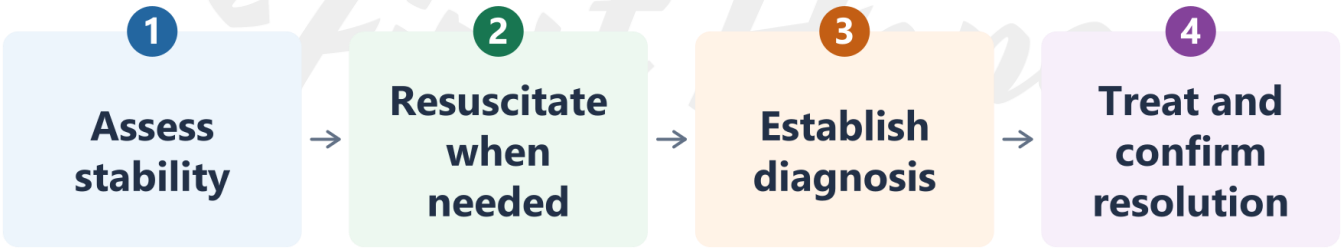
YouTube@FirstHope Medical | Instagram@firsthope.medical | Download Firsthope App

Obstetrics & Gynaecology - Topic 9 - Complications in early pregnancy

Assessing an Early-Pregnancy Complication

The First Priority Is Stability

- Pain, bleeding or severe vomiting in early pregnancy requires assessment of both the woman's condition and the pregnancy.
- Check airway, breathing, circulation, mental state, pulse, blood pressure and the amount of bleeding before a detailed routine history.
- Shock, collapse, severe abdominal pain or peritoneal signs require immediate senior help and resuscitation.
- A ruptured ectopic pregnancy can cause major internal bleeding with little visible vaginal blood.
- Obtain intravenous access, appropriate blood tests and blood-group testing, and prepare urgent transfer or treatment when required.
- Do not delay emergency care while waiting for a complete ultrasound report or a repeat hormone result.



History and Investigations

- Ask about menstrual dates, previous scans, pregnancy tests, pain, bleeding, tissue passage and fever.
- Record previous ectopic pregnancy, miscarriage, pelvic infection, uterine surgery, fertility treatment and relevant medicines.
- Examination may include the abdomen and a gentle speculum examination after consent, with further pelvic examination when indicated.
- Use transvaginal ultrasound and quantitative hCG when needed to assess location, development or follow-up.
- A full blood count, renal function, electrolytes, blood group and other tests are selected according to bleeding, infection or dehydration.
- A single hCG value cannot establish the location of a pregnancy or reliably diagnose its failure.

Copyright by Engacy Learning Private Limited. All rights reserved. Reproduction or distribution without written consent is strictly prohibited.

