

# HYPERHIDROSIS

## What is hyperhidrosis?

The purpose of sweating is to keep a constant body temperature around 37°C through evaporation. Hyperhidrosis is when the body makes too much sweat. This can happen in the armpits, palms, soles and rarely over the face. It affects about 1-2% of the general population. This means about 8 million people in the USA and 800,000 in Canada sweat too much. A useful website is: <https://sweathelp.org>

People suffering from hyperhidrosis are often embarrassed to reveal their problem even to their closest friends. It affects men and women equally but women seek more often advice for this problem. Hyperhidrosis is more common in children, teenagers and young adults. The armpits are affected in about 50% of the cases while the hands in only 25%. Less than 10% of these suffer from sweating over the entire body. Rarely, the forehead and the groins are also involved.

## What can be done?

### 1. Aluminum chloride/chlorhydrate (over-the-counter)

- This is found in most antiperspirants available over the counter. Its concentration is higher in antiperspirants than in deodorants. Among the aluminum salts, aluminum chloride is the most effective followed by aluminum chlorhydrate / zinc compounds and finally aluminum chlorhydrate used alone.

### 2. Aluminum chloride hexahydrate in an alcoholic solution (over-the-counter)

- This is available as a 20% alcoholic solution Drysol®. (Lower concentrations are available at 12% and 6.25%). The armpits, hands and feet must be thoroughly washed and blow dried before putting it on. The solution is applied under occlusion with Cellophane paper or plastic food wrap. Gloves may be used for the hands and plastic bags for the feet. Occlusion is kept overnight and repeated 2 to 3 nights per week. Stinging and burning sensation are common at the beginning but get better with time. This can be treated with over-the-counter hydrocortisone.

### 3. Aluminum Chloride Hexahydrate in a salicylic acid gel base (over-the-counter)

- This is available as 15% aluminum chloride in a salicylic acid gel under the name Hydrosal®. For the armpits, apply a thin layer to the dry armpits (avoid recently shaved skin) for 2 or 3 days a week. If the skin is irritated, over-the-counter hydrocortisone should be used to calm this down. For the hands and feet, apply a thin layer nightly. It may take up to 6 weeks to get the sweating under control. Once you have control, you might only need the gel applications once or twice a week or less.

### 4. Topical or oral glycopyrrolate

- This is available online as a prescription from [pharmacy.ca](http://pharmacy.ca) as a 4% solution or as 1 mg pills. The pills are taken once in the morning (1 mg). Every week, the amount can be increased by 1 mg (by adding 1 mg at morning or at night) to a maximum of 4 mg twice a day. Stop when side-effects or when sweating is under control.

### 5. Oral oxybutynin (2.5 mg pill)

- Oral oxybutynin is a second-line treatment for hyperhidrosis. When taking this medication, you will find that the sweating gets better within a few hours and comes back about a day after stopping. The most common side-effects are dry mouth (25%) and dry eyes (10%) and are related to the dose. The starting dose is 2.5 mg once a day. Every 3-4 days, the dose can go up by 2.5 mg (you can take the extra dose at night) until the sweating is under control. The maximum dose is 5 mg twice a day. At any point, you can stop taking the medication

### 6. Other treatments

- Iontophoresis (Drionic, Fisher, i2m, Dermadry): This involves using a machine that generates a low intensity electrical current to the hands and/or feet that are sitting in water baths containing ordinary tap water. Exactly how tap water iontophoresis works remains unclear.
- Botox: Botox injections can be done to decrease sweating of the armpits and/or for the hands and feet. The amounts and frequency in injections can be determined by the treating doctor
- Surgery: Surgery can be done to cut out the sweat glands in the armpits (excision of axillary eccrine glands) or to cut the nerves that control sweating of the palms.