Clinical care for women seeking pregnancy after miscarriage

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This article is part of a longitudinal series on gynaecological conditions.

Background
Miscarriage is a common and distressing event that impacts women's physical and psychological wellbeing. Determining the appropriate time for a subsequent pregnancy and providing holistic care are essential for affected individuals.

Objective
This article aims to address the question of when it is deemed safe to attempt conception after a miscarriage and discuss strategies to promote a healthy pregnancy, considering inter-pregnancy intervals, psychological implications and medical management.

Discussion
Current evidence suggests that delaying conception does not yield any tangible benefits, and conception immediately after a miscarriage is safe. Psychological support, screening for depression and access to mental health services are crucial for comprehensive care. Medical considerations, including addressing modifiable risk factors and preconception counselling, play a vital role in reducing the risk of future miscarriages.
A multidisciplinary and patient-centred approach is essential for holistic care and improving overall outcomes.

MISCARRIAGE, defined as the spontaneous loss of a pregnancy before reaching the threshold of viability at the twentieth week of gestation, is a common phenomenon affecting at least 15% of clinically recognised pregnancies.[1] This figure might well represent an underestimation given that numerous instances of early miscarriage occur before a woman becomes cognisant of her pregnancy and thus could be misinterpreted as a prolonged menstrual cycle or excessive menstrual bleeding. Such pregnancies are referred to as 'biochemical' and can have different implications for the future compared with a more advanced pregnancy loss.[2]

Irrespective of the stage of gestation, experiencing a miscarriage can pose significant challenges for a woman, profoundly affecting their physical and psychological wellbeing. Consequently, providing holistic care requires addressing both aspects concurrently.

In this article, our primary objective is to answer the following frequently posed question: At what interval is it deemed safe for a woman to attempt conception following a miscarriage? To provide a comprehensive response, we will delve into the various factors that influence the appropriate time frame for conceiving post miscarriage, as well as the role of individual circumstances and medical history in determining this.

Furthermore, we will investigate strategies to promote a healthy pregnancy after a miscarriage, focusing on minimising the likelihood of subsequent pregnancy loss. We will involve the exploration of evidence-based recommendations related to lifestyle modifications, preconception health optimisation and appropriate medical interventions, all aimed at fostering a supportive environment for successful conception and pregnancy outcomes.

Inter-pregnancy interval

The appropriate interval for pregnancy after a miscarriage is dependent upon the individual, and determining that interval involves consideration of numerous factors. Unfortunately, the availability of high-quality research in this area is limited.

Most women opt to wait until symptoms of miscarriage, such as vaginal bleeding and abdominal cramps, have subsided before engaging in sexual activity again. However, it is imperative to inform women that physiological ovulation can occur two weeks before the commencement of menstruation, signifying that pregnancy can occur before the subsequent anticipated menstrual cycle.

The American College of Obstetricians and Gynecologists,[3] the American Society for Reproductive Medicine[4] and the Royal College of Obstetricians and Gynaecologists[5] recommend that couples defer conception attempts for at least one to three menstrual cycles following a miscarriage. These recommendations are predicated on the belief

that the body might require several weeks to recuperate physically after a miscarriage rather than being based on any substantiated adverse outcomes for the mother or for future pregnancy. A systematic review demonstrated that an inter-pregnancy interval of fewer than six months was not associated with an increased risk of an adverse outcome for either mother or baby.[6]

Furthermore, a shortened inter-pregnancy interval of fewer than three to six months might be correlated with a diminished risk of subsequent miscarriage, preterm birth, small-for-gestational-age infants, gestational diabetes and preeclampsia.[7–10] A secondary analysis of the Effects of Aspirin in Gestation and Reproduction trial[11] revealed that an inter-pregnancy interval of fewer than three months was associated with an increased live birth rate and a shorter duration to pregnancy culminating in a live birth.[12]

Some couples might be prepared to attempt conception earlier, whereas others might require an extended period to mourn and process the loss. The decision should ultimately be made in consultation with a healthcare provider, considering individual factors such as age, medical history and emotional readiness. Reassuringly, current evidence suggests that delaying conception does not yield any tangible benefits, and conception immediately after a miscarriage is safe, should a couple decide it is appropriate for their circumstances.

