FALLOPIAN TUBE BLOCKAGE

Fallopian Tube Occlusion, Fallopian Tubal Obstruction, Bilateral Tube Obstruction, Unilateral Tube Obstruction

An obstruction prevents the egg or sperm from traveling down the tube, thus making fertilization impossible.

Diagnosis: Female

Related Diagnoses:
- Endometrial polyp
- Endometriosis
- Hematosalpinx
- Hydrosalpinx
- Pyosalpinx
- Pelvic Inflammatory Disease
- Uterine fibroids
- Ovarian cancer
- Tubal ligation
- Pelvic adhesions
- Tubal phimosis
- Pelvic tuberculosis
- Chlamydia infection
- Salpingitis
- Gonorrhea infection
- Bilateral fallopian tube blockage

About Fallopian tube blockage

Most women never suspect that they may have blocked or scarred fallopian tubes that prevent sperm from travelling towards an egg. About 80% of the infertility cases in women are caused by blocked tubes.

Based on the part in which the tubes are blocked three types of blockage can be distinguish:

- Distal tubal occlusion - the fallopian tube is blocked at the end closest to the ovary. This condition is commonly known as hydrosalpinx, usually caused by sexually transmitted infections.
- Midsegment blockage - the middle segment of fallopian tube is blocked. It is a common target of sterilization interventions, i.e. tubal ligation.
- Proximal tubal occlusion - the end of fallopian tube (near uterus) is blocked. This may be caused by infection due to abortion, miscarriages, cesarean section, or pelvic inflammatory disease.
The main causes and risk factors of blocked fallopian tubes include:

- congenital tubal obstruction
- abortion, micarriages
- genital infection caused by sexually transmitted diseases
- salpingitis - infection and inflammation in the fallopian tubes
- tubal phimosis
- tubal ligation
- ectopic pregnancy
- surgery (gynecologic surgery, abdominal surgery, cesarean section)
- endometriosis of the fallopian tubes causing an obstruction
- cancer of the tube, ovary or other surrounding organs
- exposure to drugs which damage the tubes, such as Diethylstilbestrol
- pelvic tuberculosis (common cause of infertility in developing countries and in Asia - India in particular)
- HIV infection

It is also possible that fallopian tubes are blocked only some of the time. Such type of blockage is referred as a “functional blockage”. This scenario is typical in women who experience a lot of stress. Stress tends to constrict pelvic musculature and decrease blood flow and this can be an important factor in inability to conceive.

**Diagnostic methods**

Fallopian tube obstruction can be diagnosed in a number of ways. Hysterosalpingography (HSG) and laparoscopy are the two most common procedures used in the evaluation of mechanical infertility. Images from HSG reveal uterine cavity distortion and the internal architecture of the tubal lumen, neither of which can be evaluated by laparoscopy. Laparoscopy provides detailed information about the pelvic anatomy that HSG cannot, including adhesions, endometriosis, and ovarian pathology. HSG is commonly performed as the firstline approach to assess the anatomy of the uterus and the patency of the fallopian tubes in infertile women.

**Associated disease**

- hydrosalpinx - the medical term for fluid in the fallopian tube, which occurs as a result of injury or infection
- sexually transmitted diseases (STD) - infections that are commonly spread by sex, especially vaginal intercourse anal sex and oral sex
- pelvic Inflammatory disease (PID) - a general term for infection of the uterus lining, fallopian tubes, or ovaries
- hematosalpinx - a medical condition involving bleeding into the fallopian tubes
- pyosalpinx - both tubes are affected with the accumulation of pus inside
Complications

It's also possible for the tube not to be blocked totally, but only partially. This can increase the risk of a tubal or ectopic pregnancy that are potentially life threatening.

Impact on fertility

Tubal factor infertility accounts for nearly one-quarter of all cases of infertility. The fallopian tubes may be abnormal in structure or function. Structural disorders can block the fallopian tubes. They include tubal scarring or blockage most commonly from pelvic infections, prior abdominal surgeries and endometriosis. Practically, many gynecologists are reluctant when reporting on diagnostic laparoscopy. Some perform a single puncture intraumbilical procedure that neglects an auxiliary portal for proper grasping of the adnexa and thorough evaluation of the ovarian fossa. Tubal pathologies may be responsible for primary and secondary infertility. The evaluation of the fallopian tube is necessary to determine the management plan of infertility. A number of diagnostic tests are being used in clinical practice to assess tubal patency as part of the work-up for subfertility.

