

Obtaining a specimen for anal cytology

Since not all people infected with HPV [1] will have problems we want to focus our attention on the ones in whom HPV [1] has led to potentially precancerous changes. The best way to do that is by sampling the cells of the anus with a Pap smear. An anal Pap smear is performed to screen for anal HSIL in the following manner.

- Patients are asked not to douche or have an enema or insert anything into their anus for 24 hours prior to an anal cytology exam.
- Lubricants should not be used prior to obtaining a cytology sample because the lubricant may interfere with the processing and interpretation of the sample.
- We usually obtain the sample with the patient lying on their left side, but other positions are acceptable.
- The buttocks are retracted to visualize the anal opening and a Dacron or polyester tipped swab moistened in tap water is inserted for approximately 2 to 3 inches into the anus. The swab can be felt to pass through the internal sphincter so the sample is obtained from the junction of the anus and rectum, which is where most of the HPV [1]-related lesions are found. This area is slightly above the region that corresponds anatomically to the dentate line.
- The swab is rotated 360 degrees with firm lateral pressure applied to the end of the swab, such that it is bowed slightly and then it is slowly withdrawn over a period of 15 to 30 seconds from the anus, continuing to rotate the swab in a circular fashion. The lateral pressure ensures that the mucosal surface, rather than rectal contents are sampled.
- The swab is either smeared directly onto a glass slide and fixed as a conventional Pap smear by placing it into alcohol, or the swab is placed in a preservative vial and vigorously agitated to disperse the cells for liquid based cytology.
- Regardless of method used, the sample must be fixed quickly within 15 seconds in order to avoid drying artifact, which occurs easily and makes interpretation difficult.
- The slides are stained using the Papanicolaou stain, hence the term Pap smear, and then are examined by the pathologist.

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Links

[1] <https://analcancerinfo.ucsf.edu/hpv>