

Miscarriages (Spontaneous Abortion) — Definition and Therapy

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Abortions, or so-called miscarriages, frequently occur in the context of precocious pregnancies. Generally, the affected people consult a gynecologist since vaginal bleeding occurs during pregnancy. There are different forms of abortions, which can be very painful but also asymptomatic. Mostly, removal of the fetus is necessary to avoid infections or further bleeding.



Introduction

An abortion is said to occur when a pregnancy ends before the fetus becomes viable. Abortions are very frequent, with a prevalence of 10-20%. The vital signs of the child are important in the context of the different forms of abortion.

Note: A typical symptom of spontaneous abortions is vaginal bleeding.

Imminent Abortion

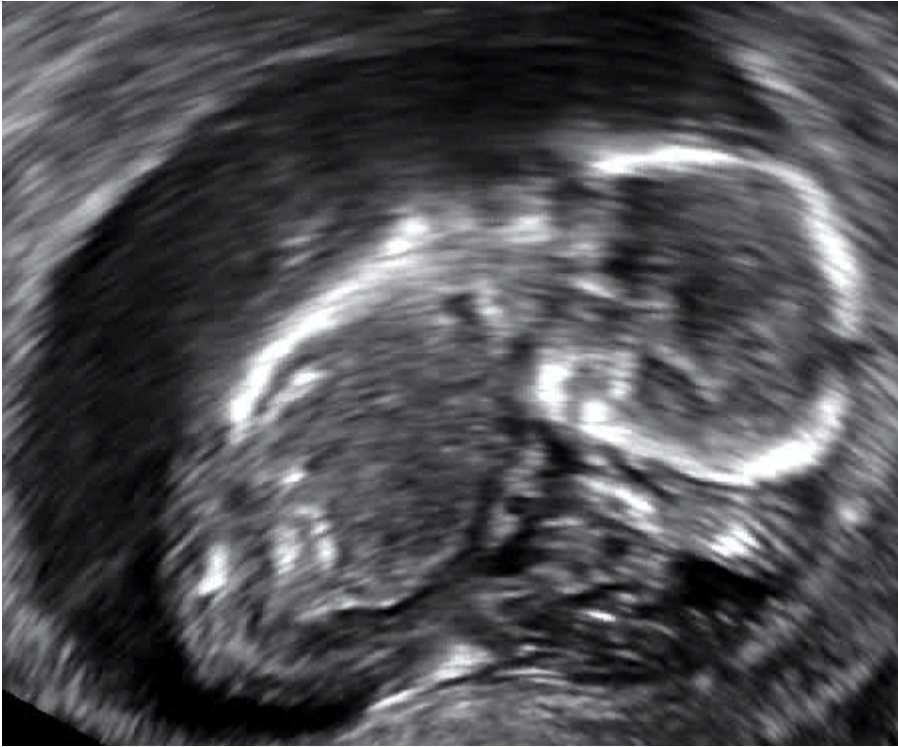
An imminent abortion is generally reversible. Typically, patients present with vaginal bleeding and a closed uterine orifice.

The pregnancy is still intact and infant heart sounds are still detectable. Therapy

could involve physical rest with the administration of magnesium.

Missed Abortion

A missed abortion mostly **has an asymptomatic course**. Usually, the diagnosis is made during routine examinations. Here, **no infant heart sounds** can be heard. **Curettage** is the first-line therapy.



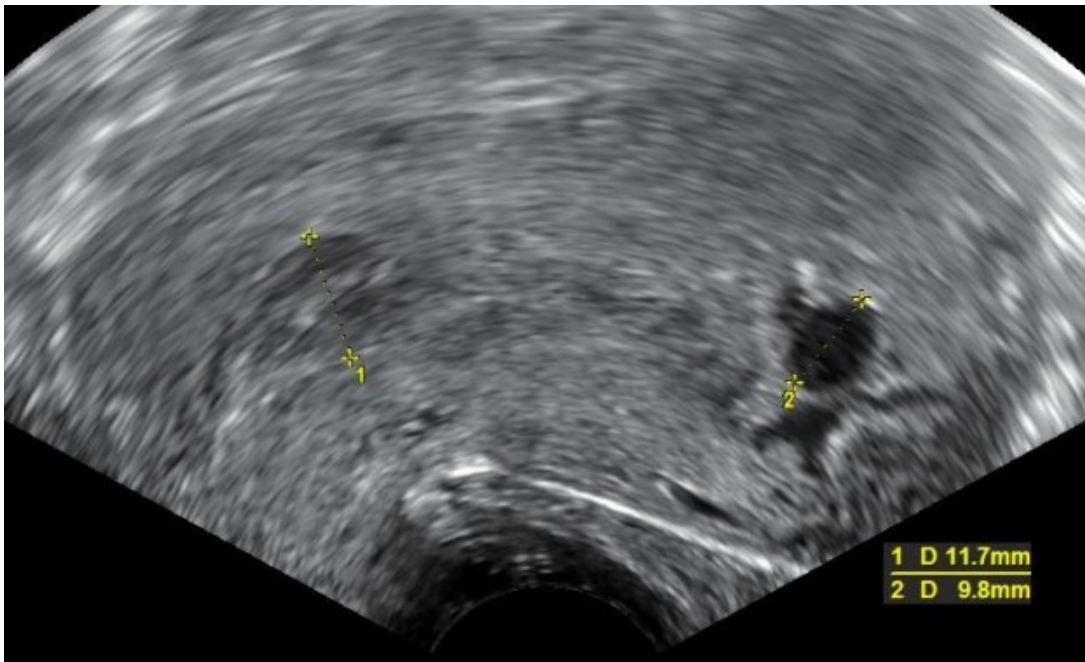
[Image](#): Delayed or missed abortion at 13 weeks. By: Mikael Häggström. License: Public Domain

Incipient Abortion

This is a **developing miscarriage**. The uterine orifice is already open due to labor. Typical symptoms are vaginal bleeding with pain in the lower abdomen and **absent infant heart sounds**. First-line therapy is also **curettage**.

