [neck dissection](#), which is available on the [Head and Neck Cancer Australia website](#).
- Under general anaesthesia, your surgeon will pass a rigid tube called an endoscope down the throat. They will use a type of laser (a carbon dioxide laser is the most common type) to remove the affected tissue. A laser is an extremely fine and hot beam of light. The laser is attached to a microscope, which will help the surgeon to see the cancer very clearly.



- To reduce the chance of any cancer cells being left behind, the cancer and an area of normal tissue surrounding it will be removed.
- Tissue removed using Trans-oral laser surgery will be examined in detail by a specialist pathologist, under a microscope to look for cancer cells and decide whether the cancer has been completely removed and whether additional treatment, such as radiation therapy is needed. Further information about [pathology reports](#) is available on the [Head and Neck Cancer Australia website](#).



## HOW TO PREPARE FOR THE OPERATION

### BEFORE THE OPERATION:

- You will need to fast (have nothing to eat or drink) for 6 hours before your operation (unless advised differently by your surgeon or anaesthetist) because TOLS is performed under a general anaesthetic (you will be asleep and will not remember what happens during the operation).

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

- How long will it take before I can eat again?
- What kinds of food should I eat after the operation?
- Will I need a feeding tube?
- When will I be able to talk?
- Will my speech be affected thereafter?
- Will I need a tracheostomy (breathing tube)?
- Is the operation painful? How will I control the pain?

Additional questions are listed at the end of this factsheet.

- 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](#).
- 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 [cancer care team](#) about any likely side effects to expect following the operation, such as problems with speech and swallowing. You may find it useful to talk to a dietitian, speech pathologist or specialist head and neck nurse about these issues.

Visit the [Head and Neck Cancer Australia website](#) for further information on the health professionals who may be part of your cancer care team

## WHAT TO EXPECT DURING THE OPERATION

- Trans-oral laser surgery usually takes about 1–3 hours, depending on how complex your operation may be. In some cases, it may be combined with a neck dissection, which will also take 2 – 3 hours.
- Once asleep, the surgeon will perform a careful examination of the cancer to help plan the surgery.
- Once the area for the surgery is exposed and clearly visible, the surgeon will use the laser to remove the cancer.

## WHAT TO EXPECT AFTER THE OPERATION

- After the operation, once you are fully awake, you will be moved to a bed in the hospital room or intensive care unit.
- Usually, you can start to drink liquids after a few hours and progress to a puree diet for a few weeks before restarting a normal diet. This depends on the extent of the surgery.

- With more extensive operations a feeding tube may be used to help maintain nutrition in the first week after the operation. You may want to download information on feeding tubes, which is available on the [Head and Neck Cancer Australia website](#).
- Your anaesthetist and surgical team will give you medicine to help control any pain and nausea after the operation.
- Patients who have Trans-oral laser surgery without neck dissection are usually well enough to go home within 1–2 days. Patients having neck dissection at the same time usually need 5–10 days in hospital.

## POSSIBLE RISKS OF TRANS-ORAL LASER SURGERY

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.

Trans-oral laser surgery may have additional risks because it involves:

- o operating around important blood vessels, there is a chance that major bleeding may occur during the operation or whilst recovering from TOLS. If you notice fresh blood in your mouth, you should contact your surgeon. If there are large amounts of blood, you may need to call an ambulance.
- o Putting pressure on your teeth and gums, there is a chance that teeth could be broken during the surgery, especially if they are loose, decayed or have been previously repaired

- o Operating around important nerves that may be removed with the cancer or they may be injured; it may affect speech, swallowing or the feeling in your tongue.

**Other risks related to TOLS that you should know about include:**

- **Infection:** The throat has lots of bacteria. These bacteria can cause an infection in the wound after the surgery. Antibiotics are given during surgery and for a day or so after, but infections can still happen.
- **A fistula:** If a neck dissection is performed at the same time as the laser surgery there is a risk that the seal separating the throat from your neck could break down causing an infection. This can be a very serious complication and might require opening a wound to allow it to drain or return to the operating room to fix the seal.

