

Axillary Hyperhidrosis: recent trends in management

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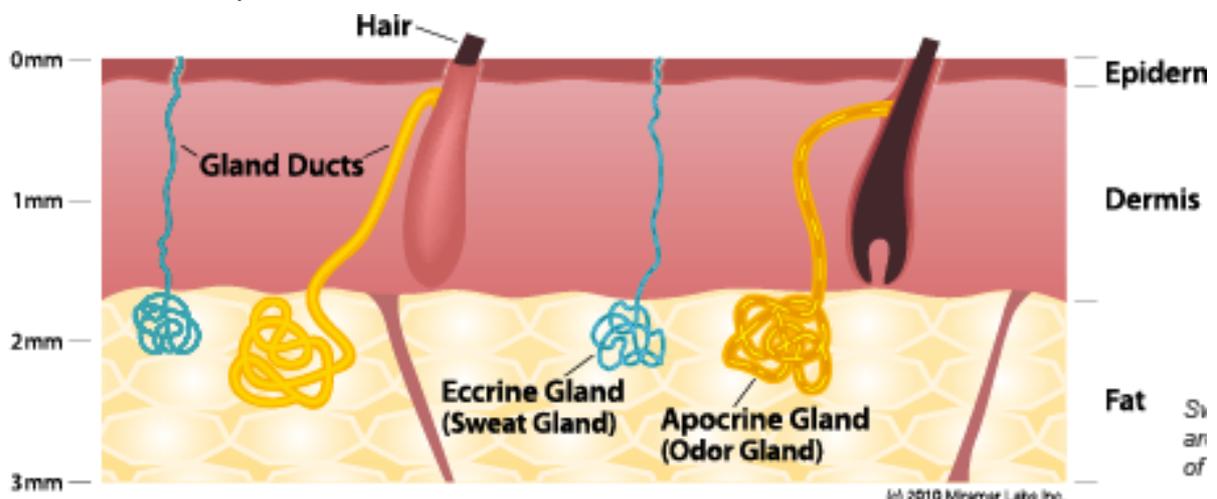
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WHAT IS SWEATING?

Sweat is essential to human survival and serves as the body's coolant, protecting it from overheating.

There are two to four million sweat glands distributed all over our bodies.

The majority of them are "eccrine" sweat glands, which are found in large numbers on the soles of the feet, the palms, the forehead and cheeks, and in the armpits.



The other type of sweat gland is called an "apocrine" gland. Apocrine glands are found in the armpits and genital region. They produce a thick fluid. When this fluid comes in contact with bacteria on the skin's surface, it produces a characteristic potent body odor.

Both the eccrine and apocrine sweat glands are activated by nerves. These nerves respond to a variety of stimuli including: • messages from the brain indicating that the body is too hot • hormones • emotions • physical activity or exercise.

WHAT IS HYPERHIDROSIS?

In some people, the body's mechanism for cooling itself is overactive — so overactive that they may sweat four or five times more than is necessary, or normal. When sweating is this extreme it can be embarrassing, uncomfortable, anxiety-inducing, and disabling. It can disrupt all aspects of a person's life, from career choices and recreational activities to relationships, emotional well-being, and self-image. This kind of excessive sweating is a serious medical condition. Its called hyperhidrosis and it affects millions of people around the world (approximately 3% of the population) but because of lack of awareness, more than half of these people are never diagnosed or treated for their symptoms.

Two Types of Hyperhidrosis

There are two types of hyperhidrosis:

- 1) Primary focal and
- 2) Secondary generalized.

HOW TO DIAGNOSE?

Diagnosis of primary hyperhidrosis can be done by asking yourself a few questions as outlined by (and published in the Journal of the American Academy of Dermatology, 2004, Vol. 51, P. 274-86)

I. ask yourself if you have experienced focal visible excess sweat for at least six months without apparent cause.

II. ask six questions

- 1) Your sweat is bilateral and relatively symmetrical.
- 2) Your excess sweat impairs your daily activities.
- 3) You experience at least one episode a week.
- 4) The onset of your excess sweat is earlier than age 25.

5) You have a positive family history.

6) You stop sweating when you're sleeping.

If you meet at least two of the above criteria, chances are you have **primary focal hyperhidrosis** and 90 percent of people who present with excessive sweating will be diagnosed with primary hyperhidrosis.

III. **Secondary generalized hyperhidrosis.**

- caused by another medical condition
- or is a side effect of a medication.
- sweating symptoms while sleeping
- usually starts in adulthood,
- treat underlying medical condition or medication condition.

AXILLARY HYPERHIDROSIS

Axillary hyperhidrosis is a condition in which the underarm sweat glands are overactive, producing much more sweat than is needed to cool the body.



Excessive underarm sweat is a daily struggle and it can interfere with nearly every aspect of your life. Excessive sweat can have devastating effects on your emotional well-being and self-image, and impact how you feel about yourself and even how others perceive you., shying away from

handshakes, hugs, or other physical contact, avoiding social situations and frustration over constantly ruining clothes with sweat stains. In fact, in a large consumer survey, people said that underarm sweat was more embarrassing to them than being overweight, having acne, cold sores or dandruff

Hyperhidrosis takes a heavy toll . Patients with axillary (underarms) hyperhidrosis were surveyed. Here's what they said:

- Excessive sweating affects my emotions (90%)
- Sweating makes me less confident (50%)
- I get frustrated by daily activities (38%)
- I feel unhappy (34%)
- I'm depressed (20%)

Treatment Overview

1. Some traditional treatments, like antiperspirants and iontophoresis, are not very effective. There is big scope for break through in this area.