Prevention

- if a woman is experiencing acute infection, antibiotic therapy is indicated in order to prevent damage to the fallopian tubes
- risk reduction against sexually transmitted infections through barrier methods such as condoms
- adequate and early antibiotic treatment of a pelvic infection

Symptoms

Women may experience certain symptoms or nothing at all.

- mild abdominal pain
- fever
- painful periods
- strange looking or smelling vaginal discharge
- feeling pain while having sex or passing urine
Therapies

Self therapy

For fallopian tube obstruction, alternative medicine has been used as a form of fertility treatment. A study of the use of alternative methods showed that only a minority of infertile couples utilize such treatments. This type of functional blockage responds very well to acupuncture as well as Chinese herbal medicine. It also showed that alternative methods are more often chosen by couples who were wealthier, have not yet achieved pregnancy, or had a belief in the effectiveness of such treatments. Of the study participants, 29% used a CAM (complementary and alternative medicine) modality for treatment, 22% used acupuncture, 17% used herbal therapies, and 1% using meditation.

Conventional medicine

Treatment of fallopian tube obstruction has traditionally been treated with fallopian tubal surgery (tuboplasty) with a goal of restoring patency to the tubes and thus possibly normal function. A common modern day method of treatment is in vitro fertilization as it is more cost-effective, less invasive, and results are immediate. Alternative methods such as manual physical therapy are also cited for the ability to open and return function to blocked fallopian tubes in some women. Treatments such as assisted reproductive technologies are used more often than surgery. Results of tubal surgery are inversely related to damage that exists prior to surgery. Development of adhesions remains a problem. Patients with operated tubes are at increased risk for ectopic pregnancy, although in vitro fertilization in patients with damaged tubes is also associated with a risk for ectopic pregnancy.

Pharmacotherapy

Clomid or Serophene

These drugs cause your pituitary gland to release follicle-stimulating hormone (FSH) and luteinizing hormone (LH), thereby growing the likelihood that you will ovulate and become pregnant.

Surgical therapy

1. Laparoscopy
The use of laparoscopy in infertility diagnosis and treatment is currently somewhat controversial. In some cases, laparoscopic surgery can open blocked tubes or remove scar tissue that is causing problems. The chance of success depends on how old you are (the younger, the better), how bad and where the blockage is, and the cause of blockage. Laparoscopic surgery does not always work, so the decision to undergo the procedure needs to be made with your doctor’s input about the cause and extent of your blockage. If just a few adhesions are between the tubes and ovaries, then your chances of getting pregnant after surgery are good. But if thick, multiple adhesions and scaring are between your tubes and ovaries, or if you have been diagnosed with hydrosalpinx, surgery may not be a good option for you. Also, if there are any male infertility issues, you might want to skip surgery. In these cases, IVF treatment is your best bet.

2. Microsurgery

Microsurgery is another treatment option for women whose tubes are not damaged along too much of their length. Surgery seems to be more effective if the damage is in the area closer to the uterus.

Microsurgical tubal reanastomosis can be used to restore fertility by rejoining the separated segments of the fallopian tube which was blocked by tubal ligation. In some cases, however, the separated segments cannot actually be reattached to each other.

3. Salpingectomy

Salpingectomy refers to the surgical removal of a Fallopian tube. It is often related to tubal pregnancies and is a procedure that is preferred over its ovarian tube - sparing counterparts due to the high rate of recurrence in said ectopic pregnancies.

4. Salpingostomy / Salpingotomy

Salpingectomy is different from a salpingostomy and salpingotomy. The latter two terms are often used interchangeably and refer to creating an opening into the tube (e.g. to remove an ectopic pregnancy), but the tube itself is not removed. Technically, the creation of a new tubal opening (os) by surgery would be a salpingostomy, while the incision into the tube to remove an ectopic is a salpingotomy.

5. Tubal cannulation
Tubal cannulation is a procedure where a thin catheter is advanced through the proximal portion of the fallopian tube os to examine and possibly restore tubal patency.

**Assisted reproduction**

IVF therapy has largely replaced tubal surgery in the treatment of infertility, the presence of hydrosalpinx is a detriment to IVF success. It has been recommended that prior to IVF, laparoscopic surgery should be done to either block or remove hydrosalpinges.

