

# Learn about ectopic pregnancy

Ectopic pregnancy occurs when the fertilised egg implants in tissue outside of the uterus and the placenta and fetus begin to develop there. The most common site is within a Fallopian tube. However, ectopic pregnancies can rarely occur in the ovary, the abdomen, and in the lower portion of the uterus (the cervix).

## Causes, incidence, and risk factors

Ectopic pregnancies are usually caused by conditions that obstruct or slow the passage of a fertilised ovum (egg) through the fallopian tube to the uterus. This may be caused by a physical blockage in the tube, or by failure of the tubal epithelium to move the zygote (the cell formed after the egg is fertilised) down the tube and into the uterus.

Most cases are a result of scarring caused by previous tubal infection or tubal surgery. Up to 50 percent of women with ectopic pregnancies have a medical history of salpingitis or PID (pelvic inflammatory disease). Some ectopic pregnancies can be traced to congenital tubal abnormalities, endometriosis, tubal scarring and kinking caused by a ruptured appendix, or scarring caused by previous pelvic surgery and prior ectopic pregnancies. In a few cases, the cause is unknown.

On occasion, a woman will conceive after elective tubal sterilisation. The risk of an ectopic

pregnancy occurring in this situation may reach 60 percent. Women who have had surgery to reverse previous tubal sterilisation in order to become pregnant also have an increased risk of ectopic pregnancy (when reversal is successful).

The administration of hormones (specifically estrogen and progesterone) can slow the normal movement of the fertilised egg through the tubal epithelium and result in implantation in the tube. Women who become pregnant despite using progesterone-only oral contraceptives have a 5-fold increase in the ectopic pregnancy rate.

Women who become pregnant despite using progesterone-bearing IUDs (Intra-Uterine Device of contraception) also have an increased risk of ectopic pregnancy. Ectopic pregnancy rates for those who become pregnant despite non-medicated IUD are 5 percent, while the rate for medicated IUD users who become pregnant despite the device is 15 percent. Note that these rates only refer to percents of the tiny proportion of women who become pregnant while using these methods -- they do not refer to women who have once used these methods and later become pregnant, or to the percent of women who become pregnant while using these methods.

The "morning after pill" is associated with a 10-fold increase

in risk of this condition when its use fails to prevent pregnancy.

Ectopic pregnancies occur from 1 in every 40 to 1 in every 100 pregnancies.

Increased risk is associated with women who have a history of salpingitis or PID, tubal surgery of any type (including tubal ligation and reversal of), or prior ectopic pregnancy.

## Symptoms

- λlower abdominal or pelvic pain
- λmild cramping on one side of the pelvis
- λamenorrhea (cessation of regular menstrual cycle)
- λabnormal vaginal bleeding -- usually scant amounts, spotting
- λbreast tenderness
- λnausea
- λback pain, low

If rupture and hemorrhaging occurs before successfully treating the pregnancy, symptoms may worsen and include:

- λSevere, sharp, and sudden pain in the lower abdominal area
- λfeeling faint or actually fainting
- λreferred pain to the shoulder area

## Signs and tests

A pelvic examination may reveal uterine adnexal (Fallopian tube or ovary region) tenderness.

λThere is usually a positive pregnancy test.

λUrine HCG (qualitative) tests may be falsely negative in up to 17.5 percent of them.

λIn contrast, serum HCG (quantitative) tests have only a 2 percent incidence of false-negative results.

λA hematocrit test may be normal or decreased.

λThe white blood count may be normal or increased.

λA culdocentesis may be performed to determine if free blood is present in the abdomen.

λAn ultrasound (transvaginal ultrasound or pregnancy ultrasound) illustrates an empty uterus. Products of conception may be evident elsewhere.

λA laparoscopy and/or a laparotomy may be necessary for adequate diagnosis.

λA D & C may be indicated to rule out a nonviable intrauterine

pregnancy.

