Outstanding Care,
Compassionate People,
Healthier Communities

NHS
Sherwood Forest Hospitals
NHS Foundation Trust

INFORMATION FOR PATIENTS

Hyperhidrosis and intradermal Botulinum toxin type A

This leaflet has been written to help you understand more about hyperhidrosis and Botulinum toxin type A injection for excessive sweating of the armpit area.

What is hyperhidrosis?
Hyperhidrosis means excessive sweating. Sweating is one of the most important ways in which the body loses heat, however, people with hyperhidrosis produce sweat in amounts far greater than needed to control temperature.

There are two main types:

1. **Focal hyperhidrosis** is the more common type involving excessive sweating on the feet, hands and, in about 30-40% of cases, the armpits. The face may also be affected, but less often. Even less common is gustatory hyperhidrosis, when sweating on the face is triggered by hot or spicy food. Botulinum toxin type A is indicated for the treatment of focal hyperhidrosis affecting the armpits (axillary hyperhidrosis) when other treatments have not worked.

2. **Generalised hyperhidrosis** affects the whole body. It is much less common and is usually caused by another illness such as an infection, diabetes or when the thyroid gland is overactive.

The excessive sweating usually stops when the illness is treated.

How common is hyperhidrosis?
It has been estimated that up to 1% of the population has some form of hyperhidrosis. It usually starts during the teens and twenties.

What are the causes of hyperhidrosis?
It is not known why some people are affected and others are not. About 1/3 to 1/2 of people with hyperhidrosis have a relative with a similar problem, suggesting that there may be a genetic cause.

Hyperhidrosis is caused by over activity of one type of sweat gland, the eccrine gland. These glands are found virtually all over the body surface but they are concentrated on the palms of the hands, the soles of the feet and in the armpits.

Many things can trigger normal sweating and this is true for hyperhidrosis – it is just the amount of sweating that varies. Examples of triggers include:

- Exercise.
- Heat or cold.
- Alcohol, coffee or tea, smoking, hot or spicy foods.
- Stress, anxiety or strong emotions.
- Certain times of the day.

People with hyperhidrosis can produce a large volume of sweat. This means that the hands, feet, chest or armpits (depending on which part of the body is affected) may be constantly damp. This may make normal everyday activities more difficult to carry out and it can cause embarrassment at work or socially. However, it is not true that hyperhidrosis causes body odour; the smell that some people think is due to sweating is in fact caused by bacteria if sweat remains there for a long time.

What can I do about hyperhidrosis?
Simple self-help measures you can take include:

- Choose clothing that will keep you cool. Natural fibres are cool but they absorb sweat and can remain damp; some synthetic fibres are warm but they draw sweat away from the body and feel dry.
- Consider having a change of clothing available during the day.
- Keep your work environment cool and well aired.
- Avoid the food and drinks that trigger sweating. These will be different for everyone but you will probably know what causes problems for you.
- Reduce stress, tension and anxiety. These are common problems for everyone, though people with hyperhidrosis have extra difficulties of coping with sweating. Think about how you can reduce stress during the day, plan the day, plan your activities carefully and make time to relax.
- Pay attention to your personal hygiene. Odour can be reduced by taking frequent showers, although this will not be convenient for people who constantly sweat it is an effective and simple measure to take.

What treatments are there for hyperhidrosis?
There are several other treatments for hyperhidrosis, some of which you may have tried already:

- **Aluminium chloride** is the active ingredient of some roll-on or aerosol antiperspirants. It is used in stronger solutions to treat hyperhidrosis; it works quite well on sweating in the armpits and is easy to use. Its effects last for only 48 hours but it is usually applied daily. You may continue to use this treatment while you are being treated with Botulinum toxin type A (but not in the week before, as this can affect the pre-treatment tests, and in the first days after the injections in case your skin is tender, as aluminium chloride may cause irritation).
- **Iontophoresis** is the passage of a weak electric current through a water bath (it may also be called an electrogalvanic bath). The area affected by sweating is immersed in the water and electrically charged particles (ions) block the activity of sweat glands. The effects last for three to four days but the effects last longer with repeated treatment.
- **Antimuscarinic drugs** reduce the activity of the nerves supplying the sweat glands. These drugs affect the body's entire nervous system and side effects such as dry mouth, drowsiness and constipation can be troublesome.

- **Beta-blocker drugs** also act on the nervous system but their side effects are usually less troublesome. They may help if sweating is made worse by stress and feelings of anxiety. People with certain medical conditions cannot take them.
- **Anxiolytics (tranquillisers)** may help if anxiety is found to be a problem but side effects are common and long-term use is not usually recommended.
- **Relaxation, psychotherapy and acupuncture** are other ways that some people find helpful. Discuss these treatments with your doctor before trying them.
- **Surgery** can provide a permanent solution but the side effects can be serious and the result may be only partly effective. As with any form of surgery there is also a small risk from general anaesthesia. Surgery is usually considered when other methods of treatment have not worked. There are several types:
    - Sympathectomy means blocking or cutting the nerve supply to the sweat glands. Blocking the nerve supply lasts one to two years and should always be tried first; cutting the nerve supply is permanent. With both methods, compensatory sweating may develop in other parts of the body.
    - Curettage means removing the sweat gland; possible problems include incomplete removal (so sweating still occurs) and poor healing.
    - Excision means cutting away the skin. This can cause large scars and there is risk that the wounds will not heal well.