## **SIDE EFFECTS AND THEIR MANAGEMENT**

As with all operations, there is a chance that that TOLS 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 include:

- **Nausea:** General anaesthetic may cause nausea. This will settle down soon after the operation and can be treated with medications.
- **Swollen tongue:** Since the front of the tongue is pushed out of the way during the procedure and compressed, some patients find the tongue is swollen straight after surgery and the nerves can be temporarily affected, causing reduced sensation, taste and movement.
- **Sore throat:** Your throat will be sore and may require pain relief medicine for 1–2 weeks whilst raw surface (where the cancer has been removed) heals.
- **Changes in eating and speaking:** TOLS may affect eating and speaking. Many patients find it difficult to eat for a few weeks, especially if they have a neck dissection. It may be useful to have a tablet/portable device or pen and paper to write down what you want to say. The speech pathologist and dietitian will provide any assistance needed to help with your speaking and eating during recovery.

- **Pain management:** Pain is a common side effect of the operation. 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 [Head and Neck Cancer Australia website](#).

## 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 [Head and Neck Cancer Australia website](#).
- Your doctor may prescribe pain medications to help relieve 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 may want to download further information about [pain management](#), which is available on the [Head and Neck Cancer Australia website](#).
- You will be assessed by the team involved in your care before you go home and follow up arranged with your surgeon and GP.
- Follow-up will also be arranged as needed with a speech pathologist, or any other allied health professionals to 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 to assess your progress.
- Head and neck cancers often require treatment with more than one form of therapy to reduce the risk of cancer recurring. Many patients need radiation therapy, and sometimes the [radiation therapy](#) will be combined with [chemotherapy](#). This will depend on what the pathologist reports after carefully examining the cancer and lymph nodes.
- Your treating doctors will be able to discuss the likelihood of needing further treatment before your surgery but will not be certain until the pathology report is available, which usually takes about two weeks.
- Other referrals will be arranged as needed with other members of your cancer care team, such as a speech pathologist, to assist you with any difficulties.
- Any additional treatments that you may need are planned after discharge. This enables time for you to recover from the initial surgery, to get results of the pathology that examined the tissue removed at surgery, and to make the arrangements for any additional treatment or next steps.
- The course of recovery will depend on the surgery you had, and also on any additional reconstruction or treatment.

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.](#)

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## QUESTIONS TO ASK YOUR DOCTOR:

- What are the benefits of Trans-oral laser surgery?
- Could I have radiation therapy instead of Trans-oral laser surgery?
- What will happen if I don't have the surgery?
- What are the possible side effects? How can they be prevented or managed?
- How long will the procedure take?
- How long will I be in hospital and how long do I need off driving, work and exercise?
- What lifestyle changes (diet, exercise) do you recommend I make?
- What are the chances that the surgery will cure the cancer?
- How much will the operation cost? Will my health insurance cover it?
- What follow-up tests will I need after the operation?
- 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

#### **About Head and Neck Cancer Australia**

Head and Neck Cancer Australia (formerly Beyond Five) is Australia's only charity dedicated to providing information and support to people living with head and neck cancer, caregivers, family and healthcare professionals.

Head and Neck Cancer Australia's mission is to improve the quality of life of everyone affected by head and neck cancer through education and access to support and to raise awareness of head and neck cancer nationally.

Head and Neck Cancer Australia supports people through their cancer journey, from diagnosis to treatment and life after cancer by providing comprehensive, easy to understand and easy to access information. We have the only Directory of Head and Neck Cancer services and support groups available in Australia and New Zealand helping people to find the right services and support when they need it most.

Phone: 1300 424 848

Email: [contact@headandneckcancer.org.au](mailto:contact@headandneckcancer.org.au)

Web: [www.headandneckcancer.org.au](http://www.headandneckcancer.org.au)

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