

Pelvic Inflammatory Disease

Pelvic inflammatory disease (PID) is an infection that affects the female reproductive organs. It is a common illness. PID is diagnosed in more than 1 million women each year in the United States.

PID can be treated with success if it is caught early. If not treated promptly, the infection may cause permanent, long-term problems. Many cases of PID are caused by **sexually transmitted diseases (STDs)**. Protecting yourself from STDs may reduce your risk of getting PID.

This pamphlet explains

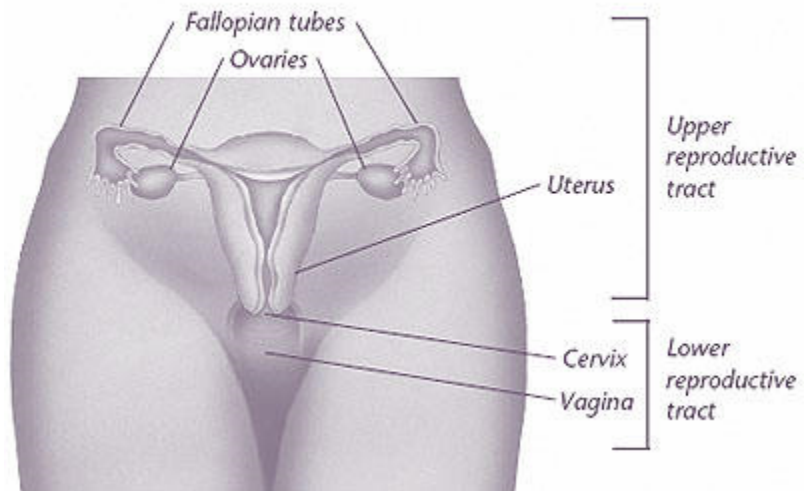
- causes of PID
- long-term effects of PID
- risk factors
- symptoms, diagnosis, and treatment prevention

Causes of PID

PID occurs when bacteria move from the **vagina** and **cervix** upward into the **uterus**, **ovaries**, or **fallopian tubes**. The bacteria can lead to an **abscess** in a fallopian tube or ovary. Long-term problems can occur if PID is not treated promptly.

The two STDs that are the main cause of PID are **gonorrhea** and **chlamydia**. Gonorrhea and chlamydia may cause vague symptoms or even no symptoms in a woman. After a woman is infected with gonorrhea or chlamydia and if she does not receive treatment, it can take anywhere from a few days to a few weeks before she develops PID. PID also can be caused by infections that are not sexually transmitted, such as **bacterial vaginosis**.

The Female Reproductive System



Long-term Effects of PID

PID can lead to serious, long-term problems:

- **Infertility**—One in ten women with PID becomes infertile. PID can cause scarring of the fallopian tubes. This scarring can block the tubes and prevent an egg from being fertilized.
- **Ectopic pregnancy**—Scarring from PID also can prevent a fertilized egg from moving into the uterus. Instead, it can begin to grow in the fallopian tube. The tube may rupture (break) and cause life-threatening bleeding into the abdomen and pelvis. Emergency surgery may be needed if the ectopic pregnancy is not diagnosed early.
- **Chronic pelvic pain**—PID may lead to long-lasting pelvic pain.

Risk Factors

PID can occur at any age in women who are sexually active. It is most common among young women. Those younger than age 25 years are more likely to develop PID. Women with the following risk factors also are more likely to have PID:

- Infection with an STD, most often gonorrhea or chlamydia
- Multiple sex partners—the more partners, the greater the risk
- A sex partner who has sex with others
- Past PID

Some research suggests that women who douche frequently are at increased risk of PID. Douching may make it easier for the bacteria that cause PID to grow. It also may push the bacteria upward to the uterus and fallopian tubes from the vagina. For this and other reasons, douching is not recommended.

Symptoms

Some women with PID have only mild symptoms or have no symptoms at all. Because the symptoms can be vague, many cases are not recognized by women or their health care providers. Listed are the most common signs and symptoms of PID:

- Abnormal vaginal discharge
- Pain in the lower abdomen (often a mild ache)
- Pain in the upper right abdomen
- Abnormal menstrual bleeding
- Fever and chills
- Painful urination
- Nausea and vomiting
- Painful sexual intercourse

Having one of these signs or symptoms does not mean that you have PID. It could be a sign of another serious problem, such as appendicitis or ectopic pregnancy. You should contact your health care provider if you have any of these signs or symptoms.