What is Botulinum toxin type A and how does it work?

It is a treatment given by injection into the skin. It is indicated for the treatment of axillary hyperhidrosis and it has also been used for many years to treat muscle spasm affecting the eyes, face and neck. It is also used to relieve muscle spasm in children with cerebral palsy.

Botulinum toxin type A is a very pure preparation of a protein obtained from the bacterium Clostridium botulinum, grown under modern methods of cultivation. When small doses are injected into the skin, it blocks the actions of the nerves that supply the eccrine glands; this prevents the glands from producing sweat.

Even though the nerve endings are blocked, over about six to12 weeks new nerve endings grow to replace them. This means that the effects of treatment last for several months but eventually will wear off.

What happens during a course of treatment with Botulinum toxin type A?

The amount of sweat you produce in a five minute period is measured, using filter paper and weigh scales. To qualify for NHS treatment, you need to produce 0.1g of sweat in that five minute period.

Using a very fine needle, your doctor/nurse will inject a small amount (0.1-0.2ml) of solution of Botulinum toxin type A into 15-20 places about 1cm apart and spread evenly in each armpit.

Sometimes a dye is used to show up the areas where sweating is greatest and where the injections should be placed. A course of treatment takes about 60 minutes in total.

Does it hurt?
The needles used are very fine, so most people experience only mild discomfort. It is uncommon for pain relief to be required.

How quickly does it work and how long will the effects last?
You should notice some change for the better within a week of your treatment.

Different people have different responses to treatment. In a clinical trial, sweat production was reduced by 83% within one week of treatment. Furthermore, sweating was reduced by at least half in 95% of patients.

Your next treatment can be given when the effects of the first course wear off. Your doctor/nurse will advise you about when to return for further treatment, usually no earlier than six months.

What happens if I decide to stop treatment?
The effects of Botulinum toxin type A wear off over a period of several months. If you decide not to have any further treatment there will be no lasting change in the areas treated. Sweating will gradually return to the level it was before you started treatment.

Are there any side effects?
Every treatment has side effects in at least some patients. In clinical trials of the treatment of axillary hyperhidrosis with Botulinum toxin type A, 11% of patients reported a side effect.

About 4.5% of patients experienced an increase in sweating in another part of the body (known as compensatory sweating).

Since the injection is made only into the skin, the effects of Botulinum toxin type A should be limited to the nerves supplying the sweat glands. Occasionally, a very small amount of Botulinum toxin type A may spread out from the injection site and affect a nearby nerve that supplies a muscle, for example chest and abdominal muscles.

In clinical trials, about 0.7% of patients experienced mild weakness of the arms; this did not last and got better without any treatment.

Because Botulinum toxin type A is a protein, there is a small chance that 'flu-like' symptoms (tiredness, mild fever, muscle aches) may occur; these will disappear within a few days. You may also feel discomfort at the injection sites.

If any of these effects become troublesome or you notice other effects which you think may be caused by your treatment, consult your doctor/nurse for supportive care. The side effects of Botulinum toxin type A will subside over time but their longevity is very individualised.

Is there any reason why I should not have Botulinum toxin type A?
You should not have Botulinum toxin type A if you have certain conditions and there are circumstances when you need to take special care. You tell your doctor if you:

- Think you may be allergic to Botulinum toxin type A or anything in the preparation.

- Are pregnant, thinking about becoming pregnant or breast feeding.
- Suffer from any muscle problems.
- Are using any antibiotics or drugs to relax muscles.
- Have had any problems with Botulinum toxin type A treatment in the past.
- Are taking any medicines, including any that have not been prescribed by your doctor.
- Have had some types of surgery to your armpits.

Should I do anything special while I'm being treated with Botulinum toxin type A?

- You must avoid becoming pregnant, so make sure that you use effective contraception.
- You must not breast feed during treatment.
- Check with your doctor or pharmacist if you need to.
- Take any medicines and tell them you are being treated with Botulinum toxin type A.
- If you find that your arms are affected, for instance if they feel weak, this may impair your ability to drive or use machinery so avoid doing so until you feel better.

Contact details

Ann Launders-Wheatley on telephone **01623 672310**. The Dermatology department is open Monday to Friday, between 9am and 5pm. Please note we are closed weekends and bank holidays. During these times we would advise you to contact your own doctor (GP).

Further sources of information

NHS Choices: www.nhs.uk/conditions
Our website: www.sfh-tr.nhs.uk

Other helpful information can be found at:

- Hyperhidrosis-PIL-May-2022.pdf (wpengine.com)
- Excessive sweating (hyperhydrosis) - NHS (www.nhs.uk)
- Hyperhidrosis (excessive sweating) | DermNet (dermnetnz.org)

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222
Newark Hospital: 01636 685692
Email: sfh-tr.PET@nhs.net

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email sfh-tr.PET@nhs.net.

To be completed by the Communications office
Leaflet code: PIL202506-06-HIB
Created: February 2018 / Revised: June 2025 /
Review Date: June 2027