Thyroid surgery is generally a safe procedure. The vast majority of patients undergoing an operation on the thyroid gland have no complications. However, as with any surgical procedure, there are some risks associated with the operation and these should be fully explained to you by your surgical team.

**VOICE CHANGES**
There are three possible reasons for such changes to occur:

**Injury to the recurrent laryngeal nerve(s)**
There are two recurrent laryngeal nerves, one on each side of the neck. They pass behind the thyroid gland and into the larynx (voice box) where they control movements of the vocal cords.
If “bruised”, the nerve does not work properly immediately after surgery but recovers and should return to normal function during the next few days or weeks. Sometimes, however, it can take up to a few months for the voice to return to normal.

Permanent damage to one of these nerves (risk: 1-2 in 100) causes a hoarse, croaky and weak voice. The body usually adapts to the damage and symptoms may get better with time. If voice problems persist for more than three months you will be referred for voice therapy. Sometimes further specialist surgery is required to improve the voice.

Permanent damage to both nerves is very rare indeed but is a serious problem that may have to be treated by putting a permanent tracheostomy (breathing tube) into the windpipe in the neck.

**Injury to superior laryngeal nerve(s)**

These tiny nerves travel close to the blood vessels that feed the thyroid gland and control the tension of the vocal cords. Damage to one of these nerves may result in a change to the pitch of your voice. The risk of this is estimated to be 1 in 20. You might have difficulty in reaching high notes when singing, your voice may tire more easily and you might not be able to shout loudly.

**Non-specific voice changes**

Any operation on the neck can produce some change in the voice even when there is no injury to the nerves controlling movement of the vocal cords. Fortunately this voice change is not normally noticeable and recovers within a few months of the operation. You might find your voice is slightly deeper and you might experience voice fatigue. This is significant mainly for those who use their voice for professional reasons.

Voice changes are more likely to occur in people who have surgery on a very large thyroid gland or have been operated on for thyroid cancer. The risk is also slightly raised in patients who have lymph node surgery for thyroid cancer.
LOW CALCIUM LEVELS
There are four parathyroid glands, two on each side of the neck, each about the size of a grain of rice and tightly attached to the thyroid gland. They are involved in controlling the calcium level in the bloodstream. It is normally possible for the surgeon to identify and save some or all of these glands and so avoid a long-term problem. However, during thyroid surgery the parathyroid glands can be bruised or damaged.

Unfortunately, even when the glands have been saved they may not work properly for a few weeks after the operation. Because of this your calcium levels might drop and you might experience tingling in the fingers and lips (‘pins and needles’).

Some surgeons prescribe a short course of calcium tablets to all patients who have had thyroid surgery. Other surgeons only prescribe calcium to some patients after surgery. Your surgeon will be able to advise you on his/her policy.

There is a 1 in 14 to 1 in 20 (5% - 7%) risk that you might need calcium or vitamin D tablets on a long-term basis.

The risk of low calcium levels post-operatively is higher in patients who need surgery for an over-active thyroid gland and in patients with thyroid cancer who have had lymph node surgery. In these patients, the risk of needing long-term calcium tablets is 1 in 10 to 1 in 20 (5 – 10%).

BLEEDING AFTER THE OPERATION
This is an uncommon complication that can lead to neck discomfort or, in more severe cases, breathing difficulties. Occasionally, patients will need to return to operating theatre and have further surgery to have the neck explored so that the cause of bleeding can be dealt with.
NECK NUMBNESS
Some patients may experience numbness around the thyroid surgery scar after their operation. This usually settles in the fullness of time.

SWALLOWING DIFFICULTIES
Swallowing can be improved after thyroid surgery, especially in patients who have large goitres.

Occasionally, some mild difficulty in swallowing may develop after the operation. This is almost always temporary until the post-operative swelling settles. If you still have difficulty swallowing after some weeks you should discuss this with your surgeon.

SCAR
Sometimes the scar may be red for a few months after the operation before fading to a thin white line. It takes about six months to one year for the scar to reach its final appearance. Some patients may develop a thick exaggerated scar which is unsightly but this is very rare.

WOUND INFECTION
Infection is not common but if it happens it can be treated with antibiotics.

WOUND SWELLING
Some degree of swelling around the wound is normal following any type of surgery including thyroid operations.

Occasionally, there can be a collection of fluid behind the thyroid surgery scar. This fluid is called a seroma and is part of the body's response to surgery. If there is a particularly large seroma it can be simply drained with a needle and syringe in the clinic. This is not always required.
THYROID STORM
This is an extremely rare complication in modern medical practice. Thyroid storm is a medical emergency and requires immediate treatment. It is caused when excessive amounts of thyroid hormones are released during surgery in patients with hyperthyroidism (overactive thyroid gland) who have not had the overactive gland brought under control with tablets.

RISKS OF GENERAL ANAESTHESIA
Modern anaesthesia is very safe and serious problems are uncommon. All anaesthetists in the UK are fully qualified doctors with specialist training.

It is not uncommon after an anaesthetic for some patients to feel sick and for some to vomit. Certain people are more prone to this problem, and your anaesthetist will give you medication that decreases the chance of this happening. Other problems that can occur include sore throat, dizziness, blurred vision, headache, itching, aches, pains and backache. These problems tend to get better within a few hours of waking up.

Less common problems (1 in 1000 patients) include development of a chest infection (particularly in those who already have chest complaints), muscle pains, damage to teeth, lips or tongue, or the worsening of an existing medical condition.

Very uncommon problems (1 in 10,000 patients) include damage to the eyes, a serious drug allergy and nerve damage. The risk of awareness (remaining conscious) whilst under a general anaesthetic is very uncommon (also 1:10,000). When awareness does occur, it is typically for a short period prior to the operation commencing. It is extremely rare to be conscious during the operation.

The risk to you as an individual will depend on whether you have any other illness, personal factors (such as smoking or being overweight) or surgery that is complicated, takes a long time or is done in an emergency.
Please discuss any pre-existing medical conditions with your anaesthetist. In certain situations your anaesthetist may want to see you a few weeks before your admission date to make sure there are no problems that need dealing with before your operation.

For more information about risks associated with your anaesthetic you can either contact your Anaesthetist through your surgical team or visit the Royal College of Anaesthetists website at www.rcoa.ac.uk.

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The British Thyroid Foundation
For support and more information about thyroid disorders please visit: www.btf-thyroid.org

The Butterfly Thyroid Cancer Trust
For further information please visit: www.butterfly.org.uk

Disclaimer

The advice in this leaflet is believed to be true and accurate at the time of going to press.

Ultimately, the responsibility for obtaining informed consent from you for a surgical procedure lies with your surgical team and not with the British Association of Endocrine & Thyroid Surgeons (BAETS).

BAETS cannot accept any legal responsibility for the contents of this leaflet which is produced in good faith.