Robotic-assisted lingual tonsillectomy for sleep apnoea

You have been given this leaflet because you have been referred for a robotic-assisted lingual tonsillectomy for sleep apnoea. This leaflet offers further information and explains the benefits, risks and alternatives to the procedure, as well as what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or nurse caring for you.

What is sleep apnoea?

Snoring is fairly common and occurs during sleep due to the vibration of structures inside the throat. However, snoring can sometimes be a sign of a more serious problem called obstructive sleep apnoea (OSA), which can lead to sleepiness during the day, as well as more serious health problems.

OSA is usually caused by an obstruction of the upper airway (at the back of the roof of the mouth) but there are other causes too. Your doctor will have carried out tests to diagnose the cause of your OSA.

What is a robotic-assisted lingual tonsillectomy?

In addition to the tonsils that are located on the sides of the throat (palatine tonsils), there is also tonsil tissue on the back of the tongue (lingual tonsils). If the lingual tonsils become too enlarged, they can obstruct your breathing and contribute to obstructive sleep apnoea. A lingual tonsillectomy involves the removal of most of the lingual tonsil in order to enlarge the airway behind the tongue.

Robotic-assisted surgery is a technique that uses a robotic console (the DaVinci® system) to help your surgeon during the operation. The surgeon will be in the same room as you, performing the operation by controlling the robot’s arms. It is important to understand that the robot is not performing the surgery. The surgeon still carries out the procedure, but the robotic console allows more controlled and precise movements during the operation.

Why should I have robotic-assisted tonsillectomy?

You have been advised to have this operation to treat your sleep apnoea. When an obstruction in breathing occurs, patients often experience a drop in oxygen levels and wake up very suddenly. This can place stress on the heart, lungs, and metabolic systems. More severe cases of OSA are associated with risks such as developing hypertension, stroke and heart attack. OSA can also lead to sleep disruption, fatigue, memory problems, and decreased quality of life. Although the primary purpose of treating OSA is not to improve snoring, this is often very important to patients and their partners.
What are the risks?

**Anaesthetic:** The procedure is performed under a general anaesthetic, which means you are asleep for the whole operation. You will be able to discuss this with the anaesthetist before your surgery and he/she will identify the best method for your individual case. For more information please see our leaflet, *Having an anaesthetic*. If you do not have a copy, please ask us for one.

**Bleeding:** The risk of bleeding applies to all surgical procedures. Approximately two in 100 patients will experience problematic bleeding during a lingual tonsillectomy. Although bleeding in the throat can be very serious, it is uncommon with this procedure, and usually there is only minor oozing or blood-tinged mucus.

**Infection:** Approximately five in 100 patients will get an infection. To reduce the risk of infection, an oral antiseptic rinse is used prior to the procedure.

**Nerve damage causing tongue numbness or tingling:** Lingual tonsillectomy involves use of a unique type of radiofrequency (heat) energy on the tongue. This can damage the nerve located along the sides of the tongue. To avoid nerve damage, lingual tonsillectomy is performed more thoroughly in the central part of the tongue. If damage does occur it is usually temporary and recovers within a few days/weeks. It is possible, however, that damage may take months to recover or, at worst, be permanent.

**Nerve damage causing tongue weakness or swallowing difficulties:** A second nerve, which is responsible for tongue movement can also be damaged during lingual tonsillectomy. Damage to this nerve can cause patients to have difficulty swallowing. Any damage is usually temporary and recovers within a few days/weeks, but in rare cases can take months to recover or be permanent.

What are the advantages of having the operation robotically?

One major advantage to robotic-assisted surgery is that it is less invasive. Whilst the robot can get into your mouth easily, the surgeon would have to remove more tissue to achieve the same access. Using the robot is therefore likely to result in fewer complications and possibly better speech and swallowing after surgery.

Another advantage is that the robot uses a telescope, which allows a much clearer view of the back of the tongue, larynx and oropharynx than the human eye. The view is also magnified. This enables more precise surgical removal of tissue and a better view of any bleeding vessels.

What are the disadvantages of having the operation robotically?

Your surgery will be slower and you will need to be anaesthetised for a longer amount of time. This is because the robot takes time to set up and is slower than conventional surgery.

Who will carry out the surgery?

Your robotic-assisted lingual tonsillectomy will be carried out by Mr Andrew Lyons, a consultant head and neck surgeon with specialist training in this procedure. Although carrying out this specific procedure using the robot is new to the Trust, the daVinci® system has been used extensively throughout the United States and Europe, and is used at Guy’s and St Thomas’ for many different types of surgery.
**Are there any alternatives?**

There are other medicines and treatments available to treat obstructive sleep apnoea but you would not normally have been referred for surgery unless all of these options had already been explored.