Psychological implications of miscarriage

Miscarriage is a significant and distressing event that affects the individual's physical wellbeing as well as their psychological and emotional health. Women and their partners might experience many emotions, such as grief, depression, anxiety, guilt and feelings of inadequacy.[13–15] Relationship challenges and even symptoms of post-traumatic stress disorder can also emerge.[16,17] The psychological consequences of miscarriage can be as enduring and debilitating as the physical symptoms, significantly affecting a person's overall wellbeing.[18]

A prospective cohort study revealed that approximately 29% of individuals who experienced a pregnancy loss exhibited a substantial mental health burden one month after the event. Moreover, nearly 20% of these individuals continued to display symptoms up to nine months post miscarriage.[17] These findings highlight the importance of addressing the psychological implications of pregnancy loss as part of a comprehensive approach to miscarriage management.

Healthcare providers should routinely screen women who have experienced a miscarriage for depression using assessment tools such as the Edinburgh Postnatal Depression Scale. Timely identification of depressive symptoms can facilitate prompt referral to appropriate mental health support services, such as individual or couples counselling and support groups. These interventions can provide a safe, nurturing environment for affected individuals to express their emotions, learn coping strategies and formulate plans for future pregnancies.

Various resources are available to support individuals dealing with pregnancy loss, including organisations such as SANDS Australia (www.sands.org.au) and the Red Nose Pregnancy Loss Group (https://rednosegriefandloss.org.au/support/article/bereavement-support-services). These groups offer specialised counselling services and community support tailored to the unique needs of those who have experienced a miscarriage. By connecting with others who have faced similar challenges, individuals can find solace in shared experiences and obtain valuable guidance on navigating the emotional complexities of pregnancy loss.[19]

Considering the diverse emotional reactions and coping mechanisms individuals might exhibit in response to miscarriage, healthcare providers should continue to provide a patient-centred approach when delivering care. This entails providing empathetic, non-judgemental support and respecting each patient's unique experience and decision-making process. By fostering a compassionate, supportive environment, healthcare providers can facilitate open communication, enhance patient satisfaction and improve overall outcomes.[20]

Addressing the psychological aspects of miscarriage is an essential component of comprehensive care for affected individuals. Healthcare providers should screen for depression and ensure patients have access to appropriate mental health support services, such as counselling and support groups. By providing a holistic approach to miscarriage care, healthcare providers can help individuals manage their emotional wellbeing, foster resilience and enhance their overall quality of life during this challenging time.

Medical considerations and management post miscarriage

Miscarriage is a distressing event that can affect a woman's and their partner's physical and emotional wellbeing profoundly. Understanding the potential factors contributing to miscarriage can offer valuable insight and reassurance to affected women. Research suggests that approximately 70% of miscarriages result from chromosomal abnormalities[21] and occur due to circumstances beyond a woman's control. It is crucial to emphasise that there might have been no preventive measures that could have been taken to avoid it.

When assessing a woman after a miscarriage, it is imperative to ensure that their routine antenatal screen has been completed (Table 1).

Women should also be advised to take folic acid 500 mcg daily for at least one month prior to conception and to continue for the first three months of pregnancy. For women at a higher risk of their baby developing a neural tube defect, a dose of 5 mg daily is recommended.[23]

In managing miscarriage, routine blood tests and imaging are not generally indicated unless investigating recurrent pregnancy loss (RPL); in cases of RPL, women should be screened for the features listed in Table 2. The February 2023 update to the European Society of Human Reproduction and Embryology guideline on RPL changed the definition of RPL to two or more pregnancy losses;[24] previous guidelines defined RPL as three or more consecutive miscarriages.[25]

A multitude of other tests are available, none of which have been shown to be beneficial in investigating RPL. They certainly should not be used after a single miscarriage.[24]

A comprehensive history should be taken and a comprehensive examination conducted, with particular attention paid to pre-existing medical conditions such as diabetes, thyroid disorders, cardiovascular disease and obesity. Depending on the findings, a multidisciplinary approach should be taken

to manage these conditions and optimise the patient's health before attempting another pregnancy. This might involve close collaboration between general practitioners, obstetricians, endocrinologists, cardiologists and other specialists as needed.

