

Let's talk sweat. I'm Dr. Lyall Gorenstein, I'm the Director of Minimally Invasive Thoracic Surgery and the Columbia University Hyperhidrosis Center, specializing in treatment for hyperhidrosis or excessive sweating. AMA!

LyallGorenstein¹and r/ScienceAMAs¹

¹Affiliation not available

April 17, 2023

Abstract

Hi everyone, happy to be here! Hyperhidrosis is a common condition, approx 3% of people deal with excessive sweating from their armpits, palms or soles of feet. It can be debilitating, the sweating is often heavy and uncontrollable, causing people to really struggle in social and work situations. The good news is that hyperhidrosis is highly treatable. At the Columbia Hyperhidrosis Center, our team of thoracic surgeons and dermatologists developed a multidisciplinary approach to the management of hyperhidrosis. While surgery is extremely effective at eliminating hyperhidrosis, there may be some unavoidable side effects, so we believe non-surgical options should be tried first. Here's a little bit more about me and an interview about hyperhidrosis. Here's my proof Edit: Thank you Reddit, I've enjoyed answering your questions. I'm signing off for now, and will try to check back in later today. Happy holidays!

[REDDIT](#)

Let's talk sweat. I'm Dr. Lyall Gorenstein, I'm the Director of Minimally Invasive Thoracic Surgery and the Columbia University Hyperhidrosis Center, specializing in treatment for hyperhidrosis or excessive sweating. AMA!

LYALL_GORENSTEIN [R/SCIENCE](#)

Hi everyone, happy to be here! Hyperhidrosis is a common condition, approx 3% of people deal with excessive sweating from their armpits, palms or soles of feet. It can be debilitating, the sweating is often heavy and uncontrollable, causing people to really struggle in social and work situations. The good news is that hyperhidrosis is highly treatable. At the [Columbia Hyperhidrosis Center](#), our team of thoracic surgeons and dermatologists developed a multidisciplinary approach to the management of hyperhidrosis. While surgery is extremely effective at eliminating hyperhidrosis, there may be some unavoidable side effects, so we believe non-surgical options should be tried first.

Here's a little bit more about [me](#) and an interview about [hyperhidrosis](#).

Here's my [proof](#)

Edit: Thank you Reddit, I've enjoyed answering your questions. I'm signing off for now, and will try to check back in later today.

Happy holidays!

[READ REVIEWS](#)

[WRITE A REVIEW](#)

CORRESPONDENCE:

DATE RECEIVED:

December 22, 2017

DOI:

10.15200/winn.151386.64262

ARCHIVED:

December 21, 2017

CITATION:

Lyall_Gorenstein , r/Science ,
Let's talk sweat. I'm Dr. Lyall
Gorenstein, I'm the Director of
Minimally Invasive Thoracic
Surgery and the Columbia
University Hyperhidrosis
Center, specializing in
treatment for hyperhidrosis or
excessive sweating. AMA!, *The
Winnower* 4:e151386.64262 ,
2017 , DOI:
[10.15200/winn.151386.64262](https://doi.org/10.15200/winn.151386.64262)

© et al. This article is
distributed under the terms of
the [Creative Commons](#)

What are the non-surgical alternatives? Who's best to guide a person through these interventions? A GP? Dermatologist?

[coltranedis](#)

another option for treating sweaty hands nonsurgically is tapwater iontophoresis. It does require some commitment in time, generally recommending 30 minutes 2 or 3 times a week.

Are there particular lifestyle behaviors that should be avoided because they may exacerbate hyperhidrosis?

Let me tell you, there's nothing like teaching school and constantly being told by the students, "You're sweating." I had a new student say that to me on their first day in my class and I looked at them without blinking and said, "It's because I'm always afraid they might find me. The body hasn't turned up yet, though, so fingers crossed." The rest of the class thought it was hilarious. I'm not so sure the new student did.

[geekzapoppin](#)

that's a great come back, and I hope they never do find and the body. I really hope that your hyperhidrosis can be managed and you do not have to give up your profession as a teacher. I love your sense of humor and I'm sure you're a great teacher. I have given some recommendations on this

[Attribution 4.0 International License](#), which permits unrestricted use, distribution, and redistribution in any medium, provided that the original author and source are credited.



AMA for treating excessive sweating in different regions of the body.

I sweat a lot. I mean, more than others around me. I always have. Is this a problem or just the natural differences that occur among humans? How do I know if it's an issue for which I should seek medical attention?

