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## Hidradenitis suppurativa

Hidradenitis suppurativa is an inflammatory skin disease that is characterised by recurrent boil-like lumps (abscesses) that culminate in pus-like discharge, difficult-to-heal open wounds and scarring. It commonly occurs on apocrine sweat gland-bearing skin such as in the groin, the underarms and under the breasts. It is also known as 'acne inversa'.

### Hidradenitis suppurativa



### What causes hidradenitis suppurativa and who gets it?

The exact cause of hidradenitis suppurativa remains unclear. What is understood is that the condition is a disorder of follicular occlusion. This begins with follicular plugging that obstructs the apocrine gland ducts and perifolliculitis around the ducts. This is followed by rupture of the follicular epithelium, bacterial infection and formation of sinus tracts between abscesses under the skin, all which lead to the characteristic symptoms and signs of hidradenitis suppurativa.

The following are thought to play a role in the development of hidradenitis suppurativa.

- Genetics – frequently reported cases of hidradenitis suppurativa affecting multiple members of a family
- Sex hormones – apocrine sweat glands are stimulated by androgen and suppressed by oestrogen (exact role these hormones play remains controversial)
- Endocrine factors – obesity, [hirsutism](#) and [acne](#) are common findings among women with hidradenitis suppurativa
- Cigarette smoking – hidradenitis suppurativa appears to occur more frequently in smokers than non-smokers

Women are affected by hidradenitis suppurativa three times as often as men; the reason for this is unknown. The condition most commonly occurs between 20–40 years and coincides with the post–pubertal increase in androgen levels. Disease onset rarely occurs before puberty and after menopause.

## What are the signs and symptoms of hidradenitis suppurativa?

The extent and severity of the disorder varies widely between individuals. Initially a firm pea-sized nodule (0.5–1.5 cm diameter) resembling acne may appear on one site. These lesions may resolve spontaneously or within hours to days rupture and ooze a pus-like discharge. These may heal without treatment but at a later time new lesions recur in the adjacent area. If uncontrolled, this leads to development of larger lesions (golf ball size), sinus tract formation, and involvement of multiple sites. Three distinct clinical stages have been defined for the condition.

- Stage 1 – solitary or multiple, isolated abscess formation without scarring or sinus tracts
- Stage 2 – recurrent abscesses, single or multiple widely separated lesions, with sinus tract formation
- Stage 3 – diffuse or broad involvement, with multiple interconnected sinus tracts and abscesses.

Disease may spread to involve less commonly associated sites including the nape of the neck, waistband and inner thighs. Anogenital involvement most commonly affects the groin, mons pubis, vulva, sides of the scrotum, perineum, buttocks and perianal folds. The abscesses and sinus tracts can be painful.

## What is the treatment of hidradenitis suppurativa?

Medical management of hidradenitis suppurativa is difficult. The aim is to catch the disease in its early stages and treat and control these milder forms. Weight loss in obese patients and smoking cessation are recommended.

### General measures include:

- Wash with [antiseptics](#) or [acne preparations](#) to reduce skin carriage of commensal bacteria. Hydrogen peroxide solution and medical grade [honey](#) have been found helpful.
- Wear loose fitting clothing to avoid friction.
- Follow a low glycaemic diet, and aim for ideal body weight.
- Don't smoke.

### Medical management includes:

- Topical [anti-acne antibiotics](#) such as [clindamycin](#) or [erythromycin](#) applied to affected areas in combination with benzoyl peroxide.
- Short course of oral [antibiotics](#) for acute abscesses (red, hot painful discharging lump) due to staphylococcal infection. [Flucloxacillin](#) or dicloxacillin are the most suitable, except in the case of penicillin allergy.
- Prolonged courses of [tetracycline](#) or [metronidazole](#) (minimum 3 months) for their anti-inflammatory action.
- Three-month courses of the combination of [clindamycin](#) and [rifampicin](#) may be effective.
- Trial of oral contraceptive pill for 12 months or more – usually [Diane-35](#) or [Estelle 35](#), which contain moderate oestrogen and cyproterone acetate. The antiandrogenic diuretic spironolactone may also be of benefit.
- Oral retinoids (vitamin A derivatives) for 6 to 12 months, especially [isotretinoin](#), which are very effective for acne, may also help hidradenitis suppurativa.
- [Systemic corticosteroids](#) or intralesional corticosteroids (injections directly into the nodules) may reduce severe inflammatory lesions.

### Surgical management includes:

- Incision and drainage of abscesses – at the very painful pointing stage.
- Persistent hidradenitis lumps may be excised after several months of conservative treatment (i.e. waiting

and/or antibiotics).

- Radical excisional surgery is reserved for very severe cases of hidradenitis suppurativa.
- Experimentally, [laser](#) ablation may be useful in some patients.

Carbon dioxide laser treatment is a relatively new treatment for hidradenitis suppurativa. It is suitable for those with mild to moderate/severe disease and doesn't require hospitalisation.

#### Related information

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#### References:

- Slade DEM, Powell BW, Mortimer PS. Hidradenitis suppurativa: pathogenesis and management. The British Association of Plastic Surgeons 2003; 56: 451–461
- Book: Textbook of Dermatology. Ed Rook A, Wilkinson DS, Ebling FJB, Champion RH, Burton JL. Fourth edition. Blackwell Scientific Publications.

#### On DermNet NZ:

- [Acne](#)
- [Boils](#)
- [Hirsutism](#)

#### Other web sites:

- [H.I.D.E. UK](#) Support Group
- [HS-USA](#) Support Group
- [Hidradenitis Suppurativa Foundation, Inc.](#)
- [Hidradenitis Suppurativa](#) – emedicine dermatology, the online textbook

**Author:** Vanessa Ngan, staff writer, [Amanda Oakley](#), Dermatologist

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