

## **Patient information – Examination of the cervix**

Dear patient,

You are visiting our practice today for an examination because you have an abnormal cervical smear which indicates tissue alteration.

In the following, we would like to explain some facts about this issue. We hope that you will realize that there is not as much cause for concern as you might think.

### **Examination:**

During the examination today, the surface of the cervix will be examined using a magnifying microscope and a color test; this makes it possible to visualize the abnormal tissue indicated by the smear test. Then a tissue sample may be taken. This is usually not painful, so you don't need to be afraid of the examination; even in case of a pregnancy a tissue sample is possible without any cause for concern.

The tissue sample serves to confirm the diagnosis; this can clarify whether the present alterations need to be treated; perhaps you don't need any further treatment at all.

### **Treatment:**

If the tissue anomaly needs to be treated, this can be done as an outpatient procedure under short anaesthesia using a minimal invasive method (meaning you can go home shortly after).

Ideally, complete removal of the tissue alteration during the operation also ensures the removal of the virus, so that the probability of recurrence of the disease is generally very low (in the single-digit percentage range).

### **Viral infection:**

The underlying cause of this tissue alteration is the presence of a virus (the human papilloma virus - HPV). An HPV infection is very common and may affect all people who have sexual intercourse, both women and men (the risk of viral contact for men and women is about 80% in the span of a lifetime).

In the case of a first-time infection, the prospects for developing natural immunity and thus a spontaneous regression of tissue changes and also the elimination of the virus are very high. However, this process can take up to 2-3 years - an improvement in the smear findings should not be expected too early. For this reason, close interval follow ups are not recommended).

At present, it is not possible to determine the time of HPV contraction or whether it is a recent or chronic infection; it is also not possible for us to determine who was the carrier of this infection; in most cases, it is a chronic infection (earliest possible contraction can occur with the first sexual contact).

### **Tissue alteration:**

The HPV-induced tissue alterations on the surface of the cervix are called dysplasia.

They are divided into three degrees of severity: mild / moderate / severe dysplasia (severe dysplasia is what is called precancerous).

Unfortunately, the technical terms used for these changes are difficult to understand.

Two different terms are used for the same alteration, depending on whether a smear test was taken (by your gynaecologist) or a tissue sample was taken (at the dysplasia consultation).

Severity of the Tissue alteration (dysplasia)	Smear result	Tissue sample
Mild Dysplasia	Pap III D 1	CIN 1
Moderate Dysplasia	Pap III D 2	CIN 2
Severe Dysplasia	Pap IVa-p	CIN 3

CIN is the abbreviation for "cervical intraepithelial neoplasia".

On average, approx. 5-10 years pass between infection and the development of a tissue change of the severity of a precancerous stage (this means only the long-term presence of the virus in the tissue of the cervix causes the tissue change).

The development from a precancerous stage to cervical cancer also takes about 5 years and does not occur in all cases, but in up to 70 percent. The so-called precancerous lesions can also regress on their own.

**This means that through treatment we can prevent you from getting cancer of the cervix.**

#### **Risk factor smoking:**

Cigarette smoking, along with the viral infection, is a major risk factor for developing precancerous lesions in the mucous membranes of the vagina, cervix, vaginal entrance and anal canal.

The more you smoke, the greater the risk of disease.

#### **Vaccination:**

A vaccine is currently available that only provides preventive protection against new HPV infections (against the nine most important virus types - but not against all of them).

The vaccination for girls and boys is recommended before the first sexual intercourse, between the ages 9-14. This vaccination is therefore not a cure for an already existing infection or tissue change, but "only" protects against a new development.

After treatment, the tissue alteration is most likely completely removed and thus also all cells that carry virus; in case of the need of treatment, an administration of the vaccination can be considered in order to minimize the risk of a new infection.