[PuddnheadAZ](#)

some people for whatever reason just sweat more than others. Its not known why that is. Excessive sweating can be associated with some medical disorders, most commonly diabetes, and reactive thyroid. Obesity is also a risk factor for hyperhidrosis. Being checked out by a physician makes sense, especially when hyperhidrosis starts later in life. Most people with primary hyperhidrosis appearance excessive sweating either as children or definitely as teenagers, and it often worsens with age.

If my doctor just looks at my file everytime I complain of excessive sweating and says "I see you have a history of mental illness, it's just your emotions making you sweat", is there any test I can ask to be run to check that out? Or is it really just my emotions?

I will sweat walking down the road outside at -2C wearing a short sleeve t-shirt if that information is diagnostically relevant.

[bearhoon](#)

Thanks for your question, copying my response to PuddnheadAZ here:

some people for whatever reason just sweat more than others. Its not known why that is. Excessive sweating can be associated with some medical disorders, most commonly diabetes, and reactive thyroid. Obesity is also a risk factor for hyperhidrosis. Being checked out by a physician makes sense, especially when hyperhidrosis starts later in life. Most people with primary hyperhidrosis appearance excessive sweating either as children or definitely as teenagers, and it often worsens with age.

How do you see the future of hyperhidrosis treatments playing out? As a layman it is very hard to figure out what stage various technologies are at. For example, do you see microwave thermolysis being successfully adapted to the hands and feet in the near future? Is MiraDry the only company working on this or will anybody else pursue this? What are your thoughts on microneedle radiofrequency, laser therapy, and ultrasound therapy? Will we see significant progress in the next 5 years? Or are these technologies 25 years away?

How can patients stay up to date on possible emerging treatments?

[MercilessVogon](#)

that is a great question. As far as I know Mira dry is the only technology company currently working on treating this problem. I have been approached by several venture funds who are exploring investing in small technology companies interested in treating hyperhidrosis, however no other FDA approved therapies are currently available. The idea of using radiofrequency or some other energy source to obliterate sweat glands in the hands, or other regions is a great idea, as there seems to be little side effects beyond the local treatment area. Your question addresses indirectly the problem with ETS, which is a very effective way to eliminate sweaty hands however there is a side effect known as compensatory sweating which can be unpredictable in some people.

Probably the best way to stay connected both emerging therapies is by participating in these kinds of forums, and the [r/hyperhidrosis](#).

Hi Doc, thanks for the AMA. I'm a 32 year old male, and I've suffered from hyperhidrosis for about 15 years now - mainly axillary sweating, but as I get older it is affecting my hands and feet a lot more. To give you an idea of how bad the problem was, I used to get 6 month treatments of Botox at 100 units per side, but long term this option was too expensive, so I took the more permanent option of microwave treatment, which has significantly reduced but not eliminated the problem.

I've been told this option isn't suitable for hands or feet, so I'm wondering what options I have in the future for treatment of these areas? Also, have you had much success with the microwave treatment, or any problems/side effects? I'm considering a follow-up treatment session to cover the areas that are still causing an issue.

Additionally, I'm curious as to the underlying cause of the hyperhidrosis. To that end, I've been to see a general practitioner and an endocrinologist, and had blood tests that have all come back as inconclusive. Could there be something more serious happening?

[Wulph](#)

the treatment you had for your underarms is called Mira dry. It's an FDA approved therapy which is very effective at reducing or eliminating under arm sweating. Many people are effectively treated with one session, however some people want further reduction and opt for a second treatment. It's usually best to have the second treatment no more than 4-6 months after the initial session there aren't any real lasting side effects. There is usually some swelling that lasts a few weeks, and sometimes some numbness which can last up to 3-6 months. So far Mira dry can only be used in the underarms, there is no word yet if this technology will be able to treat hyperhidrosis of the hands.

What are the first nonsurgical steps someone should take to help their hyperhidrosis?

[Jon Boopin](#)

this really depends as to the location of the sweating. If the Hyperhidrosis is localized, such as hands or feet, the first treatment would be an aluminum chloride based topical therapy

what do you recommend for sweaty hands? I also noticed that I shed (like literally I peel off huge chunks of skin) from my fingers about once a year (lasts about a month or so). Is that connected?

