



## Cesarean Scar Pregnancy

### Quick Facts

- Cesarean scar pregnancy is a rare but serious complication of pregnancy in which the embryo implants into the scar from a prior cesarean delivery.
- Treatment is needed to remove the pregnancy. Continuing a cesarean scar pregnancy is not advised. As the fetus grows, so does the risk of life-threatening problems for the mother, including heavy bleeding and rupture of the uterus.
- For women who have had a cesarean scar pregnancy, the risk of serious problems occurring in a future pregnancy is very high. Only a small number of women are able to have deliveries without problems.
- It is recommended that women who have had a cesarean scar pregnancy use a reliable birth control method, such as permanent sterilization or long-acting reversible methods (IUD or implant).



### What is a cesarean scar pregnancy?

- ⦿ In a normal pregnancy, the embryo implants into the wall of the uterus and starts to grow.
- ⦿ In a cesarean scar pregnancy, the embryo implants in or on the scar from a previous cesarean delivery.

### Can I have a normal pregnancy with a cesarean scar pregnancy?

- ⦿ In some cesarean scar pregnancies, there is no heartbeat. For these pregnancies, there is no chance of a live birth.
- ⦿ In cesarean scar pregnancies in which there is a heartbeat, very few survive to birth. In those that do, as the pregnancy progresses, there are significant risks for the mother. As the embryo grows, it can cause the scar to break open (rupture of the uterus). The placenta may grow abnormally into the wall of the uterus and sometimes into the bladder (a condition called *placenta accreta*). With either of these situations, serious problems, such as heavy bleeding (*hemorrhage*), can occur even if the pregnancy does make it to term.

Hysterectomy (surgery to take out the uterus) may be needed to stop heavy bleeding and save the mother's life if the uterus ruptures or placenta accreta is present.

- ⦿ Because of the risks to the mother's health, treatment to remove the pregnancy is recommended. Letting the pregnancy continue is not advised.

### Are cesarean scar pregnancies common?

Fortunately, these types of pregnancies are rare. They occur in about 1 in 1800 to 1 in 2500 pregnancies.

### What are the signs and symptoms of a cesarean scar pregnancy?

One-third of cesarean scar pregnancies do not cause any symptoms. One-third cause painless vaginal bleeding, and the remainder cause pain or other symptoms related to heavy bleeding, like rapid pulse or passing out.

### How is a cesarean scar pregnancy diagnosed?

A cesarean scar pregnancy is usually diagnosed during a first-trimester *ultrasound* exam. If you have had a cesarean delivery in the past, your health care provider will check for a cesarean scar pregnancy during your ultrasound exam. If a cesarean scar pregnancy is suspected, other imaging exams, such as *magnetic resonance imaging*, may be done as well.

### How is a cesarean scar pregnancy treated?

Different treatments can be used to treat a cesarean scar pregnancy, including surgery,



medications, or combinations of these treatments. The easiest and safest option of removing the pregnancy will be used. Other factors that are considered when choosing the best option include your current health, the symptoms (if any) you may be having related to the cesarean scar pregnancy, whether the embryo has a heartbeat, your desire for future childbearing, and the experience of your provider with different techniques.

- ⑥ Surgery to remove the pregnancy requires *anesthesia*. Recovery from surgery may take several days to weeks, depending on the kind of surgery that you have. For women who are sure that they do not want to become pregnant again, a hysterectomy can be done.
- ⑥ The pregnancy can also be removed through the vagina. There are several ways this can be done. In some cases, a procedure called *suction curettage* may be possible. In this procedure, a tube is inserted into the uterus through the vagina. The pregnancy is removed with suction. A *hysteroscope* is an instrument with a camera that is inserted into the uterus through the vagina. It allows tools to be used to remove the pregnancy.
- ⑥ *Uterine artery embolization (UAE)* uses small pellets to cut off the blood supply to the uterus. A thin tube is placed into the main artery that leads to the uterus using a needle placed in the groin. The pellets are then injected through the tube and block blood flow to the uterus, stopping the pregnancy and preventing bleeding. UAE is often used in combination with other treatments for cesarean scar pregnancy.
- ⑥ Medications can be injected into and around the pregnancy to stop the pregnancy from growing. Ultrasound is usually used to help ensure the injection is given in the correct location. Sometimes, an extra dose of the same medication is also given into the thigh or other large muscle. It may take several weeks for the pregnancy tissue to disappear completely. During this time, ultrasound exams, lab work, and sometimes both will be used to track what is happening. In some cases, additional treatment is needed to remove the tissue.

