

PATIENT EDUCATION



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

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 infections (STIs)**. Protecting yourself from STIs 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 STIs 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 (BV)**.

Long-Term Effects of PID

PID can lead to serious, long-term problems:

- **Infertility**—One in 10 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 STI, 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

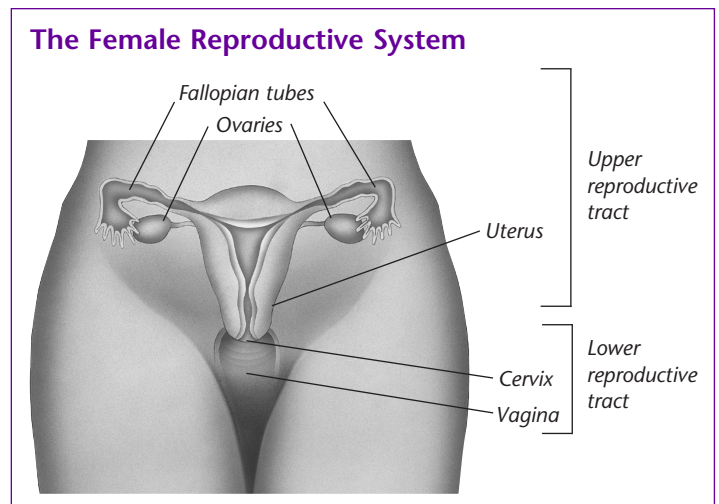
Some women with PID have only mild symptoms or have no symptoms at all. Because the symptoms can be vague, many cases are not recognized by women or their health care providers. Listed are the most common signs and symptoms of PID:

- 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 **gynecologist** or other member of your health care team if you have any of these signs or symptoms.

Diagnosis

To learn if you have PID, your gynecologist or other health care professional 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 gynecologist or other health care professional 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. But 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 can be given as pills, through a tube inserted in a vein (an **intravenous [IV] line**), or by injection. Your gynecologist or other health care professional 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. A hospital stay may be recommended for women who

- do not have a clear diagnosis
- are pregnant
- must take IV antibiotics
- 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 STIs even if there are no signs of illness.

Prevention

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

- Use condoms every time you have sex to prevent STIs. Use condoms even if you use other methods of birth control.
- Have sex only with a partner who does not have an STI 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 STI is increased.

Tests are available that can tell you whether you have gonorrhea or chlamydia. Your gynecologist or other health care professional 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 STI. You should contact your gynecologist or other member of your health care team if you have any of the following signs or symptoms:

- Discharge with odor
- Bleeding between *menstrual periods*
- Burning with urination

Early treatment of an STI can prevent later problems.

Finally...

Take steps to avoid STIs, such as using a condom each time you have sex. STIs 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 gynecologist. 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 gynecologist's or other health care professional's advice closely to avoid reinfection.

Glossary

Abscess: A collection of pus found in tissue or an organ.

Antibiotics: Drugs that treat certain types of infections.

Bacteria: One-celled organisms that can cause infections in the human body.

Bacterial Vaginosis (BV): A condition in which the normal balance of bacteria is changed by an overgrowth of other bacteria. Symptoms may include vaginal discharge, fishy odor, pain, itching, and burning.

Birth Control: Devices or medications used to prevent pregnancy.

Cervix: The lower, narrow end of the uterus at the top of the vagina.

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

Chronic Pelvic Pain: Pain in the pelvic region that lasts for more than 6 months.

Ectopic Pregnancy: A pregnancy in a place other than the uterus, usually in one of the fallopian tubes.

Egg: The female reproductive cell made in and released from the ovaries. Also called the ovum.

Endometrial Biopsy: A procedure 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 infection that can lead to pelvic inflammatory disease, infertility, and arthritis.

Gynecologist: A doctor with special training and education in women's health.

Infertility: The inability to get pregnant after 1 year of having regular sexual intercourse without the use of birth control.

Intravenous (IV) Line: A tube inserted into a vein and used to deliver medication or fluids.

Laparoscopy: A surgical procedure in which a thin, lighted telescope called a laparoscope is inserted through a small incision (cut) in the abdomen. The laparoscope is used to view the pelvic organs. Other instruments can be used with it to perform surgery.

Menstrual Periods: The monthly shedding of blood and tissue from the uterus.

Ovaries: Organs in women that contain the eggs necessary to get pregnant and make important hormones, such as estrogen, progesterone, and testosterone.

Pelvic Exam: A physical examination of a woman's pelvic organs.

Pelvic Inflammatory Disease (PID): An infection of the upper female genital tract.

Sexual Intercourse: The act of the penis of the male entering the vagina of the female. Also called “having sex” or “making love.”

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Ultrasonography: A test in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasonography can be used to check the fetus.

Uterus: A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus.

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

This information was designed as an educational aid to patients and sets forth current information and opinions related to women’s health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician’s independent professional judgment. Please check for updates at www.acog.org to ensure accuracy.

Copyright August 2019 by the American College of Obstetricians and Gynecologists. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, posted on the internet, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher.

This is EP077 in ACOG’s Patient Education Pamphlet Series.

ISSN 1074-8601

American College of Obstetricians and Gynecologists
409 12th Street, SW
PO Box 96920
Washington, DC 20090-6920