Miscarriage: Types, Causes and Diagnosis

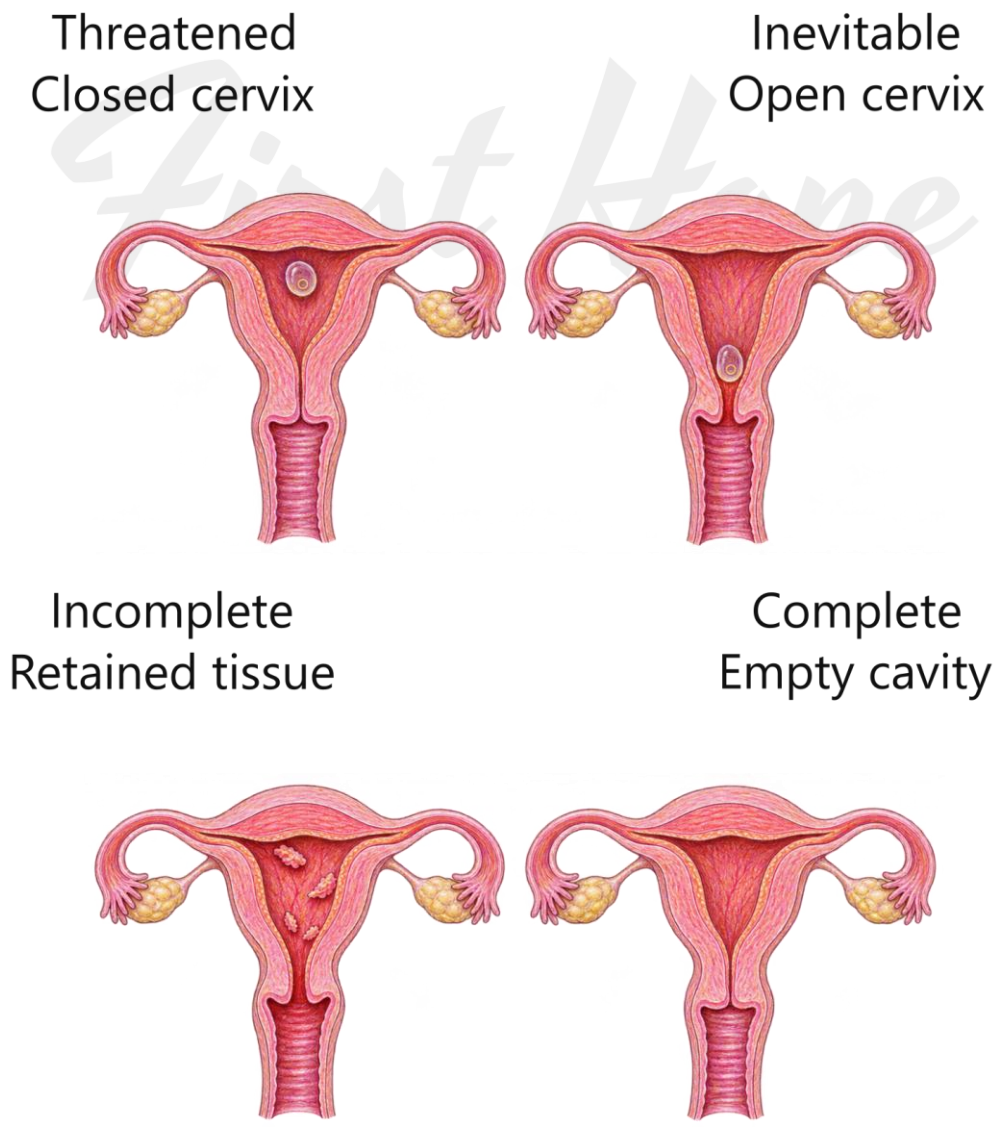
Definition and Terminology

- Miscarriage is spontaneous pregnancy loss before the locally defined threshold of viability; published gestational thresholds differ.
- The word abortion in clinical classifications may describe either spontaneous loss or an induced termination, so clarify the intended meaning.

Causes and Risk Factors

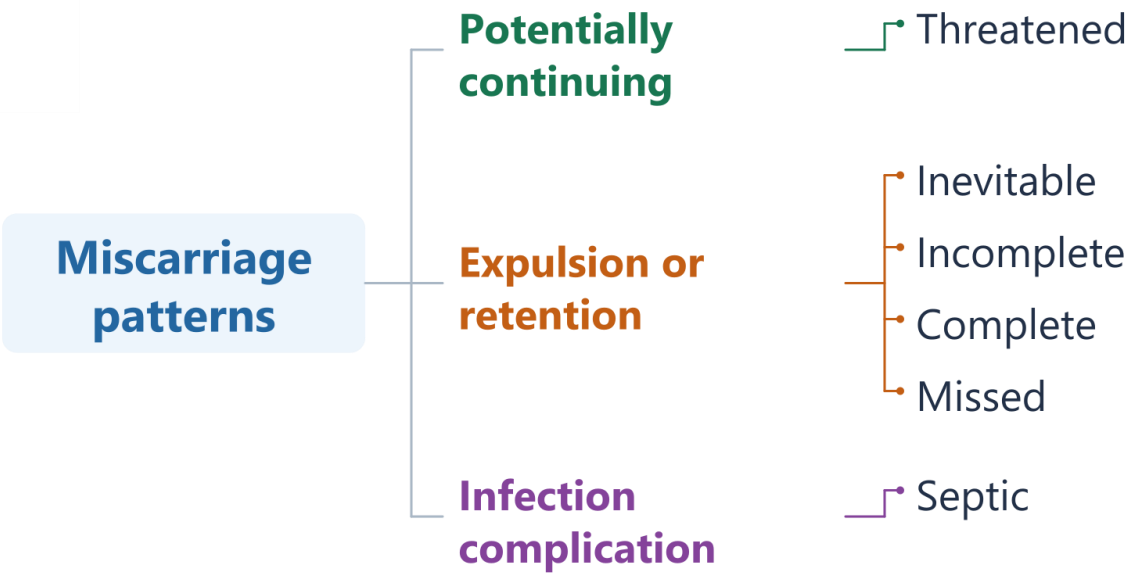
- Many early miscarriages result from embryonic chromosome abnormalities and are not caused by ordinary activity or the woman's actions.
- Other contributors include uterine abnormalities, important endocrine disease, antiphospholipid syndrome and selected infections or exposures.
- One early loss does not automatically require an extensive recurrent-loss investigation.

Types of Spontaneous Pregnancy Loss



Cervical opening and the presence of retained pregnancy tissue help distinguish clinical miscarriage patterns

Copyright by Engacy Learning Private Limited. All rights reserved. Reproduction or distribution without written consent is strictly prohibited.



1. Threatened Miscarriage

- Vaginal bleeding occurs while the cervix remains closed and the pregnancy may still be viable.
- Ultrasound assessment and follow-up determine whether the pregnancy is developing normally.
- The presence of bleeding does not itself prove that loss is inevitable.

2. Inevitable Miscarriage

- Bleeding and pain occur with an open cervix when the pregnancy cannot continue normally.
- The tissue may still be within the uterus, so the amount retained and the woman's condition guide care.