### What may happen if I get pregnant again after a cesarean scar pregnancy?

- ⑥ It's hard to predict what will happen if a woman who has had a cesarean scar pregnancy becomes pregnant again. In the few studies that have been done, cesarean scar pregnancy occurs again in 5% to 25% of women. Only a small number of women have been studied. All had a cesarean delivery.
- ⑥ Women who become pregnant after a cesarean scar pregnancy should have an early ultrasound exam (before 8 weeks of pregnancy) to check for a repeat cesarean scar pregnancy. The baby may be delivered early by cesarean

delivery if there are concerns about the prior scar or placenta. Medications called steroids may be given to help the baby's lungs and other organs mature. Babies who are born early may have problems breathing and eating. Some of these problems can be very serious and cause lifelong health issues. During the delivery, special staff and equipment will be on hand so that any problems, such as (maternal) bleeding, can be dealt with quickly.

### How can I avoid becoming pregnant again after a cesarean scar pregnancy?

Since it is not possible to specifically prevent another cesarean scar pregnancy, women who have experienced this complication may want to prevent all future pregnancies. *Sterilization* ("having your tubes tied") is one option. Sterilization is a permanent form of birth control that is done with surgery. *Long-acting reversible contraception methods* include the intrauterine device (IUD) and the arm implant. These options are as effective as sterilization in preventing pregnancy. They have few side effects and may even have benefits for some women, such as a decrease in menstrual pain. Other methods are also available. Talk with your health care provider about what is most important to you in a birth control method. Together, you can decide on a method that you are comfortable with.

## Glossary

**Anesthesia:** The use of drugs to prevent pain during surgery or other procedures.

**Bladder:** The organ in the pelvis that stores urine.

**Cesarean Delivery:** Surgery in which a baby is delivered through a cut (incision) in the mother's uterus.

**Cesarean Scar Pregnancy:** A pregnancy in which the embryo implants in a previous cesarean scar in the inside wall of the uterus.

**Embryo:** During pregnancy, the stage of development from when the fertilized egg implants in the uterus through the first 8 weeks.

**Hemorrhage:** Very heavy bleeding that can be life-threatening.

**Hysterectomy:** Surgical removal of the uterus.

**Hysteroscope:** A thin, lighted tube with a camera that is inserted into the vagina and uterus. It is used to see inside the uterus and to perform some surgical procedures, like removing a fibroid.

**Long-Acting Reversible Contraception Methods:** Birth control methods that last for years, are highly effective in preventing pregnancy, and can be removed if you want to become pregnant. These methods include intrauterine devices (which are put into the uterus) and the implant (which goes under the skin in your upper arm).

Glossary continued on next page



## Glossary

**Magnetic Resonance Imaging:** A type of imaging exam that uses powerful magnets to show internal organs, bones, and other tissues of the body.

**Placenta:** A special organ made by a woman's body during pregnancy. It allows the transfer of nutrients, antibodies, and oxygen to the fetus from the woman. It also makes hormones that sustain the pregnancy.

**Placenta Accreta:** A condition in which the placenta grows too deeply into the wall of the uterus and remains attached after childbirth. It can cause severe bleeding at the time of delivery. A hysterectomy (removal of the uterus) is usually needed to treat it.

**Sterilization:** A permanent form of birth control. In women, the fallopian tubes are cut and tied, closed off with bands or clips, or fused shut. For men, the tubes in which sperm travel are cut and tied or fused shut.

**Suction Curettage:** A procedure in which a tube is inserted into the vagina, and then suction is applied to remove a pregnancy or the lining of the uterus.

**Ultrasound:** Use of sound waves to create images of internal organs or the fetus during pregnancy.

**Uterus:** The organ in which the fetus develops during pregnancy.

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