**Salpingitis**

Salpingitis is an infection and inflammation in the fallopian tubes. It is often used synonymously with pelvic inflammatory disease (PID), although PID lacks an accurate definition and can refer to several diseases of the female upper genital tract, such as endometritis, oophoritis, myometritis, parametritis and infection in the pelvic peritoneum. In contrast, salpingitis only refers to infection and inflammation in the fallopian tubes.

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

Symptoms

The symptoms usually appear after a menstrual period. The most common are:

* Abnormal smell and colour of vaginal discharge
* Pain during ovulation
* Pain during sexual intercourse
* Pain coming and going during periods
* Abdominal pain
* Lower back pain
* Fever
* Nausea
* Vomiting
* Bloating

Causes and pathophysiology

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.

Risk factors

It's been theorized that retrograde menstrual flow and the cervix opening during menstruation allows the infection to reach the fallopian tubes. Other 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.

Bacterial species

The bacteria most associated with salpingitis are:

* N. gonorrhoeae
* Chlamydia trachomatis
* Mycoplasma
* Staphylococcus
* Streptococcus

However, salpingitis usually is polymicrobal, involving many kinds of organisms. Other examples of organisms involved are:

* Ureaplasma urealyticum
* anaerobic and aerobic bacteria.

Epidemiology

Over one million cases of acute salpingitis are reported every year in the U.S., but the number of incidents is probably larger, due to incomplete and untimely reporting methods and that many cases are reported first when the illness has gone so far that it has developed chronic complications. For women aged 16–25, salpingitis is the most common serious infection. It affects approximately 11% of the female of reproductive age.[1] Salpingitis has a higher incidence among members of lower socioeconomic classes. However, this is thought of being an effect of earlier sex debut, multiple partners and decreased ability to receive proper health care rather than any independent risk factor for salpingitis. As an effect of an increased risk due to multiple partners, the prevalence of salpingitis is highest for people aged 15–24 years. Decreased awareness of symptoms and less will to use contraceptives are also common in this group, raising the occurrence of salpingitis.

Complications

For the affected, 20% need hospitalization. Regarding patients aged 15–44 years, 0.29 per 100,000 dies from salpingitis.

However, salpingitis can also lead to infertility, because the eggs released in ovulation can't get contact with the sperm. Approximately 75,000-225,000 cases of infertility in the U.S. are caused by salpingitis. The more times one has the infection, the greater the risk of infertility. With one episode of salpingitis, the risk of infertility is 8-17%. With 3 episodes of salpingitis, the risk is 40-60%, although the exact risk depends on the severity of each episode.

In addition, damaged oviducts increase the risk of ectopic pregnancy. Thus, if one has had salpingitis, the risk of a pregnancy to become ectopic is 7 to 10-fold as large. Half of ectopic pregnancies are due to a salpingitis infection.

Other complications are:

* Infection of ovaries and uterus
* Infection of sex partners
* An abscess on the ovary

Diagnosis

Salpingitis may be diagnosed by pelvic examination, blood tests, and/or a vaginal or cervical swab.

Treatment

Salpingitis is most commonly treated with antibiotics.

 **More about this disease**

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/salpingitis>

Salpingitis is inflammation of the fallopian tubes. Almost all cases are caused by bacterial infection, including sexually transmitted diseases such as gonorrhoea and chlamydia

Salpingitis is one of the most common causes of female infertility.

The symptoms of salpingitis may include:

* abnormal vaginal discharge, such as unusual colour or smell
* spotting between periods
* dysmenorrhoea (painful periods)
* pain during ovulation
* uncomfortable or painful sexual intercourse
* fever
* abdominal pain on both sides
* lower back pain
* frequent urination
* nausea and vomiting
* the symptoms usually appear after the menstrual period.

**Types of salpingitis**

Salpingitis is usually categorised as either acute or chronic. In acute salpingitis, the fallopian tubes become red and swollen, and secrete extra fluid so that the inner walls of the tubes often stick together. The tubes may also stick to nearby structures such as the intestines. Sometimes, a fallopian tube may fill and bloat with pus. In rare cases, the tube ruptures and causes a dangerous infection of the abdominal cavity (peritonitis). Chronic salpingitis usually follows an acute attack. The infection is milder, longer lasting and may not produce many noticeable symptoms.

**Causes of salpingitis**

In nine out of 10 cases of salpingitis, bacteria are the cause. Some of the most common bacteria responsible for salpingitis include:

* chlamydia
* gonococcus (which causes gonorrhoea)
* mycoplasma
* staphylococcus
* streptococcus.

The bacteria must gain access to the woman's reproductive system for infection to take place. The bacteria can be introduced in a number of ways, including:

* sexual intercourse
* insertion of an IUD (intra-uterine device)
* miscarriage
* abortion
* childbirth
* appendicitis.

**Lifestyle risk factors of salpingitis**

Lifestyle factors that significantly increase a woman's risk of contracting salpingitis include:

* engaging in sexual intercourse without a condom
* prior infection with a sexually transmitted disease.

**Complications of salpingitis**

Without treatment, salpingitis can cause a range of complications, including:

* Further infection - the infection may spread to nearby structures, such as the ovaries or uterus.
* Infection of sex partners - the woman's partner or partners may contract the bacteria and become infected too.
* Tubo-ovarian abscess - about 15 per cent of women with salpingitis develop an abscess, which requires hospitalisation.
* Ectopic pregnancy - a blocked fallopian tube prevents the fertilised egg from entering the uterus. The embryo then starts growing inside the confined space of the fallopian tube. The risk of ectopic pregnancy for a woman with prior salpingitis or other form of pelvic inflammatory disease (PID) is around one in 20.
* Infertility - the fallopian tube may become deformed or scarred to such an extent that the egg and sperm are unable to meet. After one bout of salpingitis or other PID, a woman's risk of infertility is about 15 per cent. This rises to 50 per cent after three bouts.

**Diagnosis of salpingitis**

Diagnosing salpingitis involves a number of tests, including:

* general examination - to check for localised tenderness and enlarged lymph glands
* pelvic examination - to check for tenderness and discharge
* blood tests - to check the white blood cell count and other factors that indicate infection
* mucus swab - a smear is taken to be cultured and examined in a laboratory so that the type of bacteria can be identified
* laparoscopy - in some cases, the fallopian tubes may need to be viewed by a slender instrument inserted through abdominal incisions.

**Treatment for salpingitis**

Treatment depends on the severity of the condition, but may include:

* antibiotics - to kill the infection, which is successful in around 85 per cent of cases
* hospitalisation - including intravenous administration of antibiotics
* surgery - if the condition resists drug treatment.