CATEGORY: BEST PRACTICE STATEMENT

Pre-pregnancy Counselling

This statement has been developed and reviewed by the Women's Health Committee and approved by the RANZCOG Board and Council.
A list of Women's Health Committee Members can be found in Appendix A.
Disclosure statements have been received from all members of this committee.

Disclaimer This information is intended to provide general advice to practitioners. This information should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any patient. This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The document has been prepared having regard to general circumstances.

First endorsed by RANZCOG: July 1992
Current: November 2021
Review due: November 2026

Objectives: To provide health professionals with advice on the counselling of women prior to pregnancy.
Target audience: All health professionals providing care to women prior to pregnancy.
Values: The evidence was reviewed by the Women's Health Committee (RANZCOG) and applied to local factors relating to Australia and New Zealand.
Background: This statement was first developed by Women's Health Committee in July 1992 and reviewed in July 2017 and most recently in November 2021.
Funding: The development and review of this statement was funded by RANZCOG.

Contents

1. Plain language summary

A woman's health prior to conception is critical to the outcome of her pregnancy and may have a lifelong impact on her child's health. There is a lot that women can do prior to pregnancy to optimise their health including lifestyle changes such as a healthy diet and appropriate supplementation.

Pre-pregnancy care helps find issues that may affect a woman's pregnancy, so that steps can be taken to manage potential problems prior to pregnancy.

2. Summary of recommendations

Recommendation 1	Grade
Medical history An assessment of any medical problems and a discussion of how they may affect, or be affected by, a pregnancy should be undertaken. Stabilisation of pre-existing medical conditions and assessment of mental health status prior to a pregnancy is necessary to optimise pregnancy outcomes.	Consensus-based recommendation
Recommendation 2	**Grade**
Reproductive carrier screening All women and couples planning pregnancy should be offered reproductive carrier screening. If there is an increased risk of a heritable disorder, based on the family history or ethnic background, then pre-pregnancy genetic counselling should be offered to assist in determining the couple's risk of an affected child and to provide information about options for carrier screening, preimplantation genetic diagnosis, prenatal diagnosis and postnatal management.	Consensus-based recommendation
Recommendation 3	**Grade**
Vaccinations Vaccination history for SARSCoV-2, measles, mumps, rubella, varicella zoster, diphtheria, tetanus and pertussis should be checked and maintained as per recommendations published by the relevant Australian and New Zealand Government bodies. Hepatitis B, rubella and varicella immunisation should be considered for women with incomplete immunity.	Consensus-based recommendation
Recommendation 4	**Grade**
Lifestyle recommendations *Healthy weight* Active steps to correct high BMI (dietary, exercise and where appropriate consideration of bariatric surgery) prior to a pregnancy should be recommended. *Supplementation* Folic acid should be taken for a minimum of one month before conception and for the first 3 months of pregnancy. The recommended dose is at least 0.4mg daily. Where there is an increased risk of NTD (anti-convulsant medication, pre-pregnancy diabetes mellitus, previous child or family history of NTD, BMI >30), a 5mg daily dose should be used.	Consensus-based recommendation

Substance use Counselling and pharmacotherapy should be considered for either or both parents when relevant. Advice to women that there is no known safe level of alcohol consumption during pregnancy is appropriate.	

3. Introduction

All women planning a pregnancy are advised to consult their General Practitioner with a view to:

1. Detecting and assessing any specific health problems in the woman or her partner that may be relevant, so that these can be appropriately managed prior to the pregnancy.
2. Obtaining advice about optimising personal health care and lifestyle with pregnancy in mind.

Other health care professionals (such as obstetricians, infertility specialists, and midwives), may also be presented with a valuable opportunity to assess and counsel a woman prior to a planned pregnancy.

4. Discussion and recommendations

4.1 Clinical assessment

Most important is a detailed medical history and clinical examination. The clinical examination should include blood pressure, body mass index (BMI), auscultation of heart sounds, and where relevant breast examination and cervical screening test.

4.2 Medical history

An assessment of any medical problems and a discussion of how they may affect, or be affected by, a pregnancy should be undertaken.

Stabilisation of pre-existing medical conditions and assessment of mental health status prior to a pregnancy is necessary to optimise pregnancy outcomes. Where serious medical conditions are known to exist, multidisciplinary pre-pregnancy planning should be undertaken.

Women at increased risk for specific medical conditions (eg. thyroid disease, nutritional or vitamin D deficiency, diabetes, hyperlipidaemia, thromboembolism) should be tested and managed appropriately before conception.

