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Clinical Solutions

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Hyperhidrosis: An Under-Recognized, Under-Diagnosed, and Under-Treated Dermatologic Condition

Over-production of sweat impacts physical
and emotional quality of life for patients

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Hyperhidrosis, a medical condition in which excessive sweating occurs beyond what is needed to maintain normal body temperature, impacts millions of people worldwide. Aside from the physical burden of the condition, the psychological effects of the condition also have a negative impact on quality of life. By recognizing both these physical and emotional symptoms, dermatologists can help people with hyperhidrosis learn more about the condition, ways to manage it, and available treatment options.

The Science of Sweat

Sweating is an important biological process. Sweat is mostly water, although dissolved in sweat can be trace amounts of minerals, lactic acid, and urea. Sweat glands are small tubular structures in the skin that secrete sweat onto the skin via a duct. There are two types of sweat glands, eccrine and apocrine. Eccrine sweat glands are distributed throughout almost the entirety of the human body. They secrete directly onto the surface of the skin. Apocrine sweat glands are ten times larger than eccrine sweat glands. They are localized in the axilla (underarms) and perianal areas. Rather than directly opening onto the skin surface, these glands secrete sweat into the pilary canal of the hair follicle.¹

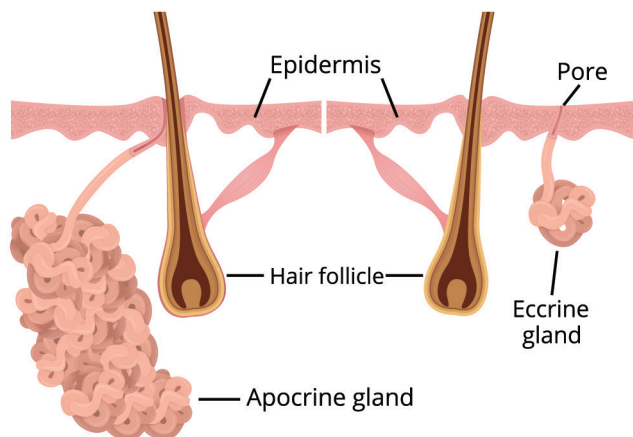


Figure 1. Anatomy of a sweat gland.

The main purpose of sweat is to cool the body through a process called thermoregulation. The brain's hypothalamus region contains thermosensitive neurons that are affected by inputs from temperature receptors in the skin. When these sensors detect an increase in

temperature, either because of heat or exertion, sweat glands will increase their production. When the sweat evaporates from the skin, it has a cooling effect due to evaporative cooling. This type of sweating occurs throughout the body.¹

In addition to heat and exertion, sweat can be triggered because of emotional stress. This type of sweating is generally restricted to the palms, soles, armpits, and forehead. The causes of emotional sweating are not as well understood as thermoregulation.

Hyperhidrosis: Definition and Prevalence

While sweating is an important biological process, some people sweat beyond what is physiologically required. Hyperhidrosis is a medical condition in which the eccrine glands are overactive and produce more sweat than is necessary to regulate normal body temperatures.²

Hyperhidrosis is classified in two ways: primary or secondary. Secondary hyperhidrosis can be the result of prescription medicines or underlying medical conditions, such as endocrine disorders, hormonal imbalances, tumors, and abnormalities of the nervous system.³ Primary hyperhidrosis arises spontaneously and the cause is not well understood, though the condition can often impact many members of the same family. It is typically localized to the underarms, palms of the hand, soles of the feet, and the face. The sweating also tends to be symmetrical.⁴

Some patients report an onset of their hyperhidrosis symptoms before the age of 12 years old.⁵ The condition affects men and women equally. The severity of hyperhidrosis can range from mild dampness to intense dripping.

A recent survey suggested that hyperhidrosis affects approximately 4.8% of the U.S. population, or more than 15 million people. It is estimated that 65% of people with hyperhidrosis, or 10 million people, suffer from sweating localized to the underarms. However, of the respondents, only 51% have discussed their condition with a healthcare professional.⁶

Burden of Disease: Physical, Social, and Emotional Impact

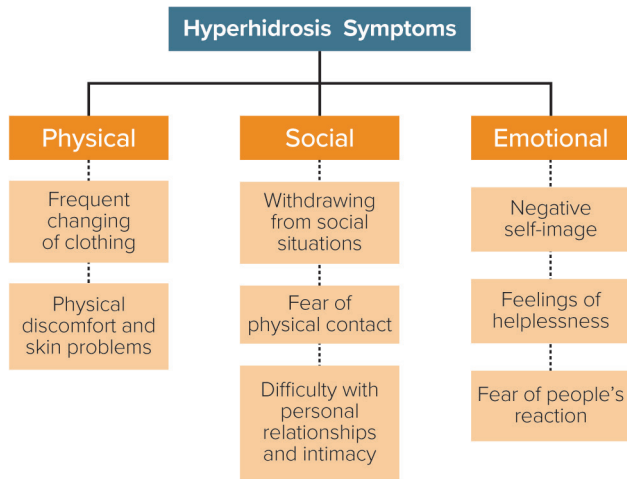


Figure 2. Hyperhidrosis symptoms.

