



JOBS

CE

Cardiopulmonary

Geriatrics & Home Health

Neurology

Pediatrics

Sports & Orthopedics

PT Toolbox

HOME

Search Over 1026 PT Jobs

STATE SPECIALTY KEYWORDS

FIND A JOB ►

Magazine Subscription

If you are a PT or PTA living in the USA, depending on your mailing address, you are entitled to receive Today in PT magazine FREE of charge. [Click here to subscribe](#)

Free E-zines

[Click here](#) to sign up for our free e-zine and get PT news delivered to your e-mail.

Contact Us

Have comments or would like to report a problem with our website? [Click here](#)

No Sweat

Hyperhidrosis treatment includes PT

Ceri Usmar

Monday October 13, 2008

✉ [E-mail to a friend](#) | [Print This](#) | Select Text Size: + -



[+ zoom](#)

Few words sound more like their meaning than hyperhidrosis, a condition characterized by excessive sweating that is experienced by at least three percent of the global population and affects it on every level, from physiological and functional to social and psychological.

"Hyperhidrosis can make it

difficult for patients to perform their daily activities and work, and they tend to avoid social situations and experience significant psychological distress," observes Manisha Shende, MD, assistant professor and director of thoracic surgery services at Magee Woman's Hospital at the University of Pittsburgh Medical Center.

To a significant degree, hyperhidrosis is not well understood, leaving sufferers drenched during their quest for a cure.

"Most people suffering from hyperhidrosis have repeatedly had their condition dismissed by physicians, and it takes a terrible toll on the person's confidence and quality of life," notes Lisa Pieretti, MBA, executive director of the International Hyperhidrosis Society, based in Pipersville, Pa. "Healthcare providers have the power to really change lives by recognizing and treating this condition safely and effectively."

The good news is that help for hyperhidrosis is at hand, with diagnostic and treatment techniques continuing to be studied, refined, and improved.

Sweating the small stuff

Hyperhidrosis has two forms: primary and secondary. The onset of primary hyperhidrosis occurs before the age of 25, has no apparent reason, and can affect just one body area or several, usually the palms, armpits, soles, face, groin, and under the breasts. Although the mechanism behind primary hyperhidrosis remains a mystery, there are indications that it may be genetic, and the connection to the sympathetic nervous system has been all but proven.

"Theoretically, the sweat glands themselves could be abnormal and thus oversensitive to normal signals from the nervous system, but it's more likely that primary hyperhidrosis is caused by the overstimulation of the sweat glands by the normally occurring neurotransmitter acetylcholine," explains Daniel N. Ronel, MD, FAAP, FACS, a plastic surgeon in private practice in Santa Fe, N.M. "The overstimulation itself is caused by an imbalance in the nerve signals to the sweat glands, but the cause of that imbalance is not yet known."

In contrast, the excessive sweating of secondary hyperhidrosis occurs secondary to a primary condition, including thyroid dysfunction, diabetes mellitus, or pituitary disorders; injuries; and medication side effects. Secondary hyperhidrosis tends to affect the entire body, can occur at any age, and often can be resolved by eliminating the initial cause or condition.

Management plan

The termination of perspiration crosses multiple modalities, including dermatology, endocrinology, surgery, and physical therapy. Although sufferers tend to start with their primary care physician, specialists are recommended because not all general practitioners will drill down to find the actual cause of excessive sweating, or even acknowledge that it is excessive. Whether or not hyperhidrosis is curable is open to debate, but certainly it is manageable to the point that many patients consider themselves cured.

More Info

Hyperhidrosis Treatment Options

Head/face:

- Antiperspirants/topical solutions
- Iontophoresis

Underarms (axillary):

- Antiperspirants/topical solutions
- Iontophoresis
- Liposuction

Hands (palmar):

- Antiperspirants/topical solutions
- Botox injections
- Iontophoresis
- ETS

Feet (plantar):

- Antiperspirants/topical solutions
- Botox injections
- Iontophoresis

Source: *The International Hyperhidrosis Society*, www.sweathelp.org

advertisement

"Management means that treatment needs to be repeated or that symptoms recur, whereas cure implies that the treatment will eradicate symptoms permanently," Pieretti says. "Today, we really don't have a safe 'cure,' but thankfully we do have safe and effective options for management."