λThis disease may also alter the results of the following tests:

λserum progesterone (a value of 25 ng/mL or more is 98 percent of the time associated with a normal pregnancy in the uterus, while a value of less than 5ng/mL indicates that the pregnancy, regardless of location, is not going to be successful)

## Treatment

In the event that pelvic-organ rupture has occurred because of the ectopic pregnancy, internal bleeding and/or hemorrhage may lead to shock. This is the first symptom of nearly 20 percent of ectopic pregnancies.

It is an emergency condition. Therefore, initial treatment may be needed to address shock by keeping the woman warm, elevating her legs, and administering oxygen. Treatment with intravenous fluids and sometimes a blood transfusion is performed as soon as possible.

Surgical laparotomy is performed to stop the immediate loss of blood (in cases in which rupture has already occurred), or to confirm the diagnosis of ectopic pregnancy, remove the products of conception, and repair surrounding tissue damage as much as possible. In some cases, removal of the involved fallopian tube may be necessary.

In non-emergency cases, mini-laparotomy or laparoscopy are the most common surgical treatments. Such procedures have similar outcomes. However, they are less invasive and are available at a lower cost because they require minimal hospitalization or outpatient treatment.

Non-surgical (medical) management is being implemented in many medical centers for ectopic pregnancies without suspected immediate danger of rupture. In such cases, methotrexate is administered with careful outpatient monitoring of the woman and serial quantitative HCGs, CBCs, and liver function tests.

Ectopic pregnancies cannot continue to term, so removal of the

developing cells is necessary to save the life of the mother.

## Expectations (prognosis)

About 85 percent of the women who have experienced one ectopic pregnancy are later able to achieve a normal pregnancy. A subsequent ectopic pregnancy may occur in 10 to 20 percent of cases. Some women fail to become pregnant again, while others become pregnant and spontaneously abort during the first trimester.

The maternal death rate from ectopic pregnancy in the U.S. has decreased in the last 30 years to less than 0.1 percent.

## Complications

λRupture, with resulting hemorrhage leading to shock and the risk of requiring a blood transfusion or rarely of death, is the most common complication.

λInfertility occurs in 10 to 15 percent of women who have experienced an ectopic pregnancy.

Calling your health care provider A woman who has an early pregnancy or who has had the opportunity to become pregnant and has symptoms (especially lower abdominal pain and/or abnormal vaginal bleeding) should notify her health care provider. Ectopic pregnancy can occur in any woman who is sexually active, regardless of contraceptive use.

## Prevention

Forms of ectopic pregnancy, other than tubal, are probably not preventable. However, tubal pregnancies, which make up the majority of ectopic pregnancies, may be prevented in some cases by avoiding those conditions that might cause scarring of the Fallopian tubes. Such prevention may include:

- λavoiding risk factors for PID (multiple partners, intercourse without a condom, and contracting sexually transmitted diseases, also called STDs)
- λearly diagnosis and adequate treatment of STDs
- λearly diagnosis and adequate treatment of salpingitis and pelvic inflammatory disease (PID)

Source: <http://health.yahoo.com>

## Did you know?

You can decrease the risk of spreading HIV through:

- λ Use condoms during sexual activity
- λ Do not share drug injection equipment
- λ Do not take unscreened blood
- λ If you are HIV-infected and pregnant, talk with your doctor about taking anti-HIV drugs
- λ If you are an HIV-infected woman, do not breast feed any baby
- λ Protect cuts, open sores, and your eyes and mouth from contact with blood.

# Rh incompatibility can cause a serious health hazard

Rh incompatibility is a condition which develops when there is a difference in Rh blood type between that of the pregnant mother (Rh negative) and that of the fetus (Rh positive).

## Causes, incidence, and risk factors

During pregnancy, red blood cells from the fetus can get into the mother's bloodstream as she nourishes her child through the placenta. If the mother is Rh

with severe Rh incompatibility.

It occurs several days after delivery and is characterised initially by loss of the Moro (startle) reflex, poor feeding, and decreased activity. Later, a high-pitched shrill cry may develop along with unusual posturing, a bulging fontanel, and seizures. Infants may die suddenly of kernicterus.

