

# Gynecological inflammations

**Inflammation of a woman's genitals** is the most common reason for visiting a gynecological office<sup>[1]</sup>. In most cases, it is an infectious disease, often sexually transmitted. Anatomically, according to localization, it is divided into<sup>[2]</sup>:

- **Inflammation of external organs:**
  - *vulvitis*,
  - *bartholinitis*.
- **Inflammation of internal organs:**
  - *colpitis* ( *vaginitis* ),
  - *cervicitis* ,
  - inflammations of the uterus: *endometritis* , *myometritis* , *perimetritis* ,
  - *adnexitis* ,
  - *deep pelvic inflammation* ( *pelvic inflammatory disease* , PID), i.e. inflammation of the uterine appendages, ligaments and pelvic peritoneum.

Several floors can be affected at the same time, e.g. simultaneously the vagina and external genitalia irritated by vaginal discharge, such as *vulvovaginitis* .

## Etiological agent

*Bacteria* (e.g. *bacterial vaginosis* , *chlamydial infections* , etc.), viruses (e.g. *HPV - condylomata accuminata* , *herpes genitalis*, etc.), fungi (e.g. *vulvovaginal candidiasis* ) and parasites (e.g. *trichomoniasis* ) apply .

The spread of infection can take place *per continuitatem* , *hematogenous* or *lymphogenous* , *ascending* or *descending* . The most common spread is *the intracanalicular rise of microorganisms* through the genitals<sup>[1]</sup>.

## Symptoms

Symptoms include: *fluor* (discharge), *dyspareunia* (painful intercourse), *dysmenorrhoea* (painful menses), *pelvalgia* (pain in the lower abdomen), *sacralgia* (pain in the lower back). As a complication of these infections, adhesions in the abdominal cavity, infertility causing even ectopic pregnancy or sterility can occur.

Other diseases can have similar symptoms. For example, in addition to vaginitis and endocervicitis, the discharge is also typical of an **endocervical polyp** or **carcinoma** .

## Diagnostics

The basis is **anamnesis, a physical examination** , including a vaginal examination with a smear of vaginal secretions for **microscopic examination** , **an amine test** and **pH determination** . Microbiological culture is only an additional examination, it is burdened by time latency, and the vast majority of inflammations can be diagnosed even without it.<sup>[2]</sup>In the case of inflammation of the pelvic organs, in addition to the physical examination, **ultrasonography** is also an important modality<sup>[2]</sup>.

### Microscopic examination

The basic and most telling microscopic examination is **native microscopy** at 400x magnification<sup>[1][2]</sup>, possibly supplemented by microscopy with a few drops of 10% potassium hydroxide ( *amine test* - see below, but also better visibility of yeast). Six classes of *microbial vaginal image* (MOP I-VI) stained according to Gram are already considered obsolete<sup>[1]</sup>. On the other hand, native microscopy is very time-consuming and requires a great deal of experience with interpretation, so it is usually performed less often than the examination of stained preparations according to Gram or Giemsa<sup>[2]</sup>.

*In the native preparation, the presence and amount of leukocytes, epithelia and clue cells* , microorganisms are evaluated . The movement of some microorganisms (e.g. trichomonads) can be evaluated in phase contrast<sup>[1]</sup>.

### Determination of pH of vaginal secretion

#### Amine test

In the alkaline environment created by the potassium hydroxide solution, biogenic amines (putrescine, cadaverine and tyramine<sup>[3]</sup>). are released during bacterial vaginosis . These are manifested by an unmistakable fishy smell.

## Treatment

Therapy is causal according to the identified etiopathogenetic agent. Probiotic cultures of lactobacilli are not very important, as they contain other strains of lactobacilli than are natural for the vaginal environment<sup>[2]</sup>.

There are over-the-counter antifungal preparations for the treatment of vaginal candidiasis. Manufacturers sometimes add lactic acid to them, which acidifies vaginal secretions and creates an unsuitable environment for the development of bacterial vaginosis<sup>[2]</sup>.

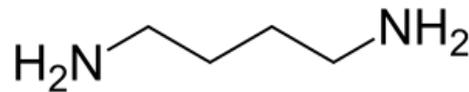
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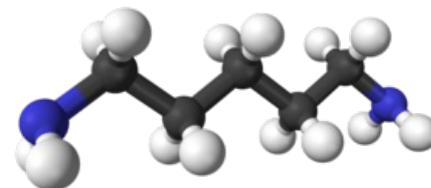
- Vulvitis
- Vulvovaginitis
  - Trichomonad vulvovaginitis
  - Bacterial vaginosis
  - Vulvovaginitis candidomyceta
- Deeo pelvic inflammatory disease
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### References

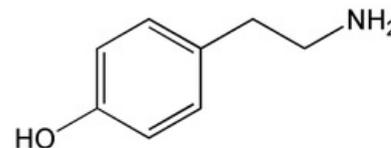
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the putrescine molecule



the cadaverine molecule



the tyramine molecule