Such options include medical management, and more extreme surgical options. Cutting-edge technology antiperspirants such as Secret Clinical Strength, Dri-Sol, and Certain-Dri, as well as Botox injections are successful in the short term. Iontophoresis, a procedure in which a mild electrical current is passed through water or electrolyte solution to the skin's surface, is a well-documented remedy. It is unclear how iontophoresis works, but according to the American Academy of Dermatology, it does so 83 percent of the time.

Surgical procedures are more extreme, permanent, and should be considered as a last resort. Such procedures may include local surgery such as liposuction for underarm sweating, as well as endoscopic thoracic sympathectomy (ETS), in which the sympathetic nerve is either cut or clamped.

"Hyperhidrosis can be halted by excising the glands," says Ronel, who treats three to five patients each week for the condition. "Cutting the sympathetic nerves in the chest may be highly effective but can also be dangerous unless performed by an expert."

Shende concurs. "ETS is a simple procedure with huge benefits and few adverse side effects, but it must be done according to the right indicators and with the right technique," she warns. "I cut only one level of the sympathetic nerve, depending on what the patient has, where the old-fashioned way was to cut two or three."

And those side effects? Shende notes that patients may experience compensatory sweating elsewhere on the body, but she explains that it is usually so much less than the sweating averted by surgery that most are comfortable living with it.

Role for PT

PTs may well find themselves on the front lines of identifying hyperhidrosis, especially when it arises from other conditions they are treating. Bernadette Gillick, MS, PT, a PhD student in the rehabilitation science/neuroscience program at the University of Minnesota, seized the opportunity to work with iontophoresis and hyperhidrosis in 2004. She is the co-author of a groundbreaking study in which she and a team successfully utilized iontophoresis to treat and terminate a case of secondary hyperhidrosis that arose following surgery for traumatic phalangeal amputation.

"Our treatment was admittedly a little 'out of the box', but it wasn't too much of a departure," Gillick says. "As PTs, we routinely use functional electric stimulation and TENS, so when the patient was having sweating issues in addition to his postsurgical recovery, we sought a way to assist function — not just through muscles and joints, but through skin as well."

This type of bold thinking promotes progress in the profession, and PTs are in a prime position to connect dots that seem otherwise unrelated.

"We're well-trained in anatomy, physiology, and what's happening molecularly, and our objective is to improve outcomes at any level through any functionality," Gillick notes. "This is much like what happened in PT years ago in cardiopulmonary, for example — finding another road to a better outcome, whether it's through the musculoskeletal system or any other."

Ceri Usmar is a medical writer for the Gannett Healthcare Group. To comment on this story, send e-mail to pteditor@gannetthg.com.

More Info

Resources

- The International Hyperhidrosis Society: www.SweatHelp.org
- Flanagan KH, Glaser DA, King R. Botulinum toxin type A versus topical 20% aluminum chloride for the treatment of moderate to severe primary focal axillary hyperhidrosis. *Journal of Drugs in Dermatology*. 2008; 7(3): 221-227.
- Gillick BR, Kloth LC, Starsky A, Cincinelli-Walker L. Management of postsurgical hyperhidrosis with direct current and tap water. *Physical Therapy*. 2004;84:262-267.
- Weksler B, Luketich JD, Shende MR. Endoscopic thoracic sympathectomy: At what level should you perform surgery? *Thoracic Surgical Clinic*. 2008;18(2):183-191.

DELICIOUS

[About Us](#) • [Contact Us](#) • [Terms of Service](#) • [Subscriptions](#) • [Advertise](#) • [Privacy](#)

Jobs [Job Search](#) / [Post Resume](#) / [Recruiter Login](#)

News [Cardiopulmonary](#) / [Geriatrics & Home Health](#) / [Neurology](#) / [Pediatrics](#) / [Sports & Orthopedics](#) / [Past Issues](#)

Education [PT Continuing Education](#)

NursingSpectrum.

NurseWeek.

Today_{in}PT

hospitalhub.com