SALPINGITIS

An infection and inflammation in the fallopian tubes.

⚠️ Risk factor ♂ Female

About Salpingitis

Salpingitis is an acute inflammation of the fallopian tubes, most commonly caused by sexually transmitted micro-organisms in adolescent and adult women (Pic. 1). The bacteria most associated with salpingitis are N. gonorrhoeae, Chlamydia trachomatis, Mycoplasma, Staphylococcus and Streptococcus. Salpingitis occurs in an estimated 15% of reproductive-age women, and 2.5% of all women become infertile as a result of salpingitis by age 35. It is very uncommon in premenarchal or sexually inactive girls.

The infection usually has its origin in the vagina, and ascends to the fallopian tube from there. Because the infection can spread via the lymph vessels, infection in one fallopian tube usually leads to infection of the other.

There are two types of salpingitis: acute salpingitis and chronic salpingitis.

In **acute salpingitis**, the fallopian tubes are extensively swollen. The main symptom of acute salpingitis is pelvic pain. The cause of acute salpingitis is vaginal infection. Other causes are for example a surgery or a procedure (such as insertion of an IUD). There is a leakage of fluid can cause tubal walls sticking to each other or to other organs. Acute salpingitis poses a risk rupturing the wall fallopian tube and subsequent infection of the abdominal cavity. Acute salpingitis is the most important component of the pelvic inflammatory disease (PID).

After acute salpingitis may follow **chronic salpingitis**. Chronic salpingitis is usually milder, longer and is not as pronounced symptoms.

Salpingitis may be diagnosed by pelvic examination, blood tests, and/or a vaginal or cervical swab. The most commonly method of treatment are used antibiotics (such as metronidazole). More severe infections are used intravenously administered antibiotics (such as cefoxitin). A salpingectomy (the surgical removal of a fallopian tube) may be necessary to correct complications (such as drain abscesses) if the condition resists to antibiotic therapy.

**Symptoms:**
- fever
- pain and tenderness in the pelvis
- vaginal discharge
- bleeding after intercourse
- painful intercourse
- frequent urination
- loss of appetite
- absence of menstruation
- vomiting

**Associated diseases:**
- endometritis
- tuboovarian abscess
- pelvic peritonitis
- oophoritis (an inflammation of the ovaries)
- perihepatitis (an inflammation of the serous or peritoneal coating of the live)
Complications:

Infertility and an increased chance of ectopic pregnancy are the most important long term complications of salpingitis, because the eggs released in ovulation can't get contact with the sperm. The more times one has the infection, the greater the risk of infertility. The other complications of salpingitis are for example an abscess on the ovary, infection of ovaries and uterus or infection of sex partners.

Risk factors:

Risk factors include surgical procedures which break the cervical barrier, such as:

- endometrial biopsy
- curettage
- hysteroscopy

Another risk is factors that alter the microenvironment in the vagina and cervix, allowing infecting organisms to proliferate and eventually ascend to the fallopian tube:

- antibiotic treatment
- ovulation
- menstruation
- sexually transmitted disease (STD)

Finally, sexual intercourse may facilitate the spread of disease from vagina to fallopian tube. Coital risk factors are:

- uterine contractions
- sperm, carrying organisms upwards

Prevention:

The risk of contracting salpingitis can be reduced by the following:

- seeking medical attention
- using barrier methods such as condoms
- abstinence
- sexual monogamy that restricts sexual activities to two 'virgins' or partners remaining sexually exclusive with each other and having no outside sex partners

How it can affect fertility

Infertility can have multiple possible causes and may not be recognized for years after a Chlamydia or Mycoplasma infection has caused tubal damage, as the affected woman may not have attempted to become pregnant until years later. Tubal factor infertility impedes the descent of a fertilized or unfertilized ovum into the uterus through the Fallopian tubes and prevents a normal pregnancy and full term birth.

As could be seen from (Pic. 2), that tubal infertility is directly related to a number of factors present during the initial episode of salpingitis, which include (besides the number of episodes) the initial severity of tubal inflammation, the organisms responsible, and the occurrence of a subsequent ectopic pregnancy. The rate of infertility is approximately 15% after a first episode of salpingitis and increases to 50% after a third episode.

The best predictor of subsequent infertility is the degree of tubal inflammation observed through the laparoscopy during the acute phase. Women with a pelvic abscess have had the highest (85% to 90%) rate of subsequent infertility.

Prognosis

After each attack of recurrent infection dramatically reduces the chances of pregnancy significantly increases the risk of ectopic pregnancy.
Of course early recognition and treatment of salpingitis is essential in preventing the major long-term problem, involuntary infertility. Success rates with in vitro fertilization for salpingitis in women are usually very good.

The introduction of antibiotics into clinical practice led to improvement in the prognosis for acute salpingitis, and mortality was nearly eliminated.

---

**Pic**
Factors influencing the frequency of tubal occlusion after salpingitis.

<table>
<thead>
<tr>
<th>Clinical Findings</th>
<th>Tubal Occlusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of acute inflammation at laparoscopy</td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>6%</td>
</tr>
<tr>
<td>Moderate</td>
<td>13%</td>
</tr>
<tr>
<td>Severe</td>
<td>30%</td>
</tr>
<tr>
<td>Number of episodes of salpingitis</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>11%</td>
</tr>
<tr>
<td>Two</td>
<td>23%</td>
</tr>
<tr>
<td>Three or more</td>
<td>54%</td>
</tr>
<tr>
<td>Type of salpingitis</td>
<td></td>
</tr>
<tr>
<td>Gonococcal</td>
<td>9%</td>
</tr>
<tr>
<td>Nongonococcal</td>
<td>16%</td>
</tr>
</tbody>
</table>

---

**Sources**

"Pelvic inflammatory disease (https://en.wikipedia.org/wiki/Pelvic_inflammatory_disease)" — sourced from Wikipedia licensed under CC BY-SA 3.0

"Salpingectomy (https://en.wikipedia.org/wiki/Salpingectomy)" — sourced from Wikipedia licensed under CC BY-SA 3.0

"Salpingitis (https://en.wikipedia.org/wiki/Salpingitis)" — sourced from Wikipedia licensed under CC BY-SA 3.0

"Infection and Infertility (http://www.intechopen.com/books/genital-infections-and-infertility/infection-and-infertility)" — by Dalal licensed under CC BY 3.0


"Treatment of Acute Pelvic Inflammatory Disease (https://www.hindawi.com/journals/fidog/2011/561909/)" — by Sweet licensed under CC BY 3.0

"Perihepatitis (https://en.wikipedia.org/wiki/Perihepatitis)" — sourced from Wikipedia licensed under CC BY-SA 3.0

"Tubal factor infertility (https://en.wikipedia.org/wiki/Tubal_factor_infertility)" — sourced from Wikipedia licensed under CC BY-SA 3.0