Additionally, lifestyle modifications (Table 3) and preconception counselling can play a crucial role in reducing the risk of future miscarriages.

Women should also be informed about the availability and utility of preconception genetic carrier screening, as recommended by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists.[32] Screening can be performed for the three most common conditions (cystic fibrosis, spinal muscular atrophy and fragile X syndrome) or expanded panel screening for over 500 genetic conditions (https://eugenelabs.com).

There is no evidence that increased monitoring or surveillance is required in future pregnancies after a single miscarriage. However, to decrease anxiety and fear,[33] an early ultrasound should be performed (about two weeks after a missed menstrual period) and extra attention should be paid to symptoms of vaginal bleeding, spotting and cramps.[34]

Table 1. Prenatal assessment[22]

Assessment	Specific tests
Blood tests	• FBC, blood group and antibody screen, hepatitis B serology, hepatitis C serology, HIV, syphilis serology, varicella, rubella antibody screen
Other tests	• CST • Midstream urine
Additional tests to consider	• STI screen if aged <30 years, in area of high prevalence or in at-risk group • Haemoglobin electrophoresis, if indicated • Vitamin D level • TSH • CMV IgG, if in close proximity to children (eg childcare worker)
Behavioural screening	• Mental health: EPDS or ANRQ tool • Family violence

ANRQ, Antenatal Risk Questionnaire; CMV, cytomegalovirus; CST, cervical screening test; EPDS, Edinburgh Postnatal Depression Scale; FBC, full blood count; HIV, human immunodeficiency virus; IgG, immunoglobulin G; STI, sexually transmitted infection; TSH, thyroid stimulating hormone.

Table 2. Recurrent pregnancy loss investigations[23]

Investigation	Specific tests
Blood tests	Antiphospholipid screen (for lupus anticoagulant, anticardiolipin antibody, β2 glycoprotein antibody), ANA, TSH Ab and TPO antibodies
Scans	To assess uterine cavity for uterine anomalies (eg uterine septum, fibroids and adhesions). Preferred method is a 3D-TVS, but can also consider sonohysterography, HSG or two-dimensional ultrasound
Genetic tests	Consider a karyotype test to screen for chromosomal abnormalities

3D-TVS, three-dimensional transvaginal ultrasound; ANA, antinuclear antibodies; HSG, hysterosalpingography; TPO, thyroid peroxidase; TSH Ab, thyroid stimulating hormone receptor antibodies.

Conclusion

Post-miscarriage management requires a comprehensive and multidisciplinary approach that encompasses medical considerations, psychological support and lifestyle modifications. Healthcare providers should ensure that women are well informed about the potential factors contributing to miscarriage, the importance of addressing modifiable risk factors and the availability of diagnostic testing and screening options. By providing a holistic approach to miscarriage care, healthcare professionals can help women and their partners better understand and cope with the loss while optimising their chances for a healthy pregnancy in the future.

Key points

- Miscarriage can exert a considerable effect on both the physical and psychological wellbeing of a woman.
- Current empirical studies indicate that immediate conception after a miscarriage does not pose risks and protracted delays do not yield discernible advantages.
- Comprehensive care encompasses not only psychological support, but also systematic depression assessments and facilitated access to specialised mental health services.
- Proactive interventions, including the identification and management of modifiable risk factors and rigorous preconception counselling, have the potential to reduce the incidence of subsequent miscarriages.
- Embracing a multidisciplinary and patient-centric paradigm is imperative to ensure exhaustive care and enhanced patient outcomes.

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Table 3. Health behaviour modifications

Activity/Marker	Reason for modification
Smoking	Cessation recommended as maternal and paternal smoking have a potential effect on pregnancy loss[26,27]
Alcohol consumption	Cessation recommended as there is a potential increased risk of miscarriage in women who drink regularly (at least once a week)[28]
Weight	Aim for a BMI of 18.5–30 kg/m^2. Both obesity and being underweight can be associated with miscarriage[29]
Caffeine	Avoid consuming >150 mg/day, as this can be linked to RPL[30]
Exercise	No clear correlation between exercise and miscarriage; however, exercise is beneficial to overall health, fertility and decreasing risk of gestational complications[31]

BMI, body mass index; RPL, recurrent pregnancy loss.

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