Diagnosis

To learn if you have PID, your health care provider will start by asking about your medical history, including your sexual habits, birth control method, and symptoms. If you have PID symptoms, you will need to have a *pelvic exam*. This exam can show if your reproductive organs are tender. A sample of fluid from your cervix will be taken and tested for gonorrhea and chlamydia. Blood tests may be done.

Your health care provider may order other tests or procedures. They can include *ultrasonography*, *endometrial biopsy*, and in some cases *laparoscopy*.

PID can be hard to diagnose. One reason is that it is not easy to examine the affected organs. Another is that the symptoms may resemble those of other problems.

Early treatment of PID has the most success. In some cases, you may be treated even if PID is suspected before the diagnosis is confirmed.

Treatment

PID can be treated. However, treatment of PID cannot reverse the scarring caused by the infection. The longer the infection goes untreated, the greater the risk for long-term problems, such as infertility.

PID is treated first with *antibiotics*. In most cases, antibiotics alone can get rid of the infection. Two or more antibiotics may be prescribed. They may need to be taken by mouth or by injection. Your health care provider may schedule a follow-up visit 2–3 days after treatment to check your progress. Sometimes the symptoms go away before the infection is cured. If they do, you still should take all of the medicine for as long as it is prescribed.

Some women may need to be treated in a hospital. Hospitalization may be recommended for women who

- do not have a clear diagnosis
- are pregnant
- must take antibiotics intravenously
- are severely ill
- have nausea and vomiting
- have a high fever
- have an abscess in a fallopian tube or ovary

In certain situations, such as when an abscess is found, surgery may be needed.

A woman's sex partners must be treated. Women with PID may have partners who have gonorrhea or chlamydia. A person can have these STDs even if there are no signs of illness.

Prevention

To help prevent PID, take the following steps to avoid STD infection:

- Use condoms every time you have sex to prevent STDs. Use condoms even if you use other methods of birth control.
- Have sex only with a partner who does not have an STD and who only has sex with you.
- Limit your number of sex partners. If you or your partner has had previous partners, your risk of getting an STD is increased.

Tests are available that can tell you whether you have gonorrhea or chlamydia. Your health care provider can perform these tests with a urine sample. Yearly tests for chlamydia and gonorrhea are recommended for all sexually active women aged 25 years or younger and for older women with risk factors. All pregnant women are tested for chlamydia during an early prenatal visit; pregnant women with risk factors are tested for gonorrhea as well. Women at high risk for chlamydia and gonorrhea may receive additional tests later in pregnancy.

If you have any genital symptoms, you may have an STD. You should contact your health care provider if you have any of the following signs or symptoms:

- An unusual sore
- Discharge with odor
- Bleeding between menstrual periods
- Burning with urination

Early treatment of an STD can prevent later problems

Finally...

Take steps to avoid an STD infection, such as using a condom each time you have sex. STDs can lead to PID, and PID can cause long-term problems. It can be treated with success if it is caught early. If you have any genital symptoms, see your health care provider. If you are treated, finish all medications even if you feel better quickly, and be sure to have all of the scheduled check-ups. Follow your health care provider's advice closely to avoid re-infection.

Glossary

Abscess: A collection of pus located in a tissue or organ.

Antibiotics: Drugs that treat infections.

Bacterial Vaginosis: A type of vaginal infection caused by the overgrowth of a number of organisms that are normally found in the vagina.

Cervix: The opening of the uterus at the top of the vagina.

Chlamydia: A sexually transmitted disease caused by bacteria that can lead to pelvic inflammatory disease and infertility.

Chronic Pelvic Pain: Persistent pain in the pelvic region that has lasted for at least 6 months.

Ectopic Pregnancy: A pregnancy in which the fertilized egg begins to grow in a place other than inside the uterus, usually in one of the fallopian tubes.

Endometrial Biopsy: A test in which a small amount of the tissue lining the uterus is removed and examined under a microscope.

Fallopian Tubes: Tubes through which an egg travels from the ovary to the uterus.

Gonorrhea: A sexually transmitted disease that may lead to pelvic inflammatory disease, infertility, and arthritis.

Infertility: A condition in which a couple has been unable to get pregnant after 12 months without the use of any form of birth control.

Laparoscopy: A surgical procedure in which a slender, light-transmitting instrument, the laparoscope, is used to view the pelvic organs or perform surgery.

Ovaries: Two glands, located on either side of the uterus, that contain the eggs released at ovulation and that produce hormones.

Pelvic Exam: A manual examination of a woman's reproductive organs.

Sexually Transmitted Diseases (STDs): Diseases that are spread by sexual contact.

Ultrasonography: A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

Vagina: A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

