

# Vulvar Intraepithelial Neoplasia (VIN)

## What is Vulvar Intraepithelial Neoplasia (VIN)?

VIN is abnormal vulvar skin growth that can turn into cancer. It can start anywhere on the vulva.

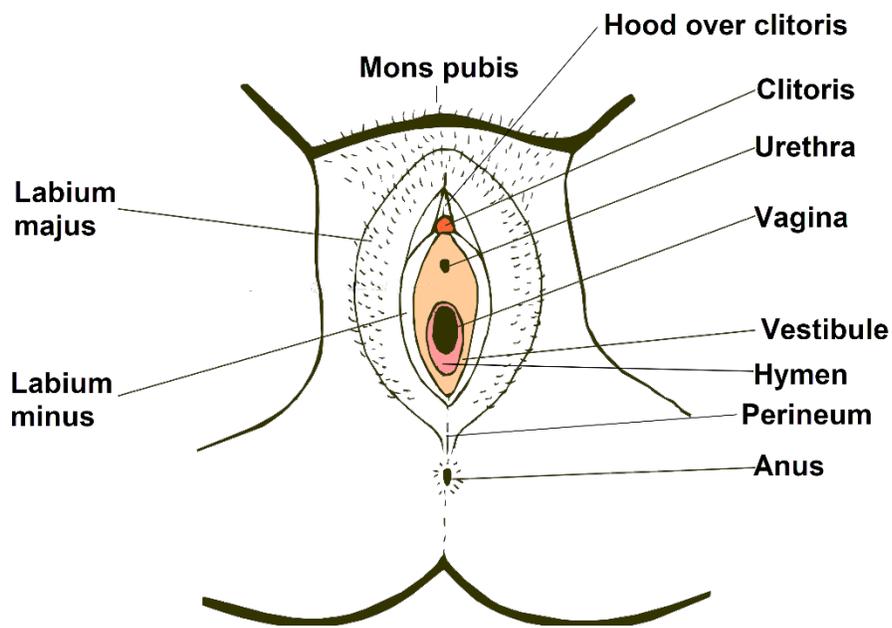
There are two types of VIN with different causes:

- Chronic infection due to certain types of human papilloma virus (HPV)
- Chronic inflammation caused by vulvar diseases (diseases such as lichen sclerosus or lichen planus)

- **Chronic** means lasting a long time.
- **Inflammation** is the body's response to injury, infection, or disease. The 4 signs of inflammation are redness, heat, swelling, and pain.

## What is the vulva?

The **vulva** (see image below) is the part of the body that includes all the external female genital parts from where pubic hair grows (mons pubis) to the opening that stool comes out of (anus). In between are the large outer lips (labia majora), small inner lips (labia minora), clitoris, the opening that urine comes out of (urethra), and the opening to the vagina (vestibule).



Miguelferig, CC0, via Wikimedia Commons

## **HPV-associated VIN**

The type of VIN that is associated with chronic HPV infection has 2 names:

- **High-Grade Squamous Intraepithelial Lesion (HSIL)**
- **Usual-Type Vulvar Intraepithelial Neoplasia (uVIN)**

Your doctor may use either one of these names, they are both correct.

There are at least 180 types of HPV; 40 of them affect the genitals. Chronic infection with types 16 and 18 are most likely to cause **vulvar HSIL (uVIN)**. It is spread by skin-to-skin contact. Cigarette smokers and people with a weak immune system have a higher risk of developing **vulvar HSIL (uVIN)** than healthy, non-smokers.

If untreated, **vulvar HSIL (uVIN)** can turn into cancer. Fortunately, this process usually takes years so there is time for diagnosis and treatment if you get regular exams and don't ignore symptoms. For a small number of women (about 1 out of 8) it will go away within a year. People who get the complete series of HPV immunization shots (Gardasil) have a very low risk of getting any HPV-related disease including **vulvar HSIL (uVIN)**.

## **Chronic-vulvar-disease-associated VIN**

The type of VIN that is associated with chronic vulvar disease is called **differentiated VIN (dVIN)**. Chronic inflammation from diseases such as lichen sclerosus or lichen planus is the likely cause of **dVIN**. It is much less common than vulvar HSIL (uVIN), but if not treated will turn into cancer for 85 out of 100 women who have it.

The average age at diagnosis is between age 40 and 50. Treating lichen sclerosus and lichen planus to prevent chronic inflammation will reduce the

risk of dVIN. If you have one of these diseases you will get an exam every 6 months to find changes that need a closer look.

### **What are the symptoms?**

VIN of any type can be present without any symptoms, it can also cause itching or burning. Symptoms often are focused in one spot or area of the vulva.

Appearance varies, but there is often a well-defined bump or area of thick skin that can be any color.

### **How is it diagnosed?**

Diagnosis may include a special kind of exam technique using magnification (**vulvoscopy**). We will likely remove a small piece of skin (**biopsy**) and send it to the laboratory for diagnosis. We will give you a shot of numbing medicine before the skin is removed.

### **How is it treated?**

Treatment depends on the type, extent (spread), and location of the disease. The goal is to remove all of the abnormal tissue. We either cut it out or use focused beams of light to destroy it (**laser ablation**). This is done in an operating room. We will give you medicine to make you sleep during the surgery.

If you have dVIN, preventing chronic inflammation by treating lichen sclerosus (or similar chronic diseases) will reduce your risk of recurrence. If you smoke, we will talk with you about quitting.

### **Follow-up**

Routine check-ups after treatment are necessary so we can detect recurrent disease early. These exams are done every 6 to 12 months, depending on the type and severity of your disease.

## Resources

- “Vulvar Cancer” (American Cancer Society):  
<https://www.cancer.org/cancer/vulvar-cancer.html>
- “HPV: Fast Facts” (National HPV and Cervical Cancer Prevention Resource Center-American Sexual Health Association (ASHA))  
[https://www.ashasexualhealth.org/human\\_papilloma\\_virus/](https://www.ashasexualhealth.org/human_papilloma_virus/)

Disclaimer: This document contains information and/or instructional materials developed by Michigan Medicine for the typical patient with your condition. It may include links to online content that was not created by Michigan Medicine and for which Michigan Medicine does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Author: Diana Stetson PA-C  
Reviewers: Kathryn Welch MD  
Edited by: Karelyn Munro BA

Patient Education by [Michigan Medicine](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License](#). Last Revised 11/2021