If they survive, they will usually later develop decreased muscle tone, movement disorders, high-pitched hearing loss, seizures, and decreased

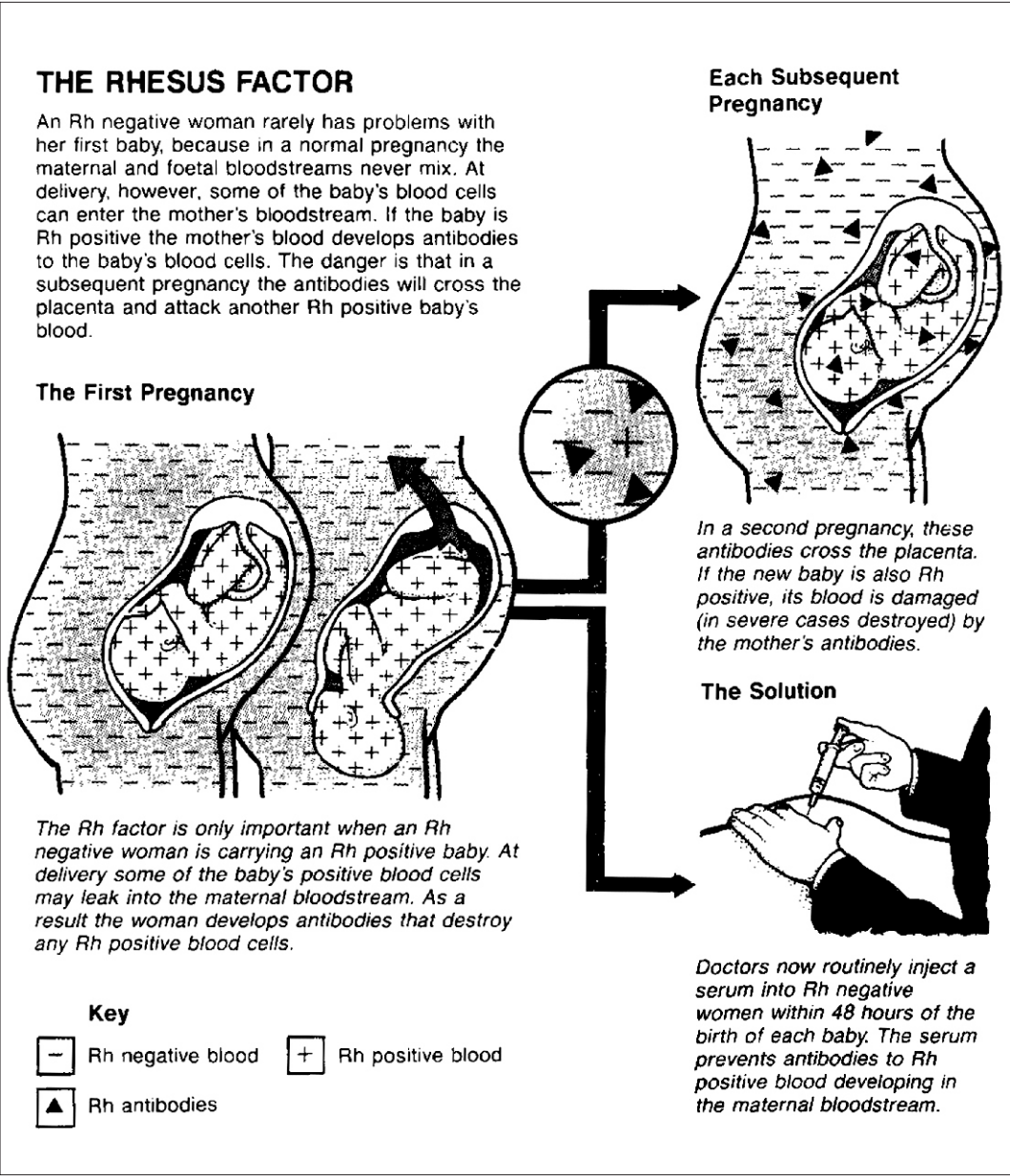
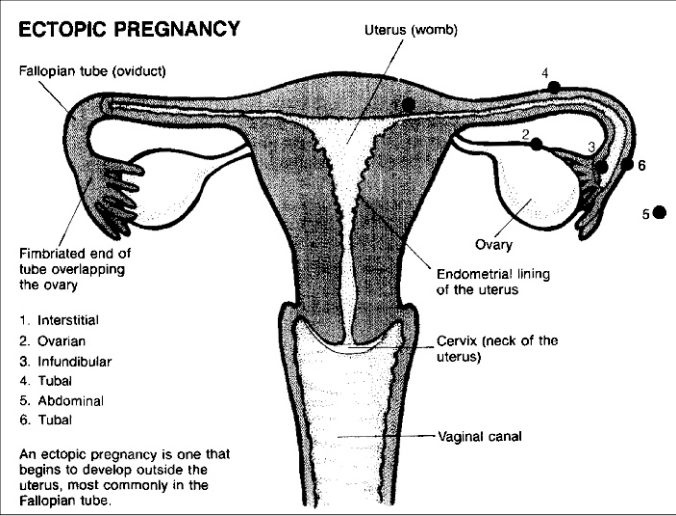
λmovement disorder

