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# Hyperhidrosis (Excessive sweating)

Hyperhidrosis means that you sweat much more than normal. Excessive sweating occurs even when you are not hot, anxious, or exercising. Some people with hyperhidrosis may suffer from night sweats.

Hyperhidrosis (excessive sweating) can be really distressing. Some people with hyperhidrosis avoid daily activities and social contact with others because of embarrassment about the problem, as this can lead to wet clothes or body odour. However, the condition is usually treatable so it's always worth discussing the problem with your doctor. See the separate leaflet called Sweaty Feet.

### Why do I sweat excessively?

Hyperhidrosis means excessive sweating and can have many causes. Excessive sweating in the armpits, hands, feet and creases may be treatable. Other causes include spinal disease, anxiety, heart problems and some cancers. It is worth discussing concerns with your doctor.

### Hyperhidrosis symptoms

As well as the main symptom of sweating, the patient may have psychological symptoms such as anxiety and may have stopped doing some of their usual activities. The healthcare professional seeing you will likely also ask about triggers for sweating, whether you sweat at night (which can indicate more serious diagnosis), any other symptoms such as fever or weight loss, and if there is any family history of excessive sweating.

## What causes excessive sweating?

### Primary (idiopathic) focal hyperhidrosis

This type of hyperhidrosis tends to affect both sides of your body - that is, the palms of both hands, soles of both feet or both armpits. On the rest of the body, you sweat normally.

The exact cause is not known, although it is thought that the autonomic nervous system may be overactive, and it is not associated with any other conditions. (The word idiopathic means of unknown cause.) It just seems that the sweat glands in these areas are more active or more sensitive than normal. In some people, it may run in the family so there may be some genetic factor involved in causing it. It usually first develops under the age of 25 years, but it can develop at any age. Men and women are equally affected. It is common and affects about 3 in 100 people.

The severity can vary from time to time. It may come and go and can be made worse by triggers such as anxiety, emotion, spicy foods or heat. Excessive sweating on the forehead, face, scalp and neck soon after eating is called gustatory sweating.

Anxiety about the sweating itself may make it worse. Excessive sweating tends to be a long-term condition but symptoms sometimes improve over time.

If you have the typical symptoms of primary focal hyperhidrosis, you usually do not need any tests. Your doctor may suggest one or more treatments (see below) if normal antiperspirants do not work well.

#### Secondary focal hyperhidrosis

This is less common, accounting for only around 7% of total cases of hyperhidrosis. It means that the excessive sweating occurs in one particular part of the body because of a known or likely cause. For example, a spinal disease or injury may cause sweating in one leg. Your doctor may suggest some tests to look for an underlying cause of secondary hyperhidrosis.

### Generalised hyperhidrosis

This means that you sweat more than normal all over your body. This is less common than primary focal hyperhidrosis. However, it is usually caused by an underlying medical condition. A whole range of conditions can cause a generalised increased sweating. For example:

- Anxiety disorders.
- Various heart problems.
- Damage to nerves in the spinal cord.
- Side-effects to certain medicines.

- Various hormone problems (including an overactive thyroid gland).
- Infections.
- Certain cancers.

If you have generalised hyperhidrosis your doctor is likely to examine you and do some tests to find out the cause. The treatment depends on the cause.

## How to stop excessive sweating

There is usually no single cure for excessive sweating but there is still a lot you can do. The following may be all that you need if the excessive sweating is mild. They may also help in addition to other treatments in more severe cases.

- If you find that soaps irritate the affected skin, use a bland soap substitute such as a moisturiser (emollient) ointment or cream.
- If possible, avoid triggers which can make things worse such as heat or spicy food.
- If you have armpit sweating:
  - Try using normal antiperspirants regularly. (Note: there is a
    difference between antiperspirants and deodorants.
    Antiperspirants reduce the release of sweat; deodorants mask
    any unpleasant smells.)
  - Avoid clothes that more easily show up sweat marks. As a rule, white and black coloured clothes are less noticeable when wet than other colours.
  - Wear loose clothing under the armpits. Avoid clothes made with man-made fibres such as Lycra® and nylon.
  - Consider using dress shields (also known as armpit or sweat shields) to absorb excess sweat and protect delicate or expensive clothing. These can be obtained online.

- If you have excessive feet sweating, it can help to:
  - Change your socks at least twice a day.
  - Use an absorbent foot powder twice daily.
  - Wear a different pair of shoes on alternate days. This allows them to dry fully.
  - Avoid sport shoes or boots. These are often less breathable than normal shoes are, so are more likely to keep the sweat in.

#### Aluminium chloride - a strong antiperspirant

If normal antiperspirants do not work, it is worth trying stronger antiperspirants that contain aluminium chloride. This is a strong antiperspirant. It tends to work best in the armpits. However, it may also work for sweating of the palms and soles.

