Vascular disease is as common as both cancer and heart disease and accounts for 40% of deaths in the UK, many of which are preventable.

Saving Lives and Limbs

The Vascular Research Charity

SAVING LIVES AND LIMBS

ENDOSCOPIC THORACIC SYMPATHECTOMY

ETS for facial flushing/blushing

Most people blush on occasions, particularly when they feel embarrassed or stressed. Blushing is caused by blood vessels in the skin opening to allow more blood to flow through, which makes the skin red. The muscles in your blood vessels are controlled by the sympathetic nervous system.

A few people find that they blush so much that it becomes a major problem in their social and work lives.

ETS will help reduce facial blushing as the sympathetic nerves control the supply of extra blood to the skin.

Using ETS to treat facial flushing is not as well established as its use in the treatment of excessive sweating but it is effective.

It works best for sudden surges of blushing. It is not useful for people with a reddish complexion. It is important to make sure that there is not an underlying skin condition causing the problem such as the skin condition rosacea, or that the blushing is not occurring as part of the menopause.

The potential drawbacks are the same as those of ETS for excessive sweating but in addition it is conceivable that if the procedure works for one side and not the other, you could end up with half your face blushing.

Summary

It is only sensible to consider ETS if you have a major problem with sweating or flushing that is badly affecting your quality of life and if you have tried other methods of treatment and these have not worked.

The operation is usually very successful and most people are delighted. However, some degree of compensatory sweating is usual and occasionally this is a big problem.

There is inevitably some risk involved in the surgery and although the chances of a serious problem are very small, you may be the one who develops it.

You should consider your options carefully and discuss the operation with someone who performs it regularly.

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**Endoscopic thoracic sympathectomy**

Endoscopic thoracic sympathectomy is used mainly as a treatment for excessive sweating (hyperhidrosis) but can also be used to help treat extreme facial flushing.

**Excessive sweating**

Sweating helps us to keep our body cool and it also helps to keep our skin moist. Sweat is produced by thousands of little glands in the skin and are controlled by our sympathetic nervous system.

Many people suffer occasionally from excessive sweating, particularly when anxious or under stress and this can be managed with simple measures such as strong antiperspirants.

However, in some people (about 1% of the population), this nervous system is overactive and causes sweating to occur in specific places in the body, often at inappropriate times.

Excessive sweating can affect the hands, armpits and feet and can be a serious problem causing social embarrassment and difficulty with practical tasks such as holding a pen.

Before considering surgical treatment it is sensible to have tried simple measures and to be clear that there is a major problem that is persisting despite them.

**What is an endoscopic thoracic sympathectomy? (ETS)**

An ETS involves cutting the sympathetic nerves which switches off the sweating. The sympathetic nerves that control the sweat glands of the hand and armpits runs inside the rib cage near the top of the chest.

**The operation**

A small incision is made beneath the armpit. The lung, on the side being operated on, is allowed to collapse a little to help make room for the operation. Your other lung remains intact and is capable of doing all the work.

A camera on a thin telescope is put into the chest, and the nerves which are to be divided are found. One other small hole may be made to put in the instruments that divide the nerves although this can also be done using the same hole as for the camera. After the nerves have been cut, the lung is re-expanded and the instruments removed.

Sometimes a small drain (plastic tube) is left in the chest for a few hours to make sure all the air is removed from the chest cavity. Your surgeon will discuss with you if it is advisable to do both sides at once.

The operation may be done as a day surgery or with an overnight stay if you need surgery on both sides.

**How successful is it?**

ETS is very effective at stopping sweating of the hands in over 95% of cases; it is slightly less effective at stopping sweating in the armpits (about 85%). Over time sweating will recur in a few people. In a study following patients over a 15 year period, 93% reported complete cure of sweating.

**What are the disadvantages?**

ETS is usually very successful operation; however, it will usually result in increased sweating somewhere else. This is called compensatory hyperhidrosis (it usually occurs on the chest or back) in almost everyone who has had ETS although it is much less of a problem than the original sweating in the hands or armpits.

To some extent the operation can be thought of as a method of moving the sweating from the hands to somewhere else rather than stopping it altogether. About 1% of people will have severe compensatory sweating which can be a major problem. It is not possible to predict who will get this and it is important to realise that the operation is designed to be irreversible.

**What are the risks?**

ETS is a safe operation and usually no problems are encountered. As with any operation, problems can occur and there is a small risk of injury inside the chest. If there is air coming out of the lung or bleeding it may be necessary to insert a drainage tube into the chest for a day or two. About 1% of ETS may result in a droopy eyelid (called Horner’s syndrome) which will usually recover over time, but not in all cases.

**What are the alternative treatments?**

- **Antiperspirants:** They normally have to be applied liberally and regularly.
- **Botox injections:** Botox blocks the nerve signals to the sweat glands, stopping the sympathetic nerves from working. The effect is temporary and usually lasts about six months, but it is a good way of controlling underarm sweating. Many people do not continue with this treatment for hand sweating as it requires a large number of injections into the palms and fingers which are unpleasant and can occasionally cause areas of (temporary) numbness and weakness. It is not often carried out on the NHS.
- **Iontophoresis:** This involves using a machine which passes electric currents across the skin. Its exact method of action is not fully understood but some people find it very helpful. The machines can be purchased for use at home.

**Which treatment is right for me?**

Before you decide to have ETS you should try simple measures such as antiperspirants or considered iontophoresis?

If the simple measures have failed and it is seriously affecting your life you should consider:
- **Botox:** if only your armpits are affected
- **ETS:** if your hands are affected