

## Interpreting Cytology Results

### Cytology (Anal Pap)

**Negative or normal**-When the pathologist examined the cells from the Pap smear under a microscope, s/he found no abnormal cells or signs of HPV [1]-related changes

Anal cytology is a fairly good indicator of who should be examined and who might have HSIL, but it is not the best way to determine the severity of SIL nor is it the best way to diagnose invasive anal cancer. It is our recommendation that any level of abnormal anal cytology should be followed up with further examination with DARE at a minimum and ideally, when it is available, HRA [2] with biopsies of the most abnormal areas.

**ASCUS-Atypical Squamous [3] Cells of Undetermined Significance**-This essentially means that some cells that were seen were mildly abnormal. ASCUS results can be caused by a variety of factors including inflammation or infection, and are not necessarily an indicator of precancerous changes.

**LSIL-Low Grade Squamous [3] Intraepithelial Lesion**-This refers to mild dysplasia [4]. This type of lesion [5] rarely becomes cancerous. Some warts are identified as LSIL on biopsy.

**HSIL-High Grade Squamous [3] Intraepithelial Lesion**-This is moderate or severe dysplasia [4]. These lesions can transform into cancer over time, but they do not always do so.

**Having HSIL does not mean that you have cancer, and it doesn't necessarily mean that the lesions will ever develop into cancer.** Many people have these lesions for years and are unaware that they have them as they are asymptomatic.

### Follow up on cytology

Following completion of your anal exam, your provider will discuss the meaning of your results and formulate a plan for treatment, further evaluation, or for continued follow-up. With the results of anal cytology, DARE, and HRA [2] with biopsy of any suspicious lesions we should be able to provide you with an assessment of your risk for anal cancer. A treatment plan is based on the extent and severity of disease found factoring in whether someone has symptoms and the status of their immune system.

1. A normal DARE, negative anal cytology, and no lesions [5] seen on HRA [2] represent a completely normal exam. Patients should continue screening based on their immune status and their anticipated risk of exposure to HPV [1]. For HIV-negative MSM and no prior history of anal lesions, anal cytology screening every 2 to 3 years should be adequate. HIV-positive persons should be seen annually.
2. Patients with ASCUS on anal cytology and a normal DARE with no significant lesions noted on HRA [2] who are HIV-negative could be seen once a year. HIV-positive patients could be seen every 6 months.
3. Patients with LSIL on anal cytology, normal DARE and no evidence of HSIL during HRA [2] could be followed every 6 months. Patients with LSIL are at increased risk to progress

- to HSIL and should continue to be followed regularly.
4. Patients with LSIL on anal cytology who have large intra-anal warts or who are symptomatic from their warts should be offered treatment. Following treatment, patients should continue to be followed at intervals determined by their response to treatment and depending on their immune status.
  5. Patients with HSIL on anal cytology, a normal DARE and no lesions found on HRA [2] should be followed more frequently, which could be at 4 month intervals. In this case the HSIL cannot be treated unless it can be located on HRA. It seems reasonable to follow these patients in a similar fashion to patients with untreated HSIL.
  6. Patients with HSIL identified in biopsies should be treated if at all possible regardless of immune status. Currently we think this is the best way to prevent anal cancer, although this has yet to be proven. **Only a small number of people with HSIL will go on to progress to invasive anal cancer, but at the present time we have no certain way of identifying who will and who will not progress.**
  7. Patients with HSIL who cannot be treated should be followed closely and regularly. As previously stated only a small number of people with HSIL will progress to cancer, but when progression to cancer occurs, lesions often seem to grow at a more rapid pace. Based on our experience in several patients who had untreated HSIL who developed detectable anal cancers over a 3 to 4 month period, we recommend that these patients should be seen every 4 months at a minimum. We think this interval will permit the early detection of a cancer should it develop. Cancers diagnosed earlier when they are smaller are more likely to be cured and often more easily cured than larger more advanced cancers.
  8. Patients with exams that are suspicious for invasive anal cancer and who cannot be biopsied in clinic or in whom the exam is not adequate should be referred to an experienced surgeon for an examination under anesthesia.
  9. Patients diagnosed with invasive anal cancers should be referred to providers experienced in managing this type of cancer.

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**Source URL:** <https://analcancerinfo.ucsf.edu/interpreting-cytology-results>

#### Links

- [1] <https://analcancerinfo.ucsf.edu/hpv>
- [2] <https://analcancerinfo.ucsf.edu/hra-0>
- [3] <https://analcancerinfo.ucsf.edu/squamous>
- [4] <https://analcancerinfo.ucsf.edu/dysplasia>
- [5] <https://analcancerinfo.ucsf.edu/lesion>