Ear, Nose and Throat (ENT) Department

Patient Information

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Information

If you need this information in large print, easy read, on audiotape or in another language please call 0800 7838058 or e-mail pals@dchft.nhs.uk

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Total Thyroidectomy

The purpose of this information sheet is to tell you about the thyroid gland and the operation of total thyroidectomy. Your surgeon will explain to you the reason for recommending this operation to you. The most common reasons are: multi-nodular goitre, overactive thyroid (Grave's disease) and thyroid cancer.

The thyroid and parathyroid glands

Your thyroid gland is situated in the front part of your neck. It produces a chemical substance (a hormone) called thyroxine. This hormone circulates around your body in the blood and controls the speed at which your body's chemical processes work.

Very close to the thyroid gland are four very small glands called parathyroid glands. Each gland is not much bigger than a grain of rice. These glands produce a hormone called parathyroid hormone (PTH), which controls the level of calcium in your body. Every effort is made to leave the parathyroid glands in place when the thyroid gland is removed, but their function may be affected by the operation. This may affect your blood calcium levels. There is further information about this later in this leaflet.

What is a total thyroidectomy?

Total thyroidectomy is an operation to remove the thyroid gland. The operation is performed under general anaesthetic, which means you will be asleep throughout.

The surgeon will make an incision across your neck, a fingerbreadth above the top of your breastbone. After removal of your thyroid gland, the surgeon may insert a drainage tube in your neck. This will normally be removed on the first or second day after surgery. The wound is closed with a stitch which runs underneath the skin. This stitch may be dissolvable or will need to be removed after three to five days.

You will need to stay in hospital for two to four days.

For people undergoing thyroid operations for cancer, it may also be necessary to remove some lymph glands from your neck. The absence of these glands does not normally produce any problems.

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Your surgeon will discuss this with you if he/she expects to remove any of your lymph glands. You will be given another information sheet specific to this part of the operation (neck dissection for thyroid cancer).

Will I need replacement thyroxine after the operation?

After removal of your thyroid gland, you will need to take replacement thyroxine for the rest of your life. This is given in tablet form, usually once a day. The level of thyroid hormones in your blood will be measured after about six weeks. We may need to adjust the dose at this stage. Once your blood levels are stable you will continue on the same dose and have your blood levels monitored by your GP once a year. Thyroxine tablets have no side effects when taken at the correct dose.

Are there any possible complications?

All operations carry risks, including:

- post-operative infections (e.g. a wound infection or chest infection)
- bleeding beneath the wound, which occasionally requires further surgery

There are also some other possible complications which are more specific to thyroid surgery:

- **Scar:** most thyroidectomy incisions heal to leave a neat scar, although initially your scar may be thick and red for a few months after the operation before fading to a thin, white line. Some people develop a thick exaggerated scar but this is uncommon.

- **Voice change:** it is impossible to operate on the neck without producing some change in the mechanics of the voice. This change is not usually obvious.

- **Nerve injury:** injury to the laryngeal nerves which control movement of the vocal cords can occur. These pass close to the thyroid gland and are very susceptible to injury during thyroid surgery. Injury to these nerves may be temporary or permanent. Temporary damage is quite common, but is reversible. Permanent damage is rare, but will result in a permanent change in the voice.

  Injury to **one** of the **recurrent laryngeal nerves** causes hoarseness and weakness of the voice. In the case of temporary nerve damage the voice recovers over a few days or weeks (improvement can be expected to take up to three months). The risk of permanent damage to one of the recurrent laryngeal nerves is about 1%. In this case, voice changes may persist. However, improvement can be expected for up to a year with the help of speech therapy. Sometimes surgery to the vocal cords can further improve the quality of the voice.

  If **both** recurrent laryngeal nerves are damaged, both vocal cords will be paralysed. This can result in complete blockage of the airway requiring a tracheostomy. This involves a tube placed through the front of the neck directly into the windpipe to bypass the blockage. If the nerve damage is temporary, the tracheostomy will be temporary. However, if the damage is permanent, the tracheostomy may be permanent.

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The **external laryngeal nerve** may also be injured during surgery. This can result in voice weakness, although the sound of the voice may be unchanged. If this occurs, you may find difficulty reaching the high notes when singing. Your voice may tire more easily and the power of the shout may be reduced. If the nerve damage is temporary, the voice may recover. If the damage is permanent, the changes may persist indefinitely.

You will normally have an appointment in the ear, nose and throat (ENT) clinic before your operation to examine your vocal cords and ensure they are working normally beforehand. This test may be repeated following your surgery.

- **Low blood calcium levels:** as explained above, the parathyroid glands lie very close to the thyroid and produce a hormone which controls the level of calcium in the blood. Your parathyroid glands are at risk of being damaged during thyroid surgery. You may develop a low blood calcium level if all your parathyroid glands stop working. For this reason your calcium levels will be monitored with daily blood tests after the operation. If your calcium levels drop, you will need to take calcium and/or vitamin D tablets. The risk of you needing long-term medication because of a low calcium level is about 1 in 20.

- **Swallowing difficulty:** for people undergoing surgery for thyroid enlargement (goitre), swallowing may be improved after surgery. However, after any thyroid surgery some mild difficulty in swallowing may develop and be persistent.

Consent

We must by law obtain your written consent to this procedure beforehand. Staff will explain all the risks, benefits and alternatives before asking you to sign a consent form.
If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff.

Further information

British Thyroid Foundation: www.btf-thyroid.org

Macmillan: www.macmillan.org.uk

British Association of Endocrine and Thyroid Surgeons (2003) *BAETS and BTA Guidelines*, [online] Available at: http://www.baets.org.uk/guidelines/ [Accessed 17 April 2014].

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Contact details

ENT Secretaries (Dorchester)

Mr Ford	01305 255138
Mr Lale	01305 255510
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Yeovil

To contact the ENT secretaries at Yeovil District Hospital please telephone 01935 384210.

Acknowledgement

The content of this information leaflet was written by the Network Endocrine Multidisciplinary Team at Poole General Hospital (May 2014) but has been adapted for use at Dorset County Hospital NHS Foundation Trust.

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