Incomplete Abortion

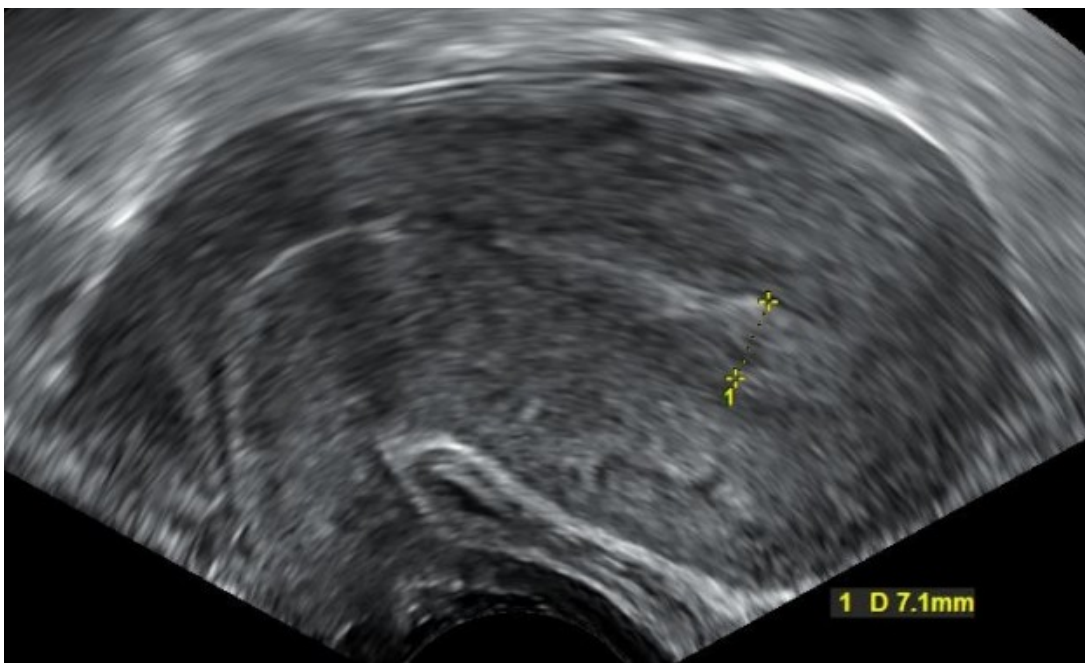
In incomplete abortion, parts of the **trophoblast** are already shed. The uterine orifice is completely open and **infant heart sounds are undetectable**. The patient often experiences severe vaginal bleeding with pain in the lower abdomen. Here, intervention is also necessary to remove the necrotic trophoblast.



[Image](#): Incomplete miscarriage. By: Mikael Häggström. License: Public Domain

Complete Abortion

In this type of abortion, the embryo is already **completely shed**, making **curettage** unnecessary. Clinically, the uterus is rather small and hard. The vaginal bleeding usually ceases.



[Image](#): Complete miscarriage. By Mikael Häggström, License: Public Domain

Habitual Abortion

Three or more consecutive spontaneous abortions are characteristic of habitual abortion. Etiologically, different factors can play a role, e.g., genetic changes with regard to **chromosomal aberrations**. Mostly, these are **balanced translocations**.

Polycystic ovarian syndrome is another cause of habitual abortion since follicle maturation is disturbed. Further, anatomical changes can lead to spontaneous abortions. Occasionally, **immunological causes** also play a role in habitual abortions. Frequently, an **antiphospholipid syndrome** is present, in which thromboembolic events occur from about the 2nd **trimester** onward and cause miscarriage.

The cause of habitual abortions is usually determined after extensive diagnostic workup. The patients are then treated for the underlying cause, e.g., with surgical correction of **uterine anomalies** or with immunological therapy if **antiphospholipid antibodies** are present.

Therapy for Abortions and Miscarriages

For therapy, **cerclage, tocolysis, and lung maturation induction** can be considered, in addition to **curettage**. Curettage is the first-line therapy in case of precocious pregnancies. Curettage is the scraping of the **uterine cavity** up to the superficial mucosa.

If the pregnancy has already progressed and is in the 24th week or more, tocolysis and lung maturation induction can be employed since the child is considered viable in this situation. Tocolysis is the inhibition of labor and can be achieved via medication with **sympathomimetic β 2 agonists** (e.g., **fenoterol**) or **magnesium sulfate**.

Lung maturation can be induced with **glucocorticoids**. An injection of 12 mg of **betamethasone or sympathomimetic β 2 agonists** is administered twice in 24-h intervals. These measures induce **surfactant production by pneumocytes**, preventing respiratory distress syndrome in the child.

Cerclage can become necessary after repeated spontaneous abortions due to **cervical insufficiency**. In this procedure, the physician tries to form the internal orifice of the uterus and hold it together with absorbable sutures.

References

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