

Notes

You may wish to use this space to write down your experiences before and after treatment. These may include notes about what activities in your daily life hyperhidrosis prevented you from doing before treatment. Your thoughts and observations may help when you discuss your condition with your doctor.

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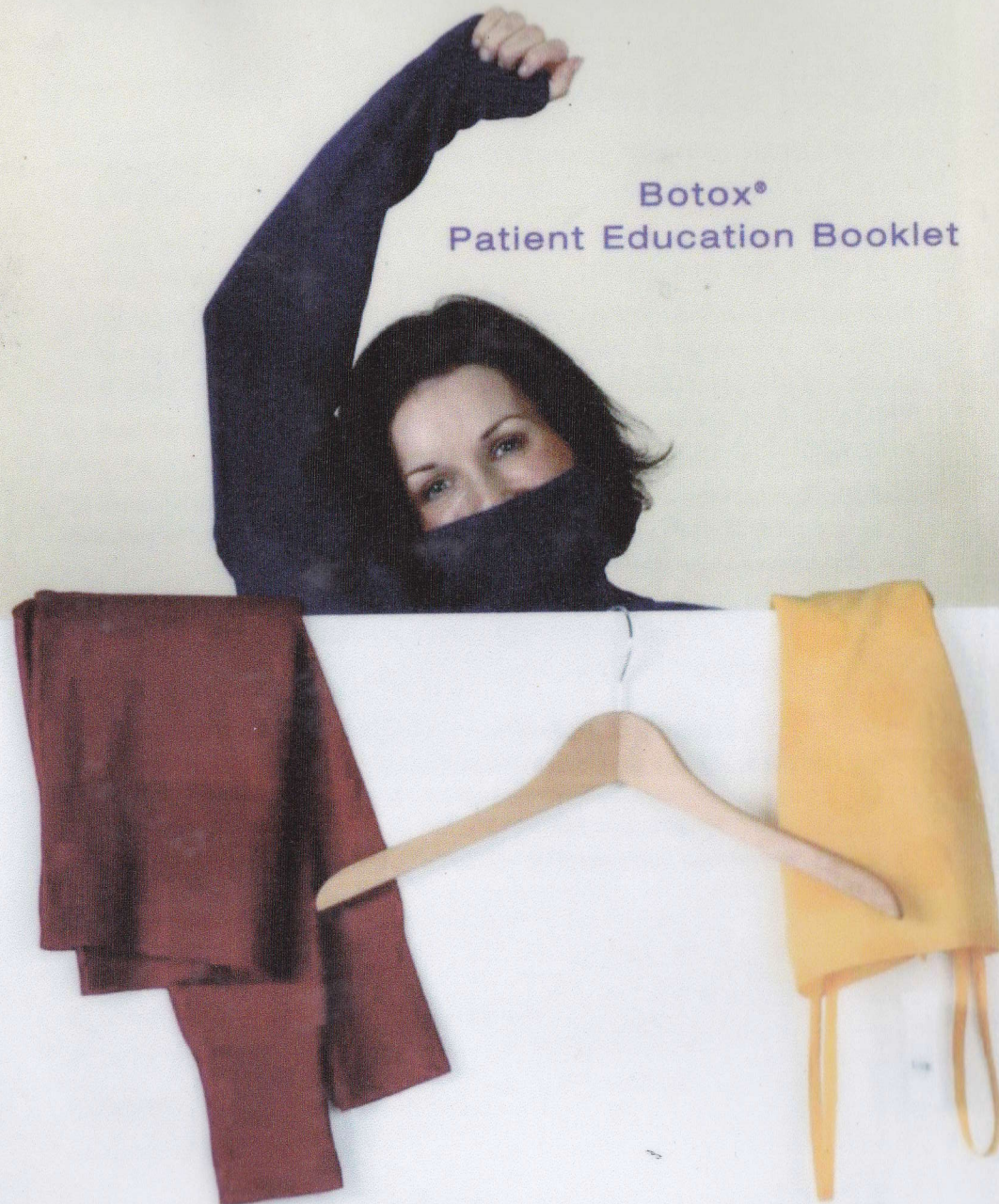
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# Change with Confidence

## Botox® Patient Education Booklet



This booklet is intended for patients who have been recommended or prescribed Botox® and explains what Botox® is and how it is used to treat axillary hyperhidrosis. If you have any questions or are not sure about any part of your treatment, please ask your doctor or pharmacist.

## 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 their temperature.

There are two main types of hyperhidrosis:

- 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. Botox® 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 overactivity 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 also true for hyperhidrosis - it is just the amount of sweating that varies.

## 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 the extra difficulties of coping with sweating. Think about how you can reduce stress during 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.

Examples of triggers include:

- exercise
- heat or cold
- alcohol, coffee or tea, smoking, hot or spicy food
- 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 is Botox® and how does it work?

Botox® 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. Botox® is also used to relieve muscle spasm in children with cerebral palsy.

Botox® is a very pure preparation of a protein, botulinum toxin type A, obtained from the bacterium *Clostridium botulinum* grown under modern methods of cultivation. When small doses are injected into the skin, Botox® blocks the actions of the nerves that supply the eccrine glands; this prevents the glands from producing sweat. Botox® blocks the nerve endings but over about 6-12 weeks new nerve endings grow to replace them. This means that the effects of treatment last for several months but eventually they will wear off.

## What happens during a course of treatment with Botox®?

Using a very fine needle, your doctor will inject a small amount (0.1-0.2 ml) of a solution of Botox® into 10 to 15 places about 1 cm 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 30 minutes.

## 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% one week after 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, this usually happens after 4 to 7 months.

Your doctor will advise you about when to return for further treatment.

## What happens if I decide to stop treatment?

The effects of Botox® 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 Botox®, 11% of patients reported a side effect. About 4.5% of patients experienced an increase in sweating in another part of the body.

Since the injection is made only into the skin, the effects of Botox® will be limited to the nerves supplying the sweat glands. Occasionally, a very small amount of Botox® may spread out from the injection site and affect a nearby nerve that supplies a muscle. 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 Botox® 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 a little discomfort at the injection sites.

If any of these effects become troublesome or you notice other effects you think might be caused by your treatment, consult your doctor.

## Is there any reason why I should not have Botox® treatment?

You should not have Botox® if you have certain conditions and there are circumstances when you need to take special care. You should tell your doctor:

- if you think you may be allergic to Botox® or anything in the preparation
- if you are pregnant, thinking about becoming pregnant, or you are breast feeding
- if you suffer from any muscle problems
- if you are using any antibiotics or drugs to relax muscles
- if you have had any problems with Botox® treatment in the past
- if you are taking any medicines, including any that have not been prescribed by your doctor
- if you have had some types of surgery to your armpits

## Should I do anything special while I'm being treated with Botox®?

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 Botox®
- 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.

## What other 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 Botox® (but not 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 3-4 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 or 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 1-2 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 glands; 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 a risk that the wounds will not heal well.

**Please remember: if you have any questions about hyperhidrosis or its treatment, always ask your doctor.**