**Find more about related issues**

**Diagnoses**

**Endometrial polyp**
The finger like overgrowths attached to the inner wall of the uterus that extend into the uterine cavity which are made of endometrial tissue
Learn more at: [www.fertilitypedia.org/therapy/diag/endometrial-polyp](http://www.fertilitypedia.org/therapy/diag/endometrial-polyp)

**Endometriosis**
A state in which pieces of the tissue alike to the lining of the uterus (endometrium) grow in other parts of the body.
Learn more at: [www.fertilitypedia.org/therapy/diag/endometriosis](http://www.fertilitypedia.org/therapy/diag/endometriosis)

**Hematosalpinx**
Hematosalpinx is a medical condition involving bleeding into the fallopian tube.
Learn more at: [www.fertilitypedia.org/therapy/diag/hematosalpinx](http://www.fertilitypedia.org/therapy/diag/hematosalpinx)

**Hydrosalpinx**
A hydrosalpinx is an abnormal pouch containing liquid in a fallopian tube.
Learn more at: [www.fertilitypedia.org/therapy/diag/hydrosalpinx](http://www.fertilitypedia.org/therapy/diag/hydrosalpinx)

**Pyosalpinx**
A distally blocked Fallopian tube filled with pus.
Learn more at: [www.fertilitypedia.org/therapy/diag/pyosalpinx-do-rf](http://www.fertilitypedia.org/therapy/diag/pyosalpinx-do-rf)
Pelvic Inflammatory Disease
Infection of the upper part of the female reproductive system and a common complication of some sexually transmitted diseases.
Learn more at: www.fertilitypedia.org/therapy/diag/pelvic-inflammatory-disease-do-rf

Uterine fibroids
The most common benign smooth muscle tumors of the uterus encountered in women of reproductive age.
Learn more at: www.fertilitypedia.org/therapy/diag/uterine-fibroids

Ovarian cancer
A type of cancer in which abnormal cells begin to grow in one or both of a woman's ovaries.
Learn more at: www.fertilitypedia.org/therapy/diag/ovarian-cancer

Tubal ligation
A permanent form of female sterilization, in which the fallopian tubes are severed and sealed or "pinched shut", in order to prevent fertilization.
Learn more at: www.fertilitypedia.org/therapy/diag/tubal-ligation

Pelvic adhesions
A form of abdominal adhesions in the pelvis.
Learn more at: www.fertilitypedia.org/therapy/diag/pelvic-adhesions

Tubal phimosis
The type of blockage that affects the part of the fallopian tube end towards the ovary.
Learn more at: www.fertilitypedia.org/therapy/diag/tubal-phimosis

Pelvic tuberculosis
An infectious disease caused by the bacterium Mycobacterium tuberculosis and one of cause female infertility.
Learn more at: www.fertilitypedia.org/therapy/diag/pelvic-tuberculosis

Chlamydia infection
A common sexually transmitted disease (STD) caused by the Chlamydia trachomatis bacteria that can lead to serious reproductive morbidity.
Learn more at: www.fertilitypedia.org/therapy/diag/chlamydia-infection
Salpingitis
An acute inflammation of the fallopian tubes.
Learn more at: www.fertilitypedia.org/therapy/diag/salpingitis

Gonorrhoea infection
A sexually transmitted infection caused by the bacterium Neisseria gonorrhoeae.
Learn more at: www.fertilitypedia.org/therapy/diag/gonorrhoea-infection

Bilateral fallopian tube blockage
A blockage of both fallopian tubes.
Learn more at: www.fertilitypedia.org/therapy/diag/bilateral-fallopian-tube-blockage

Organs

Fallopian tubes
Two very fine tubes that transport sperm toward the egg, and allow passage of the fertilized egg back to the uterus for implantation.
Learn more at: www.fertilitypedia.org/edu/organs/fallopian-tubes

Reproductive cells

Oocyte
A female germ cell involved in reproduction.
Learn more at: www.fertilitypedia.org/edu/reproductive-cells/oocyte

Reproductive functions

Fertilization
The fusion of an ovum with a sperm to initiate the development of a new individual organism.
Learn more at: www.fertilitypedia.org/edu/reproductive-functions/fertilization

