

# **RIGID ENDOSCOPY**

This leaflet describes common procedures performed for the assessment of the mouth (oral cavity), throat (pharynx), gullet (oesophagus) and windpipe (trachea). It can also be used to take biopsies of any areas that look suspicious. These examinations can be performed under the same anaesthetic and biopsies can be taken from more than one site.

You may change your mind about the procedure at any time after signing a consent form.

## **WHAT IS RIGID ENDOSCOPY?**

Rigid endoscopy is one of the best methods we have to investigate problems with the mouth (oral cavity), throat (pharynx), windpipe (trachea & bronchi) and gullet (oesophagus). It is used to locate lumps and masses, or polyps and tumours. If a mass is found and a biopsy can be taken, it will be sent to the laboratory for further evaluation.

## **FUNCTION OF THE THROAT WINDPIPE AND GULLET**

The throat consists of the voice box (larynx), throat (pharynx), breathing passages such as the windpipe (trachea) and the gullet (oesophagus). They are used for normal, breathing, swallowing and speech. In addition the voice box also protects the lungs from the passage of food or liquid during swallow. The throat or pharynx is the common site for all these functions.

Occasionally diseases can affect these structures and cause them to have pain, or not work well. So you may have a husky voice, painful and difficult swallow, or difficulty with breathing.

## **TYPES OF ENDOSCOPY**

### **Microlaryngoscopy**

Microlaryngoscopy is the use of a telescope to look at the voice box (larynx) whilst you are under general anaesthetic. A microscope is used to enlarge and magnify the view of the voice box so that any small microscopic lesions can be picked up and biopsied or dealt with. This also allows for the use of laser application to any lumps or swellings.

The surgeon will put a short metal tube (a Laryngoscope) through the mouth towards the voice box. A microscope is then used to look at the voice box to visualise the problem. If needed, surgery on the voice box can be done through the Laryngoscope. Injections, biopsies and laser applications can be undertaken with a high degree of precision.

Microlaryngoscopy can be a short operation that usually takes thirty minutes. Occasionally extended microlaryngeal surgery can be performed for known cancers which can take a longer period of time but your surgeon will advise on this.

### **Oesophagoscopy and Pharyngoscopy**

Pharyngoscopy and oesophagoscopy is the examination of the swallowing part of the throat (pharynx) and gullet (oesophagus). This is performed under a general anaesthetic. It is done to allow visualisation of the gullet to identify causes for a lump in the throat, painful or difficult swallow. The surgeon will pass a long metal tube (oesophagoscope/pharyngoscope) through the mouth into the gullet. This allows the surgeon to look at the inside of gullet and to identify problems that could be affecting this area. Any problem areas can be biopsied. Biopsies are sent to the laboratory for further examination. Oesophagoscopy is usually a short procedure and can take less than thirty minutes. It can be performed with other forms of rigid endoscopy. The more procedures that are undertaken the longer the overall procedure time. Occasionally surgical treatment is performed to the pharynx or oesophagus. This can extend treatment time but your consultant surgeon will be able to advise you on this.

### **Tracheobronchoscopy**

Tracheobronchoscopy is the examination of the windpipe (trachea) and the main tubes that come off the windpipe towards the lungs (bronchi). The surgeon will pass a long metal tube (bronchoscope) through the mouth into the trachea through the voice box (larynx and vocal folds). The bronchoscope will allow for a view of the inside of the windpipe and main breathing tubes to the lungs. Any problem areas that could account for difficulties with breathing, cough or voice disturbance will be identified and small tissue samples from the lining can be sent to the laboratory for examination (a biopsy). During the telescope examination the tube that is normally used to help with breathing for general anaesthetic procedures will be removed but further oxygen for breathing will be passed into the lungs through the telescope that is inserted into the windpipe (ventilating bronchoscope). Occasionally a jetting device is used to force short bursts of air or oxygen into the windpipe through the mouth. Your surgeon or anaesthetist may be able to advise on the type of ventilation that will be performed during this procedure.