People with hyperhidrosis report that the condition can result in severe reduction in quality of life. More than half of patients with primary axillary hyperhidrosis have severe disease that is barely tolerable and interferes with daily activities.⁶ People with hyperhidrosis report frequent changing of their shirt, frequent showering and bathing, and abstaining from activities because of their condition. In one survey, the majority of patients (61%) reported that their sweating influenced their choice of clothing, with particular attention paid to material, color and design of clothes.⁷ Additionally, hyperhidrosis can increase the incidence of other skin diseases, including infections caused by fungi and bacteria.³

Patients suffering from hyperhidrosis often report a feeling of helplessness that can negatively impact their mental well-being and overall quality of life. Many report that the effects on mental health far outweigh the physical effects of hyperhidrosis. The burden of the condition can include feeling embarrassed or less confident, and avoiding social interactions. Hyperhidrosis is known to have an extensive impact on self-image, with many people reporting low self-esteem and self-confidence.⁷ The negative impact caused by excessive sweating has been reported to be similar to the negative impact caused by psoriasis or other chronic skin diseases.⁸ Additionally, the negative effects on quality of life are currently estimated to be undervalued by healthcare professionals.³

Hyperhidrosis: Under-Recognized and Under-Treated

The identification and diagnosis of hyperhidrosis is challenging due to limitations with available diagnostic tools and overall gaps in understanding around the medical nature of the condition. Hyperhidrosis is typically diagnosed via self-assessment. However, many people suffering from hyperhidrosis do not recognize it as a medical condition and have learned ways to cope with their symptoms. Many are not aware of current and emerging treatment options, and therefore do not discuss it with their doctor. A reported 51% of people with hyperhidrosis have sought treatment for their condition and of those, only 27% will be diagnosed.⁶ Because of the physical and mental health effects, it is imperative that doctors and patients alike learn more about the disease and treatment options available.

For individuals seeking treatment, healthcare professionals play an important role in identifying and diagnosing the condition. This first step in identifying hyperhidrosis is to differentiate between primary and secondary hyperhidrosis. Primary hyperhidrosis occurs in otherwise healthy people, typically in their second or third decade of life and is characterized by excessive sweating without apparent cause. Diagnostic criteria to be aware of include family history of hyperhidrosis, frequency of sweating, and impairment of daily activities.⁹ Pattern of sweating, including the duration, frequency, volume, and areas involved can also help determine if a patient is suffering from hyperhidrosis.⁸ Another key diagnostic element of primary hyperhidrosis is the cessation of sweating when sleeping.¹⁰

Diagnostic tests include the iodine starch test, where a 1%-5% iodine solution with starch is applied to the affected areas. When sweat is produced, this solution forms a characteristic purplish sediment.⁹ However, given that hyperhidrosis sweating does not occur uniformly, talking to a patient about their symptoms may represent a more robust approach to diagnosis.

In addition to these criteria, it is also important to be aware of the burden of disease presented in hyperhidrosis. These can include, but are not limited to, embarrassment or frustration with daily activities, abstaining from social activities, changing clothes two or more times per day, and difficulty with intimate relationships.⁹

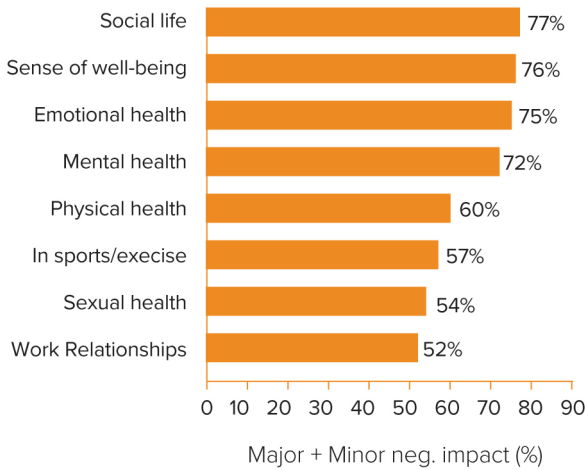


Figure 3. Percentage of individuals with hyperhidrosis reporting a negative impact in various areas.

Many people with hyperhidrosis manage the condition with lifestyle changes and over-the-counter antiperspirants.¹¹ When these are not sufficient, other treatment options including prescription antiperspirants, laser treatments, medical devices, medications, and surgery are available.¹² In addition to reducing sweat production, treatments for hyperhidrosis have been shown to improve quality of life as well.^{13,14}

Talk to your patients about treatment options available for hyperhidrosis. Learn more at www.checkyoursweat.com.

Disclosure

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