Risk factors

Abdominal surgery
Surgical procedures that involve opening the abdomen.
Learn more at: www.fertilitypedia.org/therapy/rf/abdominal-surgery
**Abortion**
The ending of pregnancy by removing a fetus or embryo before it can survive outside the uterus.
Learn more at: [www.fertilitypedia.org/therapy/rf/abortion](http://www.fertilitypedia.org/therapy/rf/abortion)

**Cesarean section**
A surgical procedure in which one or more incisions are made through a mother's abdomen and uterus to deliver one or more babies.
Learn more at: [www.fertilitypedia.org/therapy/rf/cesarean-section](http://www.fertilitypedia.org/therapy/rf/cesarean-section)

**Emotional stress**
Learn more at: [www.fertilitypedia.org/therapy/rf/emotional-stress](http://www.fertilitypedia.org/therapy/rf/emotional-stress)

**HIV infection**
A spectrum of conditions caused by infection with the human immunodeficiency virus (HIV).
Learn more at: [www.fertilitypedia.org/therapy/rf/hiv-infection-1](http://www.fertilitypedia.org/therapy/rf/hiv-infection-1)

**Miscarriage**
Pregnancy loss is the natural death of an embryo or fetus before it is able to survive independently.
Learn more at: [www.fertilitypedia.org/therapy/rf/miscarriage](http://www.fertilitypedia.org/therapy/rf/miscarriage)

**Sexually transmitted diseases**
Illnesses that have a significant probability of transmission between humans by means of human sexual behavior and that may impact fertility.
Learn more at: [www.fertilitypedia.org/therapy/rf/sexually-transmitted-diseases](http://www.fertilitypedia.org/therapy/rf/sexually-transmitted-diseases)

**Symptoms**

**Chronic pelvic pain**
Pain in the area of the pelvis, that lasts more than six months.
Learn more at: [www.fertilitypedia.org/edu/symptoms/chronic-pelvic-pain-1](http://www.fertilitypedia.org/edu/symptoms/chronic-pelvic-pain-1)

**Infertility**
The failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.
Learn more at: [www.fertilitypedia.org/edu/symptoms/infertility](http://www.fertilitypedia.org/edu/symptoms/infertility)
Lower abdominal pain
Pain that occurs in low area of abdomen, below the umbilicus.
Learn more at: www.fertilitypedia.org/edu/symptoms/lower-abdominal-pain

Vaginal discharge
The biological fluid secreted from the vagina.
Learn more at: www.fertilitypedia.org/edu/symptoms/vaginal-discharge

Therapies

Egg donation
Process by which a woman donates eggs for purposes of assisted reproduction or biomedical research.
Learn more at: www.fertilitypedia.org/edu/therapies/egg-donation

ICSI
A micromanipulative fertilization technique in which a single sperm is injected directly into an egg.
Learn more at: www.fertilitypedia.org/edu/therapies/icsi

Microsurgery of blocked tubes
Treatment option for women whose tubes were blocked by tubal ligation and will be rejoined again.
Learn more at: www.fertilitypedia.org/edu/therapies/microsurgery-of-blocked-tubes

Pharmacotherapy of infections
Antibiotics or antibacterials are a type of antimicrobial used in the treatment and prevention of bacterial infections.
Learn more at: www.fertilitypedia.org/edu/therapies/pharmacotherapy-of-infections

Pharmacotherapy of partial tube blockage
An advanced therapy with drugs triggering the ovulation, which is used in cases of fallopian tube blockage on one side.
Learn more at: www.fertilitypedia.org/edu/therapies/pharmacotherapy-of-partial-tube-blockage

Sperm donation
The procedure in which a man (sperm donor) provides his sperm for fertility treatment.
Learn more at: www.fertilitypedia.org/edu/therapies/sperm-donation
**Standard IVF**
A process in which an egg is fertilised by sperm outside the body: in vitro. Own or donated gametes may be used.
Learn more at: [www.fertilitypedia.org/edu/therapies/standard-ivf](http://www.fertilitypedia.org/edu/therapies/standard-ivf)

**Tubal reversal surgery**
A surgical procedure that can restore fertility to women after a tubal ligation.
Learn more at: [www.fertilitypedia.org/edu/therapies/tubal-reversal-surgery](http://www.fertilitypedia.org/edu/therapies/tubal-reversal-surgery)

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