

STD/STI INFORMATIONAL FACT SHEET

PELVIC INFLAMMATORY DISEASE (PID) (pel-vik in-**flam**-uh-tohr-ee di-zeez)

What is PID?

Pelvic inflammatory disease (PID) is a serious infection of the female reproductive organs including the ovaries, uterus (womb), and fallopian tubes (tubes that carry eggs from the ovaries to the uterus). In most cases, PID is a result of complications from sexually transmitted infections such as Chlamydia and gonorrhea.

How common is PID?

It is estimated that more than one million women annually experience an acute episode of PID with females in the 15 to 25 year age group having the highest incidence. Females under the age 25 are more likely to develop PID than women older than 25 because the cervix of teenage girls and young women is not fully matured. This increases susceptibility to the STDs linked to PID. For many reasons, it is believed that millions of PID cases are undiagnosed. In the U.S., PID is the leading cause of infertility in women. Annually, PID results in more than 100,000 cases of infertility, a large number of ectopic pregnancies, and more than 150 deaths.

How is PID transmitted?

PID occurs when bacteria move upward from a woman's vagina or cervix (opening to the uterus) into the reproductive organs. It can take from several days up to several months after infection for a person to develop PID. Many organisms may cause the disease, but most cases are related to sexually transmitted bacteria of Chlamydia and gonorrhea. When a woman experiences one episode of PID, she is at increased risk for other episodes because the reproductive organs may be damaged at the first and successive bouts of infection.

A woman is at more risk of developing PID if she has more than one sexual partner and if her partner has had more than one sex partner. Women who douche once or twice a month are more likely to have PID than those who douche less than once a month. Douching changes the balance of organisms living in the vagina in harmful ways. Douching forces bacteria from the vagina upward and eases symptoms of an infection; thus, delaying effective treatment. In a similar vein, women who insert an intrauterine device (IUD) are at slightly higher risk of PID (near the time of insertion) compared with women who use other contraceptives or no contraceptives.

What are the signs and symptoms of PID?

Symptoms of PID may vary from none to severe. If PID is caused by Chlamydia, a woman may experience mild symptoms or no symptoms, while serious damage is developing in the reproductive organs. The vague symptoms may mean that PID goes unrecognized and undiagnosed by women and their health care providers a majority of the time. Women who have symptoms of PID most commonly have dull abdominal pain, an unusual vaginal discharge that may have a foul odor, spotting and pain between menstrual periods, low back pain, pain during intercourse, burning during urination, fever and chills, nausea, and vomiting.

What are complications of PID?

Without treatment, PID causes permanent damage to the female reproductive organs. Unknowingly, infection in the fallopian tubes turns normal tissue to scar tissue that can block (or interrupt) normal movement of the eggs from the ovaries to the uterus. If the fallopian tubes are damaged and blocked by abnormal tissue, the sperm cannot fertilize an egg and a woman becomes infertile. About one in eight women with PID become infertile. If a woman has multiple episodes of PID, she has greater chances of becoming infertile. A woman also may experience a life-threatening situation if a fertilized egg is not able to move through the fallopian tube (causing an ectopic pregnancy). As the fertilized egg grows, an ectopic pregnancy can rupture the tube causing severe pain, internal bleeding, and possibly death. Prompt and correct treatment can help prevent complications of PID.

How does PID affect a pregnant woman and her baby?

Women with histories of PID may have difficulty getting pregnant. Episodes of PID prior to pregnancy place women at increased risk for ectopic pregnancy where the fertilized egg develops inside the fallopian tubes. Ectopic pregnancies are serious and can lead to severe complications requiring immediate surgery. Pregnant women suspected of having PID should be hospitalized so they can be treated with intravenous antibiotics to reduce risks of serious illness, loss of pregnancy, or premature delivery.

How is PID diagnosed?

There are no specific tests for PID and this makes it difficult to diagnose the disease because symptoms are often mild or none at all. Therefore, many episodes of PID are undetected. Diagnosis, then, is based on results of clinical examinations. A health care provider may check for fever, pain location (lower abdomen, fallopian tubes and ovaries, or cervix), abnormal vaginal or cervical discharge, and evidence of infection related to Chlamydia or gonorrhea. A pelvic ultrasound is helpful in diagnosing PID and sometimes a laparoscopy procedure may be used to confirm diagnosis. Treatment is necessary if these results indicate PID.

What is the treatment for PID?

