

Cervix (cervix uteri)

The **cervix (cervix uteri)** is the caudal part of the uterus connecting the uterus to the vagina. It has a cylindrical shape. By the attachment of the vagina, the cervix is divided into *portio supravaginalis cervicis uteri* and *portio vaginalis cervicis uteri* (**ectocervix**). The folding of the endometrium creates the *plicae palmatae*.



Cervix of a woman after two vaginal births

Ectocervix

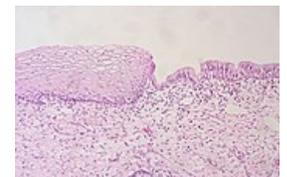
The ectocervix protrudes into the vagina and is therefore easily accessible for colposcopy. On its surface, we can distinguish the anterior and posterior lips, which border the **external gate of the uterus** (*ostium uteri externum*). It has the shape of transverse slits in girls, teenagers and women after childbirth, while in adult women who have not yet given birth, it has a dimple shape.

Structure of the wall of the cervix

1. **Mucous membrane** - of the uterine canal is called the *endocervix* and, unlike the mucous membrane of the uterine body, it does not shed during the menstrual phase. It is formed by a single-layered cylindrical mucus-forming epithelium arranged in cilia, around which there are crypts (glands). The part of the cervix that protrudes into the vagina is called the ectocervix. The ectocervix is smooth, covered by stratified squamous non-keratinizing epithelium.
2. **Muscle** - is arranged circularly.
3. **The perimetrium** - it covers only the supravaginal part of the cervix.

Cervical mucus

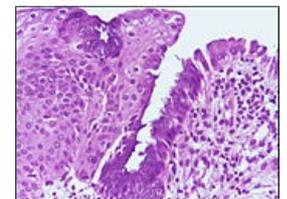
Cervical mucus it is made up of mucoid gel and cervical plasma. During the cycle, its character changes, which is important for sperm penetration. During the proliferative phase, under the influence of estrogens, the amount and elasticity of mucus increases. During the period of ovulation, there is the most mucus, it has a low viscosity, alkalic pH, significant elasticity (up to 10-15 cm) and contains the fewest leukocytes. After drying on the slide, we observe significant arborization. During this period, the outer gate of the uterus is widened, round, and abundant mucus flows from it.



Normal squamocolumnar junction

Squamocolumnar junction and transformation zone

The transition between the epithelia of the endocervix and the ectocervix is called the **zone of epithelial transformation**, the junctional zone or the **squamocolumnar junction** (SCJ). In prepubertal girls, the SKJ is located inside the external gate. Under the influence of hormones and the acidity of the vaginal environment, the mucous membrane of the endocervix everts and the subcylindrical cells go through the process of metaplasia - transformation into squamous epithelium. This creates a new border (**active SCJ**) between cylindrical and squamous epithelium. The original SCJ moves outwards. The area between the original and active SCJ is called the **transformation zone**. Metaplastic cells of the transformation zone are more susceptible to oncogenic changes. In perimenopausal women, the transformation zone shifts endocervically, making it unobservable. The riskiest pre-cancers arise in this terrain.



Metaplasia of columnar epithelium

Glands that were located under the original columnar epithelium can be covered by metaplastic epithelium and form retention mucinous cysts, **ovulae Nabothi**. We do not consider these formations to be pathological. They arise as a result of dynamic changes taking place on the cervix.

Cervix during pregnancy and childbirth

Incompetence (insufficiency) may occur during pregnancy. This condition is solved by so-called cerclage in the second or the beginning of the third trimester of pregnancy. This is the loading of a circular stitch at the level of the inner goal.

During the first stage of labor, primiparous women experience shortening of the cervix, until its subsequent disappearance (effacement). After that, the cervix begins to open up to 8 cm. A so-called border is created when the gate completely disappears (**10 cm**). Second stage of labor begins with the disappearance of the goal. time of birth In multipar, the neck is shortened simultaneously with the opening of the goal.

Links

Related articles

- Uterus
- Ectropium (gynecology)
- Tumors of the cervix
- Birth
- Cervical precancers
- Vagina

References

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