

Hidradenitis Suppurativa (HS) Patient Information Handout

*Sponsored by the Canadian Hidradenitis Suppurativa Foundation



What is hidradenitis suppurativa (HS)?

Hidradenitis suppurativa (HS) is a chronic, painful skin condition which is thought to be related to a genetic weakness in the wall of hair follicles in the skin. It often presents with blackheads, pimples, boils, abscesses and scars in the armpits, underneath the breasts, groin and/or buttocks. Occasionally, HS lesions can appear on the abdomen or the back of the neck.

There are 4 main processes involved in the formation of HS lesions:

- 1) Abnormal structure of skin cells that line the hair follicles causes oil and dead skin cells to build up in the hair follicle. The hair follicle is weaker than normal and more prone to rupturing.
- 2) Hormonal influence (increased oil production increases clogging of the hair follicles)
- 3) Build-up of oil and dead skin cells causes rupture of the hair follicle and this leads to inflammation of the surrounding skin. This causes boils, which are typically seen in HS.
- 4) Over time, inflammation can cause tunneling of skin that extends past the initial boil. This can lead to scarring and development of sinus tracts (tunnels that form underneath the skin) that can drain fluid.

What are the Potential Triggers for an HS Flare-Up?

- Smoking
- Hormones (Females can get flares before/during their menstrual periods)
- Skin friction
- Sweating
- Shaving or waxing hair in affected areas
- Diet (high consumption of refined sugars/carbohydrates, skim milk products, protein shakes that contain whey or casein protein)
- Obesity

How is HS Treated?

Treatment of HS is multi-factorial. You may need multiple different treatments to improve your HS.

General Measures:

- Wear loose-fitting, moisture-wicking, absorbent fabrics
- Avoid picking/squeezing/rubbing the lesions, as this can cause them to become bigger.
- Consider weight loss strategies if you are overweight or obese, as this can reduce skin-to-skin friction in the areas where you have HS.
- Quit smoking as smoking can make HS worse. (resources available at: www.quitsmoking.ca)
- Adopt a low glycemic index (low sugar/refined carbohydrate diet), avoid skim milk products (other dairy products are ok) and avoid protein shakes that contain whey or casein protein.

Medical, Surgical and Laser Treatments:

- **Topical Antibiotics:** Clindamycin is a topical antibiotic that can be applied to affected areas.
- **Topical Resorcinol (15% cream):** This is a topical cream that needs to be filled at a compounding pharmacy. This cream helps to reduce plugging of hair follicles and can help treat active HS lesions. We recommend using this daily for 12 weeks to help resolve current lesions (as tolerated, as this medication can cause skin peeling) and when you have an HS flare-up of a current or new lesion.

- **Zinc Supplement:** 100 mg oral zinc supplement once a day for 3-4 months. This has been shown to reduce inflammatory lesions in HS patients. Zinc competes with copper for absorption in the gut and copper deficiency may lead to anemia. Therefore, you should take a 4 mg copper supplement every day, at a different time of day than when you take the zinc supplement.
- **Hormonal Therapies:** Reduces plugging of the hair follicles by blocking the activity of androgen hormones.
 - For female patients, we may recommend **an oral contraceptive pill that contains drospirenone or cyproterone acetate**, as these have anti-androgen activity. These pills are not recommended if you experience migraine headaches with aura, if you smoke tobacco products and are over the age of 35, or if you have ever had a blood clot in the leg (deep vein thrombosis/DVT) or in the lungs (pulmonary embolism/PE).
 - Alternatively, **spironolactone** is another anti-androgenic oral medication that can be used to treat HS. If you have low blood pressure, this may not be the best treatment for you as spironolactone may slightly lower your blood pressure. This treatment is not recommended if you have severe kidney disease or if you are trying to become pregnant, as it can cause feminization of a male fetus.
 - **Metformin**: This medication is used to improve insulin sensitivity in people with diabetes. Insulin is a hormone that regulates blood sugar levels. People with type 2 diabetes develop insulin resistance, which is characterized by high insulin levels, as the body is unable to effectively use insulin to regulate blood sugar. Metformin helps the body to use insulin more effectively. Metformin has been used successfully to improve HS, as it can help to reduce the levels of androgens from excess insulin levels.
- **Oral Antibiotics:** HS is not an infectious or a contagious condition, but certain antibiotics have anti-inflammatory effects and can be used to treat HS. Minocycline and doxycycline are commonly prescribed antibiotics that are typically taken daily for 3 months.
- **Biologics:** Adalimumab is the only biologic medications that is approved by the FDA to treat HS. This treatment is given as an injection and it is an anti-inflammatory medication that blocks production of TNF- α , which contributes to the inflammation in HS lesions. Biologics are reserved for patients with moderate to severe HS who have not seen improvement of their HS with other treatments. Additionally, clinical trials are ongoing for other biologics—ask your dermatologist if they have any ongoing research trials!
- **Laser Hair Removal:** Laser hair removal selectively targets and destroys hair follicles, which can help prevent new HS lesions from forming in hair-bearing areas of the underarms and pubic area.
- **Intralesional Corticosteroid Injections:** Corticosteroids can be injected directly into HS lesions to reduce pain and inflammation from flare-ups and this can help lesions to resolve more quickly. Ask your dermatologist if their office will allow you to book an urgent, fit-in appointment for these injections.
- **Botulinum Toxin Injections:** Botulinum toxin is used to treat excessive sweating (hyperhidrosis) and although off-label for HS, some studies have found that this can help to reduce the number of HS lesions in treated areas. Some drug insurance plans may cover the cost of this treatment.
- **Deroofing Surgery:** This is an in-office procedure that is performed under local anesthetic to treat lesions which recur in the same spot or sinus tracts underneath the skin. Deroofing surgery can improve your quality of life by eliminating pain and drainage from problem spots and these lesions often do not come back in the same spot! Ask your dermatologist if you would be a good candidate for deroofing surgery!

Take-Home Messages:

- 1) HS is not an infectious or contagious disease! HS is also not caused by poor hygiene!
- 2) There is hope! There is a lot of research on new treatments for HS - your dermatologist is here to help!

Additional Information on HS:

HS eBook: An in-depth resource for HS patients that was written by dermatologists who are a part of the national Canadian Hidradenitis Suppurativa Foundation can be found at <https://hsfoundation.ca/>