

HYPERHIDROSIS (SWEATING)

Information Booklet



Introduction

Hyperhidrosis is a condition where “an individual experiences excessive sweating beyond the amount needed for the body to maintain a constant internal temperature of 37°C.” However, “excessive” perspiration may mean different things to different people.

The reality is, everybody sweats. In fact, we would be in trouble if we didn't. Furthermore, some people sweat larger amounts and more easily than others. However, sweating only really becomes an issue when it occurs in social situations or in parts of the body where it adversely affects the quality of life of the person with that sweating. Hyperhidrosis can have a severe psychological impact and can have debilitating effects on self-esteem and personal and professional relationships. At extremes, it can result in skin damage and infections.

In the past, the management options for hyperhidrosis have been limited and invasive. Treatment has improved in recent years and various new therapies have become available. However, each treatment has advantages and disadvantages and choosing the correct one for each individual sufferer is vital. Due to our unique position we are able to offer **all** available proven therapies and are therefore not biased to towards any particular one. This ensures that our patients receive an individually tailored treatment regime.



What are the signs and symptoms of hyperhidrosis?

Hyperhidrosis can present at any age, but is most common in young adults. Sufferers may complain of different problems depending on the site of sweating.

Individuals with under arm hyperhidrosis may need to change clothes regularly to avoid obvious staining. Those with sweating of the palms may avoid shaking hands and experience blotting of ink when handling printed documents. Facial sweating/flushing may be an embarrassment in social situations.

Due to the continual wetness some people may experience a softening and whitening of the skin; allowing it to become easily infected and painful. Bacterial or fungal overgrowth can occur.

Primary vs Secondary Hyperhidrosis

There is no obvious cause for excessive sweating in the vast majority of people. This is called **primary hyperhidrosis**. Rarely, the sweating occurs as a result of another medical condition. In this case it is called **secondary hyperhidrosis**. In secondary hyperhidrosis the sweating may be focal or generalised but is more likely to be generalised.

Focal vs Generalised Hyperhidrosis

Hyperhidrosis can occur in two forms: **Focal hyperhidrosis** is excessive sweating localised to particular areas of the body i.e. Palms of hands, soles of feet, under-arms (Axilla or Axillae) and face. Conversely, **generalised hyperhidrosis** is sweating simultaneously over most areas of the body. This form of the condition is more likely to be related to other medical conditions.

What causes hyperhidrosis?

The exact cause of hyperhidrosis is not known. In focal hyperhidrosis individuals already have a high production of sweat, and it has been found that an abnormal function of the central sympathetic nervous system also contributes. The sympathetic nervous system is the portion of the nervous system that controls the body's energy and resources during stress or arousal stimuli. Therefore, when a person with focal hyperhidrosis experiences such stimuli (e.g. excitement or fear) their sweat glands produce even more perspiration. However, sweating can also occur when the sufferer is relaxed and unstressed.

Treatment options for hyperhidrosis

The last decade has seen an increased understanding of the condition of hyperhidrosis and the introduction of a number of new therapies. Unfortunately, there is still no perfect single treatment for all people suffering all varieties of the condition. It is vital to understand the range of treatments available and the advantages and disadvantages of each. A description of the most common approaches is given below but your individual case will be discussed in greater depth when you attend an appointment at the VASC clinic.

Avoidance measures

Avoiding situations that are known to bring on sweating is advised but, of course, can be difficult in the course of living a normal life. Avoiding nylon and certain other materials helps. Special garments are also available which reduce the visibility of sweat. Regular washing/ changes of clothes is a simple but often necessary activity. Careful choice of colours of clothes is advisable.

Antiperspirants

The active ingredients of almost all antiperspirants are aluminium salts, which help reduce sweating by temporarily plugging pores and constricting the pores by astringency. The most commonly used aluminium salt is aluminium chlorohydrate. Products containing 10% to 30% aluminium are the first line of treatment for underarm sweating. Antiperspirants can cause skin irritation, and large doses of aluminium chloride can damage clothing. If skin irritation is a problem, a doctor may temporarily prescribe a steroid-based cream. There is no good evidence that antiperspirants increase the risk of breast cancer.

Deodorants

Deodorants contain antibacterial ingredients that help reduce the numbers of odour-causing bacteria, and may also contain perfumes that mask the smell. Deodorants do not prevent sweating, but are helpful in reducing body odour.

Medication

Anticholinergics drugs, such as glycopyrrolate (Robinul, Robinul-Forte), help to prevent the stimulation of sweat glands. Although effective for some patients, these drugs often have side effects including dry mouth, dizziness, and problems with urination.

Surgical excision of axillary skin

Local excision of sweat glands is an effective and long lasting method of reducing sweating that is localised to the arm pits. It has both advantages and disadvantages.

Advantages:

- Effective reduction in sweating
- Long lasting or permanent
- Single treatment
- Cheaper than Botox in the long term

Disadvantages:

- Surgical procedure requiring an anaesthetic
- Occasional wound problems
- Only applicable to the under arm area

The "Skoog procedure" is a surgical procedure involving removal of some of the skin containing sweat glands as well as removing just the sweat glands themselves from a wider area. Excision of an ellipse of skin is performed in the arm pit, about 2cm wide by 5cms long.

The remaining skin is retracted to expose the glands on the underside of the skin. The glands are surgically removed using fine scissors under magnification and the wound is closed. Local wound complications such as haematoma, skin necrosis, infection and keloid scarring are rare but potentially serious.