Antibiotics, bed rest, and sexual abstinence are a critical part of treating PID. There is a broad range of antibiotics that can be used to cure PID and a health care provider can determine and prescribe the best course of therapy. The antibiotics may be injected or taken by mouth. Antibiotics, however, do not reverse any damage that may already have occurred to reproductive organs. If a woman experiences pelvic pain and other suspected symptoms of PID, it is important to talk with a health care provider immediately as prompt medical treatment can prevent severe damage to the reproductive organs. The longer the delay in treatment, the more likely she is to become infertile or to have a future ectopic pregnancy. Following initial treatment, symptoms for PID may go away before the infection is cured. Even though symptoms go away, the patient should continue using all the prescribed medicine. This will help prevent return of the infection. Health care providers should re-evaluate patients treated for PID within two to three days after beginning treatment to know that the antibiotics are working. Additionally, a woman's sexual partner(s) should be treated to decrease the risk of re-infection, even if the partner has no symptoms. Even though sexual partners have no symptoms, they still may be infected.

Hospitalization is recommended if a woman (1) is severely ill (e.g., high fever, nausea, and vomiting); (2) is pregnant; (3) does not respond to or cannot take oral medication and needs intravenous antibiotics; or (4) has an abscess in the fallopian tube or ovary (tubo-ovarian abscess). If symptoms continue or if an abscess does not go away, surgery may be needed. Complications of PID, such as chronic pelvic pain and scarring are difficult to treat, but sometimes they improve with surgery.

How can PID be prevented?

Women can prevent PID by first protecting themselves from getting an STD (especially Chlamydia or gonorrhea). If infected with an STD, it is critical to seek treatment early. The way to avoid transmission of an STD is to abstain from sexual intercourse or be in a long-term, mutually monogamous relationship with an uninfected partner. Multiple sexual partners increase the risk for getting an STD and possibly developing PID. If a woman is sexually active, latex condoms can be effective in preventing Chlamydia or gonorrhea, if used consistently and correctly with each sexual contact (anal, oral, or vaginal intercourse). For all sexually active women under the age of 25 and older women with new or multiple sexual partners, CDC recommends annual tests for Chlamydia. Women experiencing any of the following symptoms may warrant an examination for an STD: bleeding between menstrual cycles, burning during urination, discharge with an odor, or unusual sores. If an STD is diagnosed, the woman and her sexual partner(s) should abstain from sexual activity until all are treated and cured. Treating STDs early can prevent PID.

For information about specific STDs/STIs, below are sources to use:

**Alan Guttmacher Institute
(AGI)**

120 Wall Street, 21st Floor
New York, NY 10005
Phone: 212/248-1111
Fax: 212/248-1951
<http://www.agi-usa.org>

**American Social Health
Association (ASHA)**

P. O. Box 13827
Research Triangle Park, NC 27709-
3827
Phone: 800-783-9877
<http://www.ashastd.org/>

**Centers for Disease Control and
Prevention – Sexually Transmitted**

Disease - STD information and
referrals to STD Clinics
CDC-INFO
Phone: 800-CDC-INFO (800-232-
4636); TTY: 888-232-6348 In English,
en Espanol
<http://www.cdc.gov/std/default.htm>

**CDC National Prevention
Information Network (NPIN)**

P.O. Box 6003
Rockville, MD 20849-6003
Phone: 800-458-5231;
Fax: 888-282-7681
1-800-243-7012 TTY
E-mail: info@cdcnpin.org

**The Henry J. Kaiser Family
Foundation**

2400 Sand Hill Road
Menlo Park, CA 94025
Phone: 650/854-9400
Fax: 650/854-4800
<http://www.kff.org>

National Herpes Hotline (NHH)

Open from 9 A.M. to 7 P.M., ET,
Monday - Friday.
Phone: 919/361-8488

**National HPV and Cervical
Cancer Prevention Hotline**

Open from 2 P.M. to 7 P.M., ET,
Monday - Friday.
Phone: 919/361-4848

**Planned Parenthood Federation
of America**

434 West 33rd St.
New York, NY 10001
212/541-7800
FAX: 212/245-1845
<http://www.plannedparenthood.org/>

**Sexuality Information and
Education Council of the United
States (SIECUS)**

130 West 42nd Street, Suite 350
New York, New York 10036-7802
Phone: 212/819-9770
Fax: 212/819-9776
<http://www.siecus.org>

Virginia Department of Health

109 Governor Street
Richmond, VA 23219
VIRGINIA STD/AIDS HOTLINE
Phone: 800-533-4148
<http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/factsheets.htm>