[saymyameright](#)

I have seen that shedding associated with really bad sweating of the hands. There are treatments available for this. Generally recommend evaluation by your GP to make sure there are no other underlying problems. You can then treat the sweating of the hands as a primary disorder. Usually recommend trying an aluminum chloride-based topical ointment. There are many available, the prescription strength products are generally 20% aluminum chloride some of them cause skin irritation. If that is not successful Water iontophoresis is another nonsurgical treatment which can be effective it does require a significant time commitment generally 30 minutes 3 times a week if you hope to get any improvement these machines varying Price from approximately \$200 up to \$1000. Other therapies are available, Botox is frequently used to treat sweaty hands however the effects are limited lasting only a couple months before wearing off. There is a surgical procedure called ETS, it is minimally invasive, it is very safe, it is performed as an outpatient and can reliably eliminate permanently sweaty hands.

Are there ethnic or racial differences that make some people more prone to heavy sweating? I'm wondering if this is an urban legend.

[Jojuj](#)

yes there seems to be a higher incidence of palmar hyperhidrosis in the Asian population. It is not fully understood why that is.

What are the current surgical treatments for hyperhidrosis? And what are their adverse side effects?
Thanks!

[kiri-kin-tha](#)

ETS is the surgical treatment for hyperhidrosis of the hands. It is very effective in eliminating sweaty hands. There has been a lot of improvement over the past 15 or 20 years in how ETS is performed. Centers of excellence in ETS have made a lot of progress toward reducing the side effect of ETS which is compensatory sweating. We recommend T3 sympathectomy for patients with hyperhidrosis of the hands, compensatory sweating although present in many people, is usually not severe, and patient's satisfaction with ETS at our center exceeds 97%

I've a general question about sweating: Some of my relatives say that, in addition to genetic and physiological factors, the amount that you sweat can be influenced by your early childhood environment (extreme example: tropics vs. tundra). Is this just a myth? Or do you know of any scientific study that backs this up?

Thanks!

[kiri-kin-tha](#)

I don't think that childhood environment has a role in causing hyperhidrosis. Genetics certainly do, but the nature of hereditary and how genetics cause HH to be passed along is unknown

I was wondering if you had any idea why I sweat so much? I've always sweat a lot. I've been overweight and average weight, and both times I sweat roughly the same amount. It's not just when I'm not, but mostly if I'm doing something active. Even if it's just walking or carrying something, I'll sweat: no matter how hot or cold I am.

It's never really impacted me, so I've never considered treatment options. But I'm worried that it will once I graduate and get a job. Is this normal?

[brownaj010](#)

Thanks for your question, answered a similar question and sharing below.

some people for whatever reason just sweat more than others. Its not known why that is. Excessive sweating can be associated with some medical disorders, most commonly diabetes, and reactive thyroid. Obesity is also a risk factor for hyperhidrosis. Being checked out by a physician makes sense, especially when hyperhidrosis starts later in life. Most people with primary hyperhidrosis appearance excessive sweating either as children or definitely as teenagers, and it often worsens with age.

Hi, Dr. Gorenstein!

My husband suffers from hyperhidrosis under his arms, and anytime he's worked up the nerve to ask his doctor about it the answer he gets is basically "lose some weight".

Is that really the best solution? Or are there other non-surgical treatments that can be tried in the meantime? I just want him to have some relief, as this problem causes him so much distress.

Thank you so much!

EDIT: After reading your interview I was wondering if you could speak more about MiraDry as well. Is it worth it for the cost? Some people seem to have bad reactions to it - are there any factors that may foreshadow this?

[margaretiscool](#)

there is hope for your husband. If he has used a clinical strength antiperspirant without success, you should look into Mira dry. This is a technology that uses microwave energy to kill the sweat glands in the underarms. It works very well, and his weight is not an issue.

My issue is from my face/head. Is there a treatment process for this? Am I just going to end up increasing my sweating elsewhere?

[triumph0flife](#)

Thanks for your question. To answer your second question-- No, it won't increase sweating elsewhere. I'm copying my response to another regarding face sweating:

some people manifest excessive sweating not in their hands or feet but from their head, and also there torso, (chest, abdomen, and back). This could still be primary hyperhidrosis. It is often associated with activity, though the level of activity in some people may not seem excessive to generate severe sweating. This type of sweating is more difficult to treat, some topical agents can be used if the sweating is limited to the forehead region, you can try topical agents with aluminum chloride, another alternative is Botox therapy. It can be very effective for people with sweating of the face and head. Another option is a group of medications called anticholinergics. These are prescriptions which are obtained from your physician. I do not recommend ETS for people who have hyperhidrosis of the face and head.