### **HOW IS THE OPERATION DONE?**

For all rigid endoscopic surgery you will be asleep under a full general anaesthetic. The nature of breathing will be through a small tube that is passed into the windpipe or by the passage of a jet of air or oxygen through the telescope into the larynx and trachea. You will be lying on your back with your head on a stabilising head ring and there may be a roll placed under the shoulders. The mouth will need to be fully opened and the head will need to be extended on the neck to allow for a straight line view of the area to be evaluated. This usually takes a short time to perform, usually less than thirty minutes.

### **AFTER THE OPERATION**

Your throat is likely to feel sore and you may have some jaw pain or discomfort when you wake up. Pain killers may be given to you after the procedure to help alleviate discomfort. The nurse looking after you will advise you if you are allowed to eat or drink. The throat discomfort usually settles quickly with simple pain killers after a few days.

Sometimes patients feel that their neck is stiff after the operation and you must tell the surgeon prior to any procedure whether you have a history of neck problems.

After microlaryngoscopy your voice may be weak, husky or worse after biopsies have been taken. You will be advised on voice rest for forty-eight hours with a prolonged period of minimal voice use of seven days to allow the lining of the voice box to heal before you start talking normally.

## **HOW LONG IN HOSPITAL?**

You are normally discharged the day of the operation. You should be able to go back to normal activities in a few days.

If a biopsy is taken you will be provided with a follow-up clinic appointment to discuss the results.

After oesophagoscopy you may find that your throat hurts. This is because the metal tube is passed through the throat to examine the gullet. This will also settle quickly in a few days.

You may not be allowed to eat or drink after the oesophagoscopy if a biopsy has been taken and the surgeon will decide whether this is safe for you to do.

## **POSSIBLE COMPLICATIONS**

There are some potential consequences and risks that you need to be aware of prior to giving consent for surgery. The complications are uncommon. Listed below are some of the problems associated with surgery, This is not a comprehensive list of the complications associated with surgery but does cover most problems including rare ones associated with this procedure. If you wish to discuss further specific issues, please do not hesitate to do so with your doctor.

### **Gum/lip trauma**

There is a low risk of bruising or damage to the lips, gums or teeth. This is uncommon.

### **Dental damage**

There is a small risk of damage to the teeth or crowns. These are usually protected with a gum shield but if any teeth are already loose they may be lost during this procedure as the rigid endoscope may put pressure on the teeth.

**Insufficient specimen**

Very rarely, the procedure may fail to get sufficient tissue for a diagnosis.

**Bruising**

Occasionally, there may be some damage to the back of the throat which causes bruising, swelling or pain. This is usually temporary and settles quickly after surgery.

**Perforation**

Very rarely (approximately one in one hundred cases) the soft tissues of the gullet (oesophagus) and throat (pharynx) may be torn with the potential for serious infections into the neck or chest. You will not be allowed to eat or drink if this should develop and may require a period of a stay in the hospital until the area has healed.

**Chest complications**

Rarely, If blood or other debris enters the chest during the procedure there is the potential for a chest infection or breathing difficulties. You may be prescribed antibiotics or chest physiotherapy to help clear the secretions.

**Neck Injury**

The neck may be rarely strained or sprained after the surgery. If you have any spinal or neck problems let the surgeon know so that they can take care of your neck during the surgery.

**Jaw problems**

Rarely, the jaw may feel sore – this is due to the mouth being opened for the duration of the procedure- it usually settles quickly and is rarely a problem.

**Tracheostomy**

Very rarely a tracheostomy may be required during or after the surgery if the airway becomes obstructed or if there is a significant risk of obstruction. This is a life preserving procedure. It involves the insertion of a breathing tube into a cut or incision in the front of the neck to allow a tube to be inserted into the windpipe (trachea) below the Adam's Apple, bypassing the mouth and nose.

**POST OPERATIVE CARE**

You will usually be discharged a day after the surgery or on the same day as surgery depending on the nature of treatment received. You may need a few days off from work to allow your throat or gullet to rest depending on your job.

**IS THERE ANY ALTERNATIVE TREATMENT?**

Oesophagoscopy is the suitable technique used for examining the upper part of the oesophagus and the lower part of the throat (pharynx). However, if you need your

lower oesophagus or stomach looked at then a fibre-optic gastro-oesophagoscope is used. This is an examination performed by a stomach doctor (Gastroenterologist) who will be able to tell you what to expect.