## Treatment

Since Rh incompatibility is almost completely preventable with the use of RhoGAM, prevention remains the best treatment. Treatment of the already affected infant depends on the severity of the condition.

Mild:

- λaggressive hydration
- λphototherapy using bilirubin lights
- Hydrops fetalis:
- λamniocentesis to determine severity



# Facts about hair and hair loss

Most people routinely lose between 70 and 150 hairs from their scalp each day, mainly through washing, brushing, and combing.

Scalp hair starts to thin when more hairs are lost through normal shedding than the scalp is able to renew. About 40 percent of the density of scalp hair has to be lost before thinning of the hair becomes noticeable.

## Hair loss can be caused by:

λ**Heredity:** Most balding is caused by a genetic predisposition - in other words, it is part of a person's genetic makeup. This is called male pattern baldness, or hereditary balding or thinning. It is the most common cause of thinning hair.

λ**Illness, certain physical conditions, or their treatments:** This can include high fever, thyroid disease, childbirth, inadequate protein in the diet, iron deficiency, cancer treatments, the use of certain medications, and other causes.

Hair may be lost in two ways:

λIn **patchy hair loss**, well-defined areas of hair are lost while the remaining scalp retains a good covering of hair.

λIn **generalised hair loss**, there is a uniform thinning over the entire scalp with no areas of normal hair growth.

The medical term for hair loss is **alopecia**. There are different classifications of alopecia:

λ**Alopecia areata** is a disease in which well-defined bald patches occur. It usually clears completely within 6 to 12 months without treatment.

λ**Alopecia totalis** is an uncommon

condition in which all hair on the scalp is lost. The cause is unknown, and the baldness is usually permanent.

λ**Alopecia universalis** is a total loss of hair on all parts of the body.

λ**Androgenetic alopecia** is balding caused by heredity. It can affect both men and women, although women with this inherited tendency do not become totally bald. The condition can start in a person's teens, twenties, or thirties.

## The structure of hair:

Every hair grows within a hair follicle, which is a tiny tube of cells close to the surface of the skin. Each hair has a root and a shaft within this follicle.

If you pluck a hair and hold it up to the light, the root will appear as a bulbous white swelling at the deep end. The root lies between 2 and 4 millimeters (about a tenth of an inch) under the skin surface. Its purpose is to produce the actual hair, which is known technically as the hair shaft.

The hair shaft contains no living tissue. It consists of protein material twisted into a very fine rope-like arrangement. It is this part of the structure that we think of in everyday terms as "hair."