I had surgery in 2003 for my hyperhidrosis and I just wanted to say thank you for all the work you have put into the treatment of people like me. I tried everything but Botox for my sweaty hands and finally did the surgery and it changed my life. I wouldn't be the more confident person I am today if not for doctors like you or in the career I love. Thank you for giving me my life back.

[Tallyhawk](#)

thank you for your positive comments regarding ETS for hyperhidrosis of the hands. As you know there is a lot of negative information regarding the side effects of ETS. When performed by surgeons knowledgeable about the current techniques, most people will have a significant improvement in their quality of life. Thank you for sharing your experience, there are many people out there reluctant to consider ETS, and your positive comments could change their minds.

I notice that you said that hyperhidrosis takes place in armpits, palms or soles of feet, but I sweat a lot from my forehead and torso (both front and back). Could this also be hyperhidrosis? (And a follow up that I'm sure many others will be asking in the AMA; is there anything I can do to stop my sweat glands

from working so actively that doesn't require surgery?)

[40deuce](#)

some people manifest excessive sweating not in their hands or feet but from their head, and also there torso, (chest, abdomen, and back). This could still be primary hyperhidrosis. It is often associated with activity, though the level of activity in some people may not seem excessive to generate severe sweating. This type of sweating is more difficult to treat, some topical agents can be used if the sweating is limited to the forehead region, you can try topical agents with aluminum chloride, another alternative is Botox therapy. It can be very effective for people with sweating of the face and head. Another option is a group of medications called anticholinergics. These are prescriptions which are obtained from your physician. I do not recommend ETS for people who have hyperhidrosis of the face and head.

In addition to being an excessive sweater, I also have very sensitive skin, so antiperspirants really irritate my skin making them impossible to wear. Is there anything you'd recommend as an alternative to the usual antiperspirants found in the drugstore?

[40deuce](#)

I assume you are referring to her underarms. You might consider Mira dry as an alternative. Botox is also an option however the effects only last 6 months or so.

really nice to see the topic being talked about ! I definitely sweat ALOT, from the forehead mainly, you can imagine I've been reading on the topic a bit in the past, but I haven't found many places talking about sweating from the head... is it common?

I have to admit that I am currently fat, but it has always been like that, even when I was younger and pretty fit, which makes it a problem when I try to talk about it to a doctor, I heard "lose a bit of weight" more than I'd like, sure it will help but it is not the main source of the problem as far as I know... is there any tests ?

[Rlemalin](#)

Thank you for your question, copying my response to 40deuce:

some people manifest excessive sweating not in their hands or feet but from their head, and also there torso, (chest, abdomen, and back). This could still be primary hyperhidrosis. It is often associated with activity, though the level of activity in some people may not seem excessive to generate severe sweating. This type of sweating is more difficult to treat, some topical agents can be used if the sweating is limited to the forehead region, you can try topical agents with aluminum chloride, another alternative is Botox therapy. It can be very effective for people with sweating of the face and head. Another option is a group of medications called anticholinergics. These are prescriptions which are obtained from your physician. I do not recommend ETS for people who have hyperhidrosis of the face and head.

Posting on behalf of someone else:

I sweat excessively from my head and face. Is this considered hyperhidrosis as well? Is there anything that can be done about this? I'm a young woman so unfortunately I can't shave my head or anything. My makeup runs constantly and I always look like I just got out of a shower. I've had hormonal testing and don't have any problems there. Any help is appreciated.

[stripes535](#)

Thank you for your question, yes it can still be considered Hyperhidrosis. Copying my response to a similar question:

some people manifest excessive sweating not in their hands or feet but from their head, and also there torso, (chest, abdomen, and back). This could still be primary hyperhidrosis. It is often associated with activity, though the level of activity in some people may not seem excessive to generate severe sweating. This type of sweating is more difficult to treat, some topical agents can be used if the sweating is limited to the forehead region, you can try topical agents with aluminum chloride, another alternative is Botox therapy. It can be very effective for people with sweating of the face and head. Another option is a group of medications called anticholinergics. These are prescriptions which are obtained from your physician. I do not recommend ETS for people who have hyperhidrosis of the face and head.

Is there a way to quantify the severity of the condition? At which stage would you recommend to visit a doctor?

[fullsynchro](#)

there is no easy measurement of degree of hyperhidrosis. If you feel that your sweating is impacting your quality-of-life, impacting U professionally or socially, then I would recommend seeking medical attention, and advice regarding treatment options.