at their most relaxed and the skin will be the driest. Initially these may cause local irritation and reducing the frequency of application may help in such scenario.

Formalin solutions may be useful in Hyperhidrosis of palms and soles.

#### **Oral treatment**

Oral therapy with anti-cholinergic medications may be tried, these include drugs like oxybutynin and glycopyrrolate. Side effects with anti-cholinergics include dry mouth, blurred vision, abdominal cramps, constipation, and difficulty in passing urine. Most patients need to be maintained on a dose that is effective without having too many side effects.

#### Procedural treatments

- If topical therapy is not effective, iontophoresis is the preferred procedure. During iontophoresis, the hands (or feet) are bathed in a pan of water while electric current is passed through it. Standard treatment is 20 minutes for hands, 40 minutes for hands and feet done at least three times weekly. If this is successful, patients can usually enter a maintenance program in which the procedure may be done every one to two weeks. During iontophoresis there is hardly any chance to receive any electric shock, as the intensity of the electric current is very low and thus the procedure is safe and comfortable.
- Botulinum toxin injection is often a next step. This treatment is expensive. Results last on average about six months.
- Several laser systems as well as other thermal devices, both infrared and microwave, have been reported to help Hyperhidrosis. These are not all yet widely available.
- Surgical procedures such as sympathectomy can be done in severe cases.

## 9. What are the self- care measures to prevent Hyperhidrosis?

- Few simple measures can be adopted to reduce the episodes or discomfort due to Hyperhidrosis.
  - Avoid hot, humid places.
- Do not get agitated due to the sweating, it can trigger a vicious cycle and aggravate the problem.
- Avoid excessive alcohol or spicy food.
- Change your socks and shoes frequently.
- Use loose fitting clothes.
- Sweat absorbent pads can be used on underarms.

#### Disclaimer:

This leaflet is only for general patient information and is not intended for self-medication. There is no legal liability of IADVL arising out of any adverse consequences to the patient subsequent to its use for self-treatment of the disease. Images are just for the depiction of the condition and are not to be used for any other purpose.

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Creative Partner



### **HYPERHIDROSIS**



# INDIAN ASSOCIATION OF DERMATOLOGISTS, VENEREOLOGISTS AND LEPROLOGISTS

- What is Hyperhidrosis?
- How can one get Hyperhidrosis?
- Is Hyperhidrosis hereditary?
- What are the precipitating factors for Hyperhidrosis?
- How does Hyperhidrosis manifest?
- What should one do if he/she develops Hyperhidrosis?
- Are there any tests to diagnose Hyperhidrosis?
- What are the treatment options for Hyperhidrosis?
- What are the self- care measures to prevent Hyperhidrosis?



#### 1. What is Hyperhidrosis?

- Hyperhidrosis is a condition characterized by abnormally increased sweating, and which is in excess amount of that required for the regulation of body temperature.
- It can be generalised sweating affecting the whole body or may be localized to certain sites.
- Although any site on the body can be affected by Hyperhidrosis, the sites most commonly affected are the palms, soles, and underarms.



#### 2. How can one get Hyperhidrosis?

- Hyperhidrosis is due to excessive activity of the sweat glands and may be primary or secondary in nature.
- Primary, or essential, Hyperhidrosis is associated with over-activity of nervous system. It may be inherited and tends to be localized to the palms, soles, underarms, face and scalp.
- Secondary, or acquired, Hyperhidrosis is usually generalized and has a variety of causes and presentations. It may be due to infections, hormonal changes, menopause, diabetes, thyroid disorders, medication reactions, neurologic disease etc.



#### 3. Is Hyperhidrosis hereditary?

- There may be a genetic basis for Hyperhidrosis. The localized type is commonly seen in other family members.
- Hyperhidrosis may also be a feature of certain inherited diseases.

#### 4. What are the precipitating factors for Hyperhidrosis?

- Hyperhidrosis usually starts in adolescence or early adulthood.
- Anxiety or stress can precipitate or worsen a pre-existing Hyperhidrosis.
- Alcohol and spicy foods can aggravate Hyperhidrosis.

#### 5. How does Hyperhidrosis manifest?

- In primary Hyperhidrosis, excessive sweating of the palms, soles, and axillae (armpits) often starts with the first social exposure of the day. It is often calm at night and most likely to be dry when the patient is relaxed and ready for bed.
- This excessive sweating can interfere with everyday activities. Hands can be so sweaty that it becomes difficult to write or use a computer.
- Sweat from the underarms often soaks through clothes, causing obvious sweat marks.
- Hyperhidrosis is socially embarrassing for the patient and affects the quality of life. It affects the patients' relationships and interferes with routine daily activities.

## 6. What should one do if he/she develops Hyperhidrosis?

Consult a dermatologist who will suggest the optimal mode of therapy and counsel the patient and his/her family about the disease.

#### 7. Are there any tests to diagnose Hyperhidrosis?

- Diagnosis is usually made by history or direct observation of excessive sweating.
- There are no specific tests for Hyperhidrosis, but the starch-iodine test is sometimes useful. It is sometimes used to find out the most active sweating areas prior to treatment with injections of botulinum toxin.

#### 8. What are the treatment options for Hyperhidrosis?

The treatment of Hyperhidrosis depends upon the site involved. If there are any underlying medical conditions these need to be addressed. Various topical, oral and procedural treatments can be tried.

#### Topical treatment

 Initial treatment involves use of topical anti-perspirants like 20% aluminum chloride. This is applied at night when the patient is usually