3. Incomplete Miscarriage

- Some pregnancy tissue has passed but some remains within the uterus.
- Continuing bleeding, cramping and retained tissue may be present, although examination and imaging findings vary.
- Heavy bleeding or infection makes prompt treatment more urgent.

4. Complete Miscarriage

- All pregnancy tissue has passed, and bleeding and pain usually settle.
- If no earlier scan confirmed an intrauterine pregnancy, an empty uterus must not automatically be labelled a complete miscarriage.
- An ectopic pregnancy may still require exclusion and follow-up.

5. Missed Miscarriage

- A non-viable pregnancy remains within the uterus, sometimes with few symptoms and a closed cervix.

Copyright by Engacy Learning Private Limited. All rights reserved. Reproduction or distribution without written consent is strictly prohibited.

- An anembryonic pregnancy contains a gestational sac without a developing embryo meeting the expected diagnostic criteria.
- Use validated ultrasound criteria and repeat assessment when uncertain before declaring the pregnancy non-viable.

6. Septic Miscarriage

- Infection complicates a miscarriage or an induced abortion and may spread to cause sepsis.
- Fever, pelvic pain, offensive discharge, uterine tenderness and systemic illness are important warning features.
- The absence of high fever does not exclude serious infection in a deteriorating patient.

Avoiding Diagnostic Error

Uncertain Viability and Measurement Limits

- An embryo or sac that is too small for a reliable viability assessment requires an appropriate repeat scan.
- For example, an embryo under 7 mm without visible cardiac activity on transvaginal scanning needs repeat assessment rather than an immediate diagnosis of loss.
- A second opinion or repeat scan may also be required when measurements reach diagnostic thresholds, according to the validated protocol.

Repeat-scan Timing and Safety Advice

- With transvaginal scanning, repeat after at least seven days when the crown–rump length is below 7 mm without cardiac activity or the mean sac diameter is below 25 mm without an embryo.
- At or above these measurements, obtain a second opinion and/or repeat the scan after at least seven days before diagnosing miscarriage; a transabdominal-only assessment needs a longer repeat interval, usually at least fourteen days.
- Explain uncertainty, arrange follow-up and provide clear instructions for worsening symptoms.

Managing Miscarriage

Threatened Miscarriage

Assessment and Supportive Advice

- Assess the cause of bleeding and confirm location and viability where possible.
- Provide explanation, appropriate analgesia and advice about urgent symptoms, with follow-up if bleeding persists or worsens.
- Routine bed rest has not been shown to prevent miscarriage and should not replace proper assessment.

Copyright by Engacy Learning Private Limited. All rights reserved. Reproduction or distribution without written consent is strictly prohibited.

Selected Progesterone Treatment

- For a scan-confirmed intrauterine pregnancy with bleeding and a previous miscarriage, vaginal micronised progesterone 400 mg twice daily is an evidence-based option.
- In that regimen, treatment continues to 16 completed weeks if fetal cardiac activity is confirmed.
- Progesterone is not a universal treatment for every bleeding episode or a substitute for excluding ectopic pregnancy.

Confirmed Non-Viable Intrauterine Pregnancy

1. Expectant Management

- A stable woman without infection or dangerous bleeding may choose to wait for spontaneous passage after informed discussion.
- Explain expected bleeding and pain, provide symptom relief and agree a review interval and emergency contact route.
- Persistent symptoms or failure to complete the miscarriage requires reassessment and discussion of further options.

2. Medical Management

- Medicines help the uterus expel retained tissue and can avoid an operation in suitable patients.

A. Missed Miscarriage

- For missed miscarriage, one established regimen uses mifepristone 200 mg orally followed 48 hours later by misoprostol 800 micrograms by an accepted route.

B. Incomplete Miscarriage

- For incomplete miscarriage, misoprostol alone is used; a common regimen is 600 micrograms once, with route and alternatives set by the local protocol.

Support, Follow-Up and Treatment Failure

- Provide analgesia, antiemetics, written instructions and a clear plan to confirm completion.
- Persistent heavy bleeding, infection, ongoing pregnancy or incomplete expulsion may require aspiration or another intervention.

3. Surgical Management

- Vacuum aspiration is appropriate when urgent evacuation is needed or when the informed patient prefers surgical treatment.
- Manual and electric aspiration use the same principle of suction through a cannula, but the vacuum source differs.
- Provide appropriate analgesia or anaesthesia, infection prevention and a plan for complications.

Copyright by Engacy Learning Private Limited. All rights reserved. Reproduction or distribution without written consent is strictly prohibited.

FREE PREVIEW

Click here to visit our website

MBBS PREMIUM NOTES

Complete MBBS notes for every subject and year are available only in the FirstHope app.

Scan or click here

Click here to get the app >

Available on Google Play

Browse MBBS notes by year

firsthope.co.in/mbbs

Click here to explore MBBS >

Scan or click here

FirstHope Medical on Instagram

@firsthope.medical

Click here to follow

App and notes help

Find answers about access and downloads

Click here for help

YEAR 1 / YEAR 2 / YEAR 3 / YEAR 4