Failure to reduce sweating, significant return of sweating after 6-9 months and compensatory sweating are rare. All these risks will be discussed with you before your procedure.

Botox

Botulinum toxin type A (Botox) is extremely effective in the treatment of underarm sweating. Small doses of purified botulinum toxin injected into the underarm temporarily block the nerves that stimulate sweating. Side effects are very rare but transient injections site pain is expected. Botox can be used for sweating of the palms and feet but can cause mild, but temporary weakness. Some people may find the discomfort unacceptable. However, there are techniques to block the pain to make Botox an option for palma sweating. The main disadvantages of Botox are the cost and the lack of long term action. The effect of a single injection lasts an average of 8-10 months.



Advantages:

- Very effective reduction in sweating particularly in armpits
- Quick procedure
- No anaesthesia required
- Very few side effects

Disadvantages:

- Limited time of action - less than 9 months
- Some discomfort at time of injection
- Expense
- Only really useful for under arm and palm sweating

Iontophoresis

Iontophoresis has been shown to work well in some people with sweaty palms and feet. It is useful option for patients who have tried antiperspirants but don't want invasive treatment. It may also be used for axillary hyperhidrosis in some cases but requires special pads which are placed in the arm pits. New pads are now available to treat facial, scalp and generalised areas.

Iontophoresis uses water or dilute medications to conduct a mild electrical current through the skin's surface. It's not entirely understood how or why iontophoresis works, but it's believed that the electric current and mineral particles in the water work together to microscopically thicken the outer layer of the skin, which blocks the flow of sweat to the skin's surface.

During iontophoresis, patients sit with hands or feet immersed in shallow trays filled with water while the device sends a mild electrical current through the water. The process is repeated every other day for five to ten days or until sweating is reduced to a comfortable level. Once the desired dryness has been achieved, patients are switched to a maintenance schedule, ranging from once per week to once every four weeks, depending on the individual. Iontophoresis machines can easily be used at home and can be bought or rented from VASC.



Advantages:

- Non invasive
- Minimal discomfort
- Can be used long term and at home
- Equipment is relatively cheap

Disadvantages:

- Does not work in all patients
- Requires time investment initially and ongoing
- Can cause skin irritation
- Most useful for feet and hands

Endoscopic Thoracic Sympathectomy (ETS)

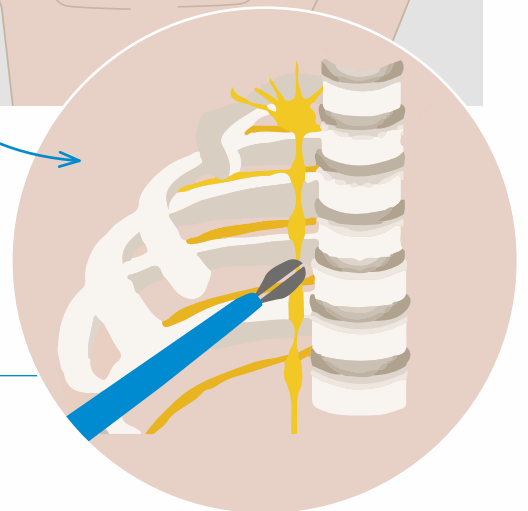
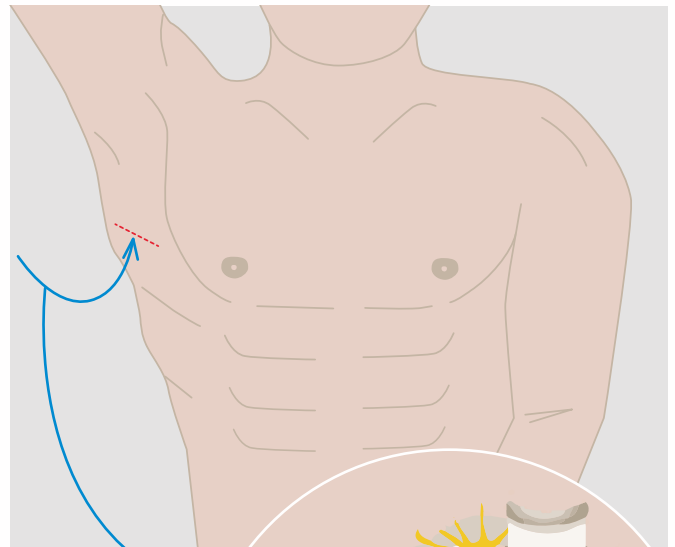
Thoracic sympathectomy is an extremely effective, long lasting, treatment for focal, primary sweating of the palms. When used in carefully selected patients. The procedure involves cutting a nerve in the back of the chest cavity which stops the signal that tells the hands to sweat excessively. The procedure is a telescopic (key-hole) surgical procedure done under a general anaesthetic. An overnight stay is required and some tenderness of the ribs is to be expected for several days after the procedure. The procedure is very safe but there are potentially serious complications that can occur.

Advantages:

- Most effective way of reducing axillary sweating
- Long lasting or permanent
- Single treatment
- Cheaper than Botox in the long term

Disadvantages:

- Surgical procedure requiring an anaesthetic
- Rare but potentially serious complications
- Only reliable for palms
- Compensatory sweating (see below)



In particular, compensatory sweating (increased sweating in other parts of the body) is not uncommon following ETS and should be discussed in depth before undergoing the procedure. It is difficult to predict and can be extremely debilitating if it occurs.