



A miscarriage is defined as the loss of a pregnancy before 20 weeks gestation. A clinical pregnancy shows a gestational sac detectable by ultrasound 6-7 weeks into the pregnancy. Most miscarriages occur within the first trimester, defined as the first 12 weeks of pregnancy. The incidence of miscarriage becomes greater with the age of the mother (over 35 years) or the father. Miscarriages occur in up to 15% of all pregnancies and light bleeding (or spotting) occurs in up to 55% of all ART pregnancies.

## EMOTIONAL ASPECTS

Experiencing miscarriage can create feelings of shock, disbelief, guilt, anger, sadness, loneliness and depression. There is a period of grief experienced by the couple and repeated miscarriages can intensify these feelings. Grieving is a very personal experience and each partner may experience it differently. The Concept counsellor is available at all times and may be useful for couples to seek help.

## SIGNS OF MISCARRIAGE

If you experience heavy bleeding and/or bleeding associated with increased abdominal pain please contact your specialist gynaecologist or the Nurse Coordinator at Concept. In an emergency, attend the Emergency Department at King Edward Memorial Hospital. If you are a negative blood group you may need an injection called "anti-D".

## TYPES OF MISCARRIAGE

- Complete abortion
- Incomplete abortion- a D&C is usually required

- Inevitable abortion- blood tests indicate a drop in hormones and the pregnancy will not be ongoing
- Other non-progressing pregnancies include ectopic pregnancy, blighted ovum and molar pregnancy.

## CAUSES OF MISCARRIAGE

### Genetic

Genetic testing of the fetal tissue is sometimes taken at the time of D&C and often a chromosomal abnormality is traced back to one of the parents. Genetic counselling is encouraged before further pregnancy attempts.

### Uterine Abnormalities

*Septate Uterus*- a central ridge or "septum" of tissue protrudes into the uterus causing an inadequate blood supply which cannot support normal fetal growth, causing miscarriage. 3% of females have this congenital abnormality but only half will have reproductive difficulty;

*Uterine Fibroids* (non-cancerous tumours) can interfere with the implantation or growth of a fetus.

### Cervical Abnormalities

*Cervical Incompetence*- where the cervix is too weak to support a pregnancy without surgical intervention. 16% of mid-trimester miscarriages (16-20 weeks) are caused by this condition. A cervical stitch is sometimes considered.

### Hormonal Abnormalities

*Thyroid*- Hypo or Hyperthyroidism or thyroid antibodies are detectable by a blood test and can be treated by medication;

*Luteal Phase Defect*- or low progesterone can be detected by blood test and endometrial biopsy. Progesterone pessaries or crinone may be used to treat this defect;

*Prolactin* (a pituitary hormone) - an increase is detected by blood test and can be corrected by medication.

## MATERNAL INFECTION

Such as Chlamydia requires both partners to be treated with antibiotics and retested before attempting a further pregnancy.

## MATERNAL ILLNESS

Congenital heart disease, severe kidney disease or diabetes can cause miscarriage.

*Immune Conditions*- This is a complex area and is under intense investigation by researchers. Immunoglobins or antibodies such as lupus anticoagulants, anticardiolipins and antiphospholipids can affect fetal development, often resulting in miscarriage. Alteration in immunologic response of the mother against the pregnancy, causing rejection of the father's foreign material on the fetus, can also result in miscarriage. Any woman with these disorders is seen as high risk and needs careful treatment and monitoring before and throughout the pregnancy.

## ENVIRONMENT AND LIFESTYLE

Smoking, drinking and recreational drug use can increase the risk of miscarriage.