

Screening for cervical cancer – service description

HPV infection

HPV infection is very common. Approximately 70–80% of Finnish women get an HPV infection at some point in their lives. 15–25% of young women are HPV-positive. Usually, the infection lasts from six months to two years, after which the virus disappears. However, recovery from the infection does not protect you against future infections. In some cases, the virus remains permanently in the mucous membrane of the external uterine orifice without causing any cell changes. Some permanent infections evolve into precancerous conditions, and a small portion of these conditions develop into cancer.

HPV viruses are divided into high-risk and low-risk types. Both low-risk and high-risk types of HPV can be found in cases of mild cell changes, but serious precancerous changes are always related to a high-risk HPV infection. High-risk types of HPV infection are present in nearly all cases of cervical cancer. A so-called high-risk HPV test helps detect a prolonged high-risk HPV infection before the development of microscopic early changes.

Identification of cell changes

Cervical cancer develops through precancerous conditions. Cervical cancer can be easily controlled by screening, because the cancer development process takes years and its early stages can be detected microscopically. Cell changes indicating the early stages of cervical cancer are detected in a Pap test using a microscope. This allows the development of cancer to be prevented through treatment.

SCREENING ACTIVITIES

Under the national decree on screening and the Health Care Act, wellbeing services counties are obliged to organise a mass cervical cancer screening for women aged between 30 and 65 every five years. Most municipalities provide screening for women at the ages of 30, 35, 40, 45, 50, 55, 60, and 65.

The organisation of cervical cancer screenings began in Finland in the mid-1960s. Screening has proven to be an effective means of combating cervical cancer. Thanks to screening, over 200 cancer deaths are avoided each year, and approximately 500 cancer cases can be prevented. Cervical cancer is the second most common cancer among women worldwide, but in Finland, thanks to mass screenings, it is only the 18th most common. Maintaining these good results in our country requires high participation rates in screening.

For more information on national screenings, visit [the website of the Finnish Cancer Registry](#).

FIMLAB'S SCREENING SERVICE

Accessing screening examinations

Fimlab provides screening services on behalf of the wellbeing services county, acting as the screening operator. Fimlab receives information about those invited to screening from the Finnish Cancer Registry's Mass Screening Registry. The selection of those to be screened is based on the home municipality information on the first day of the screening year. The same selection practice is uniform throughout Finland, ensuring that everyone eligible for screening receives an invitation. The invitation comes from the screening implementer

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on behalf of the home municipality indicated by the Mass Screening Registry, even if the person changes their home municipality during the year.

Fimlab invites those to be screened with a personal invitation letter. The schedule for sending invitation letters extends from January to the end of September. If the registry does not have the person's address (e.g., due to non-disclosure for personal safety reasons), the invitation letter cannot be delivered. A person of screening age who has not received an invitation by the end of September can contact Fimlab's customer advice service (tel. 010 808 515, 7-16).

The invitation advises booking an appointment for a gynaecological sample (appointment for a gynaecological screening sample). Gynaecological samples are taken at several Fimlab service locations. Through the appointment system, one can choose a suitable time and place for the sample collection.

In some wellbeing services counties, the screening sample is taken as part of the wellbeing services county's own activities, usually at a maternity clinic. The invitation includes either a pre-scheduled time for sample collection or instructions for booking an appointment. The invitation and appointment practices vary depending on the wellbeing services county's screening practices.

The screening sample should ideally be taken within about a month of the invitation. If this is not possible, a reminder invitation is sent. Flexible arrangements aim to ensure that as many eligible individuals as possible utilise the screening service. However, it should be noted that the screening invitation is valid only for the year of the invitation, and the sample must be taken by the end of March of the following year at the latest.

A trained sample collector takes the gynaecological screening sample. The screening sample is taken from the cervix using a silicone sampling brush. One screening sample is sufficient for both high-risk HPV testing and, if necessary, cytology. The screening sample is also recommended for women who have had a hysterectomy. In such cases, the sample is taken from the vagina. It is not recommended to take the sample during menstruation. The sample collection may involve some pain and bleeding.

Normal pregnancy is not an obstacle for sample collection up to the 35th week of pregnancy. If there is a known risk of preterm birth, it is advisable to discuss the sample collection in advance at the maternity clinic. After childbirth, the sample can be taken about 1-2 months later. If the sample collection is delayed beyond the end of March of the following year due to pregnancy and childbirth, the sample can no longer be taken and examined as a screening sample.

The screening examination is free of charge.

RESULTS

Fimlab sends the examination results to the individuals tested within an average of two months after sample collection. If the findings require further investigation, Fimlab automatically refers the individual to the necessary confirmatory tests at the follow-up unit designated by the wellbeing services county and informs the individual of this in the result letter.

Types of results:

- **Normal cytological finding** The most common result in screening of the healthy population is a negative result in the high-risk HPV test. The next screening invitation will be sent in 5 years if the individual is still within the screening age.

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- **Recommendation to see a doctor**

When a high-risk HPV infection is found in the HPV test, a liquid-based cytology sample (Pap test) is also examined from the same sample. Even if no malignant changes indicative of cervical cancer are found in the cytology sample, other changes may be detected, prompting the individual to see a doctor. The result letter will include the test result for the doctor's evaluation. If a microorganism (such as Trichomonas, Actinomyces, or herpes) is detected, medication may be necessary. Most microorganisms cannot be detected based on the Pap test alone, so if an infection is suspected, the individual should seek further examination and treatment from a gynaecologist or a doctor at a healthcare centre. For example, detecting a chlamydia infection always requires microbiological examinations.

- **Invitation for re-screening in 18–24 months**

The finding is HPV positivity without cellular changes or HPV positivity with HPV-related atypia in cells (ASC-US = atypical squamous cells of undetermined significance). HPV infections and mild cellular changes often resolve on their own. In such cases, the appropriate follow-up action is to repeat the HPV test and take a new cytology sample in 18-24 months. A follow-up invitation will be sent within the screening system.

- **Need for further investigation**

Sometimes the result indicates cellular changes that require confirmatory tests. Such Bethesda classification results include:

LSIL	= Squamous intraepithelial lesion (SIL), low-grade
ASC-H	= Atypical squamous cells, cannot exclude HSIL (ASC-H)
HSIL	= Squamous intraepithelial lesion (SIL), high-grade.

The recommended follow-up test is a colposcopy performed by a gynecologist, which involves examining the vagina and cervix and taking biopsy samples for tissue examination. Only after these results are available can the need for treatment or follow-up be assessed.

Even significant cellular changes may be caused by an HPV infection or another chronic inflammation. Further investigations are necessary to rule out the possibility of cervical cancer precursors and to treat them at an early stage if found.

The individual will receive a postal invitation for follow-up/confirmatory tests from the follow-up unit.

STATISTICS OF SCREENING ACTIVITIES

Fimlab provides a monthly summary of the screening tests performed to the Finnish Cancer Registry's Mass Screening Registry, which collects data on mass screening activities across Finland. This data is used for statistical research and to evaluate the effectiveness of mass screenings. The collection of data for the Finnish Cancer Registry is based on law.

Additionally, an annual summary of the screening tests is provided to the wellbeing services county that commissioned the service. Personal examination results are not included in the summary provided to municipalities.