We are currently not able to offer a surgical lingual tonsillectomy carried out without the robot at this Trust.

**How can I prepare for surgery?**

For further information on preparing for your operation, please read the following leaflet:

- **The surgical admission lounge (SAL) at Guy’s Hospital**

If you have not been given a copy of this leaflet, please ask us for one or see our website at [www.guysandstthomas.nhs.uk](http://www.guysandstthomas.nhs.uk) (type SAL in the search box).

You will be asked to fast for a number of hours before your surgery. The instructions you are given will depend on when your surgery is scheduled for. Further information can be found in the *Having an anaesthetic* leaflet, which should have been given to you. If you do not have a copy of this leaflet, please ask one of the nurses caring for you.

**Giving my consent (permission)**

We want to involve you in decisions about your care and treatment. The surgeon caring for you will ask your permission to perform the operation. You will be asked to sign a consent form that says you have agreed to the operation and that you understand the benefits, risks and alternatives. If there is anything that you do not understand or if you need more time to think, please tell the staff caring for you.

Remember, it is your decision. You can change your mind at any time, even if you have signed the consent form. Let staff know immediately if you change your mind. Your wishes will be respected at all times. You should receive the leaflet, *Helping you decide: our consent policy*, which gives you more information. If you do not, please ask a member of staff caring for you for a copy.

**What happens during the operation?**

The procedure will be carried out under general anaesthetic. The surgeon uses the special arms on the robotic console to remove the lingual tonsils. The procedure usually takes around two hours but the anaesthetic and recovery time mean that you will be away from the ward for longer than this.

**What happens after the operation?**

Once the operation is completed you will be moved to the recovery area whilst you wake up from your anaesthetic. The nursing staff will check your observations and monitor your condition during this time. Once you are stable you will be transferred to the ward. You will usually need to stay in hospital for one or two days following this procedure.
Will I feel any pain?
It is essential that you have an adequate level of pain relief after your surgery. If you are experiencing pain, please make sure that you take your prescribed painkillers regularly. These tablets, however, are not compulsory, so you may not need to take them if you are experiencing only a small amount of pain. When you come into the hospital you will be given a leaflet called *Taking painkillers after your surgery*. This explains how to get the most benefit from your painkillers.

If your pain does not settle, you can either be reviewed at your scheduled outpatient appointment, or you can seek further advice and management from your GP.

What do I need to do after I go home?

**Eating and drinking**
After your operation you may have some pain and swelling, which can cause difficulty swallowing. Some patients report difficulty in getting food to go down, whilst others report that liquids seem to go down “the wrong way”, causing them to cough. During your initial recovery, you should take care when eating and drinking. You will usually be able to eat your normal diet but you should avoid very hot foods for three days following the procedure because these can increase swelling.

**Antibiotics**
You may be prescribed antibiotics to take for several days after the procedure. Take the antibiotics as directed. If you develop a rash or diarrhoea, stop the antibiotics and contact your doctor immediately.

**Activity**
Staying active is important to reduce the risk of developing blood clots or a chest infection. However, you should avoid very strenuous activity initially as this may raise the heart rate and blood pressure which can increase swelling or cause bleeding to start.

**Sleeping**
Keeping your head elevated (at about 45 degrees) decreases blood-flow to the surgical area, which can reduce swelling and pain. You should try to sleep with your head elevated for at least three days following your operation.

**What should I do if I have a problem?**
If you experience any of the following, please contact your GP:

- Increasing pain
- Worsening swallowing problems
- Bleeding
- Fever (temperature higher than 37.5°C).

**Will I have a follow-up appointment?**
You will be offered an appointment to see your surgeon for a check up about two weeks after your operation.
Further sources of information

Pharmacy medicines helpline
For information about any medicines that you have been prescribed at Guy's and St Thomas' hospitals, you can speak to the staff caring for you or call our helpline.
\textit{t:} 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)
To make comments or raise concerns about the Trust’s services, please contact PALS. Ask a member of staff to direct you to the PALS office or:
\textit{e:} 020 7188 8801 at St Thomas’ \textit{t:} 020 7188 8803 at Guy’s \textit{e:} pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)
For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas’ Hospital.
\textit{t:} 020 7188 3416

Language support services
If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.
\textit{t:} 020 7188 8815 \textit{fax:} 020 7188 5953

NHS Choices
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.
\textit{w:} www.nhs.uk