2. Iontophoresis: Faradic current with disrupt the polarization on cell membrane of sweat gland that is necessary for sweat production. Iontophoresis technologies have been largely temporary relief.

3. Due to side effects, oral medications are not usually recommended as a long-term solution but they certainly have their place when treating excessive sweating on large parts of the body, or when multiple areas are affected.

4. Local surgeries (meaning surgery localized to the area being treated), such as liposuction, for treating excessive underarm sweating are becoming more common place and the results are improving, although not perfect--yet.

Laser liposuction, tumescent liposuction with dermal shaving with specialized canulae are becoming finer in techniques in present days. SkinCity has establish a safe protocol for liposuction with dermal shave in tumescent local anesthesia for axillary hyperhidrosis.

5. **ETS surgery**, although heavily advertised, is reserved for only certain severe cases of palmar hyperhidrosis (excessive sweating of the palms) that have not responded to any of the other treatment options, or combinations of the treatments. When ETS is used to treat other focal areas of hyperhidrosis, there appears to be reduced benefit and increased risks

6. **Botulinum toxin:** If you suffer from excessive sweating, you may feel like you've tried everything. You may have lost hope New treatments, like miraDry and Botox injections, have started giving relief to those who never thought they'd find it.

Botulinum toxin for under arm works well. It reduces under arm sweating to great extent. Only limitation of this therapy is its prohibitive cost and that too recurring after every 4 to 6 months. 50 to 100 units per underarms twice a year. Costing anywhere between 30000 to 70000 INR per year.

TREATMENT MATRIX

Treatments \ Areas	Underarms	Hands	Feet	Head\Face
Antiperspirants	Yes	Yes	Yes	Yes
Botox	Yes	Yes	Yes	Yes
miraDry	Yes	-	-	-
Iontophoresis	-	Yes	Yes	-
Local Surgery	Yes	-	-	-
ETS Surgery	With Caution/Last Resort	With Caution/Last Resort	-	-

7. What is the MiraDry Solution?

The miraDry procedure is safe and clinically proven to provide a significant reduction of underarm sweat.

Now, there is a lasting solution that can make embarrassing sweat a thing of the past.

Get lasting results with a quick, non-invasive procedure performed in SKIN CITY , which is the only place in INDIA where miradry is available. The miraDry procedure uses the only non-invasive technology that is US FDA cleared to provide lasting results. This is the first novel treatment option of hyperhidrosis to be introduced in nearly 7 years! miraDry is currently being introduced in the US and is available in INDIA only at SKIN CITY. As of April 2012, clinical data from two study sites affiliated with the University of British Columbia showed miraDry successful in reducing underarm sweat in over 90% of patients through the final study visit--12 months after treatment. The average sweat reduction was 82%.

And, patients rated their satisfaction with the treatment at 90%. miraDry has been developed by Miramar Labs of Sunnyvale, California.

Benefits of the miraDry Procedure

Dramatic reduction of underarm sweat

Lasting results

Non-invasive (no surgical incisions or cuts)

Minimal to no downtime



How it works?

MiraDry uses a non-invasive handheld device to deliver precisely controlled electromagnetic energy beneath the underarm skin to the specific location of sweat glands, resulting in thermolysis (decomposition by heat) of the sweat glands. . It's basically a microwave gun (utilizing 5800 MHz wavelength energy) that radiates the sweat glands in your armpits, thereby destroying them. While the sweat glands are being eliminated through electromagnetic technology, the top layers of the skin are simultaneously cooled and protected. Sweat glands do not grow back after treatment so the effect can be seen almost immediately and results are lasting.

It's safe !

While sweating is an essential body function for temperature-control, the underarms house less than 2% of the body's sweat glands. The elimination of these sweat glands should have no effect on body thermoregulation and compensatory sweating.

The safety data from the three clinical studies of Mira Dry has been reported as very good.

Its permanent !

Other treatment options, including antiperspirants and toxins, aim to temporarily disable the sweat glands for various durations - requiring repeat treatments to maintain effectiveness. And other options involve surgery, which contain inherent risks.

Only the miraDry procedure gives you lasting results with a non-invasive solution. With the miraDry Procedure, you can get on with your life and leave the burden of excessive sweat behind!

Protocol

Two procedures are typically recommended 3 months apart to maximize the results and duration. Each procedure appointment generally lasts about an hour.

You can expect minimal to no downtime following the procedure. You should be able to return to normal activities or work right after the procedure, and you can typically resume exercise within several days. Localized soreness or swelling is normal, and typically clears within a few weeks. Some patients have temporary, short-term altered sensation in the skin of their underarms or upper arms, which gradually disappears.

Now there is a real lasting solution for axillary hyperhidrosis is available and that too in India.

Is miraDry Expensive?

When you compare the cost of neurotoxin (30000-70000 INR per year) miraDry is **surprisingly less expensive** and lasting. Cost of two years neurotoxin typically balances the miraDry cost of lifelong lasting effect.