Each hair has:

- λA **sebaceous gland**, which provides fats and greases to the hair
- λAn **erector muscle**, which is responsible for lifting the hair off the surface of the skin at times of stress or to conserve warmth

The hair root does not grow continuously, but rather in a cycle of stops and starts.

λThere is an initial period of active

growth that lasts about three years.

λAs the period of growth ends, the deepest part of the hair follicle wastes away.

λThe hair root then enters a resting period of about 90 days, during which no further hair is produced by the resting root.

λAt the end of this phase, the hair falls out and a new hair is produced.

Human hairs are randomly distributed all over the scalp in terms of their growth pattern, so that at any one time, some hairs will be actively growing while others are resting. Only those hairs ending their resting phase are lost each day.

There is tremendous variation in the number of hairs that people shed each day, depending on the number of scalp hairs and the length of the growth cycle. As people age, their rate of new hair growth slows down, resulting in a gradual thinning.

## What should I do if I think I am losing more hair than normal?

If you notice you are shedding hair excessively after combing or brushing, or if your hair is becoming thinner, you should consult with your primary care provider or a dermatologist (a physician who specializes in treating skin and hair problems). A doctor can determine if disease is present and whether or not the hair loss will respond to medical treatment.

## Facts about hair and hair loss

λThe average human scalp has about 100,000 hairs.

λNearly two out of every three men develop some form of balding, while a higher percentage of men and women have some form of hair loss during their lives.

λAbout 90 percent of a person's scalp hair is in a continual growth phase that lasts two to six years.

λThe other 10 percent of scalp hair is in a resting phase that lasts between two and three months.

λBetween 70 and 150 hairs are regularly lost from the scalp each day.

λPeople with blond hair typically have more hair (average 140,000 hairs) than the average brunette (105,000 hairs) or redhead (90,000).

λAbout 40 percent of the density of scalp hair has to be lost before thinning of the hair becomes noticeable.

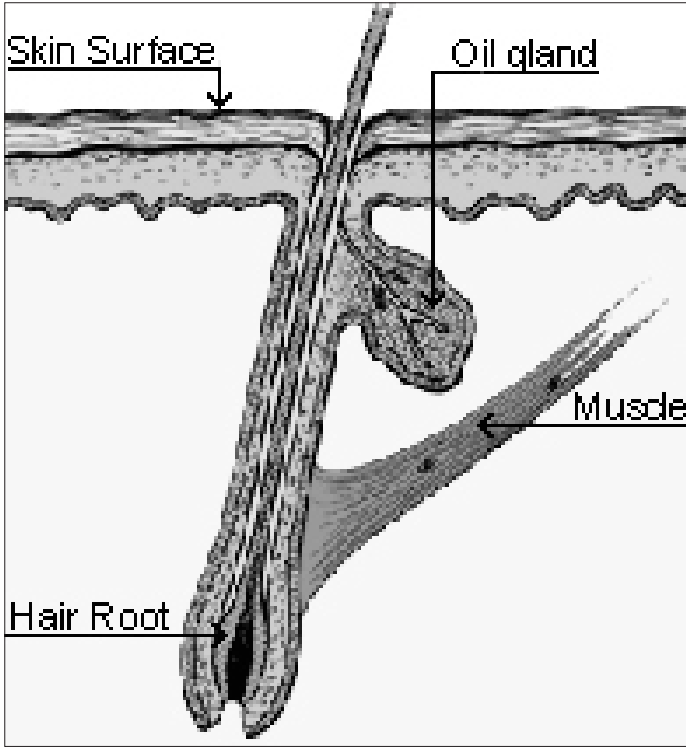
λShaving hair does not stimulate hair growth.

λHair plucking does not stop hair growth.

λHair grows faster in warm weather than in cold.

λHair grows at an average rate of 1 centimeter (around half an inch) per month.

Source: <http://health.yahoo.com>



negative, her system cannot tolerate the presence of Rh positive red blood cells.

