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## Vulval intraepithelial neoplasia

### What is vulval intraepithelial neoplasia?

(Squamous) vulval (or vulvar) intraepithelial neoplasia (VIN) is a pre-cancerous skin lesion of the vulva, and was previously known as Bowen's disease of the vulva.

The presence of abnormal cells may occur anywhere on the vulvar skin. VIN is not invasive cancer but may eventually become invasive [squamous cell cancer](#) if left untreated.

In 2004, the International Society for the Study of Vulvovaginal Diseases ([ISSVD](#)) has reclassified VIN. The term VIN 1, previously used to describe a mild change in the lower epithelial lining, will no longer be used – these changes have been found to be due to irritation or non-precancerous [viral wart infection](#). The term VIN now refers to high grade abnormal squamous lesions only (these were previously known as VIN 2 and VIN 3).

VIN (usual type) can be described by the pathologist as warty, basaloid or mixed. These types of VIN are due to infection with cancer-forming (oncogenic) types of human papillomavirus.

A less common 'differentiated' type of VIN is not caused by human papillomavirus and is associated with rapidly growing squamous cell carcinoma.

VIN, unclassified type, is rare and is of unknown origin.

### Why does it occur and who is at risk?

The exact cause(s) of VIN are unknown. However, the following factors have been associated with the condition:

- Human papilloma viruses, the cause of [genital warts](#). Only oncogenic types of HPV (especially types 16 and 18) are associated with VIN, and these don't cause visible warts.
- [Herpes simplex](#) virus type 2 (HSV-2) is less strongly associated.
- Smoking; it is thought that the cancer promoting agents in cigarettes are concentrated in the skin of the lower genital tract.
- Immunosuppression.
- VIN, differentiated type is seen in some patients who have vulval [lichen sclerosus](#). They tend to be older than patients with VIN, usual type.

A [skin biopsy](#) is required to confirm the diagnosis and pick up any early cancers.

VIN may occur in women of all ages, although currently an increased number of younger women (even teenagers) are showing up with the condition. It also appears that fair skinned women are more at risk than their darker skinned counterparts. The average age of women with VIN is 45–50 years.

It is very important to have annual cervical smears as 50% of women have associated abnormalities including cervical intraepithelial neoplasia (CIN) or cancer. VIN does not affect fertility.

### How does it present?

Most patients present with the following symptoms:

- Mild to severe vulvar itching

- Mild to severe vulvar burning
- One or more slightly raised well defined skin lesions that may be pink, red, brown or white in colour

### [Images of VIN](#)

## What treatments are available?

If left untreated, VIN may go away by itself (especially the type of VIN known as [Bowenoid papulosis](#)) or it may turn into an [invasive cancer](#) in later years. On average it takes well over a decade for VIN to go onto cancer.

Usually all VIN lesions are treated to reduce the risk of developing cancer. The mainstay of treatment is to remove all affected tissue. This may be done with [laser ablation](#) or [surgical excision](#), usually under a general anaesthetic.

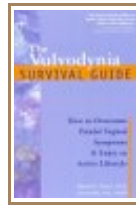
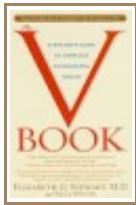
Other treatments that may be tried include [imiquimod](#) and [5-fluorouracil](#) creams. These cause quite severe inflammation in the process (several weeks) and will not be tolerated by all women.

Careful follow-up after treatment is essential as VIN may recur.

### Related information

#### Self-help books

- [The V Book: A Doctor's Guide to Complete Vulvovaginal Health](#)
- [The Vulvodynia Survival Guide: How to Overcome Painful Vaginal Symptoms & Enjoy an Active Lifestyle](#)



#### On DermNet NZ:

- [Genital skin problems](#)
- [Bowenoid papulosis](#)

#### Other websites:

- [Vulvar Intraepithelial Neoplasia \(VIN\)](#): Department of Obstetrics and Gynecology, University of Iowa Health Care

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DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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