Aluminium chloride antiperspirants often cause skin irritation or inflammation. If this occurs, it is often still worth persevering if the irritation is tolerable, as the benefit may outweigh the irritation. To reduce the effects of any skin irritation or inflammation that may occur:

- Use the antiperspirant less often.
- Apply a moisturiser (emollient) every day after applying the aluminium chloride; and/or
- Apply a short course of a mild steroid cream such as hydrocortisone
   1% to the affected area twice daily for a maximum of 14 days. (Steroid creams reduce inflammation.)

## How to treat excessive sweating

If lifestyle advice and antiperspirant treatments do not work, your doctor may suggest that they refer you to see a skin specialist (dermatologist) to discuss other treatment options. The specialist may suggest one of the following hyperhidrosis treatments.

#### Iontophoresis

This is a treatment that uses electrical stimulation to treat hyperhidrosis. It is used mainly to treat sweating of the palms and/or soles. It can also be used to treat armpit sweating. It works well in most cases. Treatment involves putting the affected areas (usually hands or feet) into a small container filled with water. A small electrical current is then passed through the water, from a special machine. It is not dangerous but may cause some discomfort or a pins and needles feeling. The exact way this helps to treat sweating is not known. It may help to block the sweat glands in some way.

You will usually need 3-4 treatment sessions per week. Each treatment session lasts 20-40 minutes. Most people see an improvement after 6-10 sessions. A maintenance treatment is then usually required once every 1-4 weeks to keep symptoms away. If the treatment does not work with tap water, a medicine called glycopyrronium bromide is sometimes added to the water.

lontophoresis does not work in every case. Also, some people develop sideeffects from the treatment, such as a dry or sore mouth and throat, and dizziness, for up to 24 hours after each treatment episode.

You should not have iontophoresis if you are pregnant, or have a metal implant, such as a pin to fix a bone break (fracture), or if you have a pacemaker.

### **Botulinum toxin injections**

Botulinum toxin injections are an option that usually works well for armpit sweating. Treatment consists of many small injections just under the skin in the affected areas. The botulinum toxin stops the nerves in the skin that control the sweat glands from working. Botulinum toxin is not licensed to treat sweating of the palms and face. This is because there is a risk that the injections may stop some of the nearby small muscles of the hands or face from working.

The downside of botulinum toxin is that the effect usually wears off after 4-12 months. Therefore, to keep working, the treatment needs repeating when the effect wears off.

#### Medication

Drugs from the antimuscarinic class, such as oxybutynin and glycopyrronium bromide work on the receptors near sweat glands and can reduce sweat secretion; however this is an off-licence use of these drugs. Side-effects can limit their use - these include dry mouth, blurred vision, constipation and an inability to pass urine (urinary retention).

# Hyperhidrosis surgery

An operation is an option for people who have not been helped much by other treatments, or if other treatments cause unacceptable side-effects or problems.

#### For armpit sweating

One option is to remove the sweat glands in the armpit. There are various techniques. One technique is to remove the sweat glands from the underside of the skin through a small hole cut in the skin (called suction curettage).

A recent innovation has been to use a laser to destroy the sweat glands in the armpit - laser sweat ablation (LSA). This may result in less scarring than other surgical techniques.

#### For palm sweating

One option is to have an operation to cut some of the nerves that run down the side of the spinal cord - this is called endoscopic thoracic sympathectomy (ETS). These nerves control the sweat glands in the hands. The operation is called endoscopic thoracoscopic sympathectomy. It is done by keyhole surgery, using a special telescope to locate the nerve, and then to cut the nerve. Most people are pleased with the result of the operation. However, a complication that may occur following this operation is a compensatory increase in sweating in other parts of the body (such as in the chest or groin).

Surgery is not usually done for sweating of the soles. Although cutting the nerves next to the spinal cord in the lower back region may cure the problem of sweating, there is a high risk of this also affecting sexual function.

### Is excessive sweating dangerous?

Although not a medically serious condition, excessive sweating can be very embarrassing. For example:

- If you have bad palm sweating you tend to have a cold, sweaty handshake and sweat may drip from your hands on to work documents, computer keyboards, etc.
- If you have bad armpit sweating, you may become embarrassed by the frequent wet patch that develops on clothes under your arms.
- You may need to change clothes during the day.
- You may avoid social contact or avoid doing sports because of embarrassment about the condition.

Other complications are uncommon. In some cases, the affected skin can become sore, irritated and prone to infection. There is a risk of developing dermatitis on the affected skin.

### **Further reading**

- Endoscopic thoracic sympathectomy for primary hyperhidrosis of the upper limb; NICE Interventional Procedure Guidance, May 2014
- Ibrahim O, Kakar R, Bolotin D, et al; The comparative effectiveness of suction-curettage and onabotulinumtoxin-A injections for the treatment of primary focal axillary hyperhidrosis: a randomized control trial. J Am Acad Dermatol. 2013 Jul;69(1):88-95. doi: 10.1016/j.jaad.2013.02.013. Epub 2013 Apr 13.
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- Hyperhidrosis; NICE CKS, May 2018 (UK access only)

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