In such cases, the mother's immune system treats the Rh positive fetal cells as if they were a foreign substance and makes antibodies against the fetal blood cells. These anti-Rh antibodies may cross the placenta into the fetus, where they destroy the fetus' circulating red blood cells.

First-born infants are often not affected (unless the mother has had previous miscarriages/abortions, which could have sensitised her system) as it takes time for the mother to develop antibodies against the fetal blood. However, second children who are also Rh-positive may be harmed.

Rh incompatibility can cause symptoms ranging from very mild to fatal. In its mildest form, Rh incompatibility causes hemolysis (destruction of the red blood cells) with the release of free hemoglobin into the infant's circulation.

Hemoglobin is converted into bilirubin, which causes an infant to become yellow (jaundiced). The jaundice of Rh incompatibility, measured by the level of bilirubin in the infant's bloodstream, may range from mild to dangerously high levels of bilirubin.

Hydrops fetalis is a complication of a severe form of Rh incompatibility in which massive fetal red blood cell destruction (a result of the Rh incompatibility) causes a severe anemia resulting in fetal heart failure, total body swelling, respiratory distress (if the infant has been delivered), and circulatory collapse. Hydrops fetalis often results in death of the infant shortly before or after delivery.

Kernicterus is a neurological syndrome caused by deposition of bilirubin into the brain (CNS) tissues. Kernicterus develops in extremely jaundiced infants, especially those

mental ability.

Rh incompatibility develops only when the mother is Rh negative and the infant is Rh positive. Special immune globulins, called RhoGAM, are now used to prevent this sensitisation. Hydrops fetalis and kernicterus have decreased markedly in frequency as a result of these preventive measures.

## Symptoms

- λRh positive infant delivered of an Rh negative mother
- λslowly or rapidly increasing jaundice
- λprolonged jaundice
- λhypotonia
- λmotor retardation
- λpolyhydramnios

## Signs and tests

- Mild Rh incompatibility:
- λpositive direct Coombs
- λevidence of hemolysis in the infant's blood
- λelevated cord blood bilirubin
- Hydrops fetalis:
- λsevere anemia
- λheart failure (cardiac failure)
- λenlarged liver (hepatomegaly)
- λrespiratory distress
- λbruising or purplish bruise-like lesions on the skin (purpura)

## Kernicterus -- Early:

- λhigh bilirubin level (greater than 18 mg/cc)
- λextreme jaundice
- λabsent Moro (startle) reflex
- λpoor suck
- λlethargy
- Kernicterus -- Mid:**
- λhigh-pitched cry
- λarched back with neck hyperextended backwards (opisthotonos)
- λbulging fontanel (soft spot)
- λseizures

## Kernicterus -- Late (full neurological syndrome):

- λhigh pitched hearing loss
- λmental retardation
- λmuscle rigidity
- λspeech difficulties
- λseizures

λintrauterine fetal transfusion

- λearly induction of labor
- λa direct transfusion of packed red blood cells (compatible with the infant's blood) and also exchange transfusion of the newborn to rid the blood of the maternal antibodies that are destroying the red blood cells
- λcontrol of congestive failure and fluid retention
- Kernicterus:
- λexchange transfusion (may require multiple exchanges)
- λphototherapy

## Expectations (prognosis)

Full recovery is expected for mild Rh incompatibility. Both hydrops fetalis and kernicterus represent extreme conditions caused by hemolysis. Both have guarded outcomes. Hydrops fetalis has a high mortality rate.

## Complications

neurological syndrome with mental deficiency, movement disorder, hearing loss, speech disorder, and seizures.

## Calling your health care provider

Call your health care provider if you think or know you are pregnant and have not yet seen a doctor.

## Prevention

Rh incompatibility is almost completely preventable. Rh negative mothers should be followed closely by their obstetricians during pregnancy.

If the father of the infant is Rh positive, the mother is given a mid-term injection of RhoGAM and a second injection within a few days of delivery.

These injections prevent the development of antibodies against Rh positive blood. This effectively prevents the condition.

Source: <http://health.yahoo.com>