4.3 Genetic/Family history

Pre-pregnancy screening for inheritable genetic conditions is preferable to antenatal screening as this provides more options for carrier couples.

All women and couples contemplating pregnancy should be offered reproductive carrier screening (RCS) if this has not already been undertaken. If there is an increased risk of a heritable condition based on the family history or ethnic background then pre-pregnancy genetic counselling should be offered to determine the couple's risk of an affected child and to provide information about options for specific carrier screening, preimplantation genetic diagnosis, prenatal diagnosis and postnatal management.

Refer to College Statement Prenatal screening and diagnosis of chromosomal and genetic conditions in the fetus in pregnancy (C-Obs 59)

4.4 Medication use

It is important to review all current medications including over the counter medicines, with regard to their appropriateness and teratogenic potential. Consideration may need to be given to changing medication prior to a pregnancy with a view to achieving the dual objectives of optimising disease control while minimising teratogenic risk.

4.5 Vaccinations

All women considering a pregnancy should be aware of their vaccination status and, if uncertain, liaise with their general practitioner. Vaccination history for SARSCov-2, measles, mumps, rubella, varicella zoster, diphtheria, tetanus and pertussis should be checked and maintained as per recommendations published by the relevant Australian and New Zealand Government bodies. Hepatitis B, rubella and varicella immunisation should be considered for women with incomplete immunity. Pregnant women should be immunised against influenza. dTpa vaccine for Pertussis is recommended as a single dose during the third trimester of each pregnancy. The optimal time for vaccination is early in the third trimester between 28 and 32 weeks but the vaccine can be administered from 20 weeks onwards.[1]

4.6 Lifestyle recommendations

4.6.1 Healthy weight/nutrition/exercise

A healthy, well balanced diet is strongly recommended before, during and after pregnancy.[1, 2]
Discussion regarding weight management is appropriate with counselling against being over or underweight. High BMI (>30) is now one of the commonest and most important risk factors for infertility and adverse pregnancy outcomes. Such risks can manifest even before conception and implantation. High BMI has been shown to affect the health of the human oocyte and the quality of the early embryo. [3, 4] High BMI has an adverse impact on the rates of miscarriage, stillbirth and fetal abnormality. Further, a high BMI exposes the mother to an increased risk of many pregnancy and anaesthetic complications. There is also increasing recognition of the intergenerational effects of maternal obesity that may manifest during childhood with obesity and/or later on in adult life with increased risk of metabolic disease. Active steps to correct obesity (dietary, exercise and where appropriate consideration of bariatric surgery) prior to a pregnancy are worthwhile.

A recommendation for moderate intensity exercise and assessment of any nutritional deficiencies is appropriate. Excessive caffeine consumption (>300mg/day; equivalent to 3-4 cups of brewed coffee/day) should be avoided. [5]

Refer to RANZCOG statement on Obesity in Pregnancy (C-Obs 49)

4.6.2 Folic acid and iodine supplementation

It is recommended that folic acid should be taken for a minimum of one month before conception and for the first 3 months of pregnancy. The recommended dose of folic acid is at least 0.4mg daily to aid the prevention of neural tube defects (NTD). Where there is an increased risk of NTD (anti-convulsant medication, pre-pregnancy diabetes mellitus, previous child or family history of NTD, BMI >30), a 5mg daily dose should be used.

The NHMRC recommends women should start a dietary supplementation of 150mcg of iodine prior to a planned pregnancy or as soon as possible after finding out they are pregnant.[6]

The NZ Ministry of Health recommends women should start dietary supplementation of folic acid when planning a pregnancy (ideally for at least four weeks before conception and 12 weeks after conception). The dose of folic acid should either be a low dose of 800 mcg per day, or a high dose of 5 mg per day, depending on the perceived risk of having a NTD affected pregnancy.[7]

4.6.3 Smoking, alcohol and substance use

Cigarette smoking, alcohol consumption and substance use during pregnancy can have serious fetal and neonatal consequences and should be stopped before conception. Paternal tobacco smoking pre-conception has been associated with sperm DNA damage and increased risk of malignancy in their children. [8-12]

Counselling and pharmacotherapy should be considered for either or both parents when relevant. Advice to women that there is no known safe level of alcohol consumption during pregnancy is appropriate.

4.6.4 Travel and environmental risks

Couples planning pregnancy should consider any environmental risks when travelling.

Steps should be taken to reduce the chance of infection at the time of conception and during the remainder of the pregnancy by:

i. Avoiding travel to affected areas while attempting conception
ii. For advice on considerations while traveling overseas please refer to DFAT website

4.7 Healthy environment

Assessment of the risk of exposure to toxins or radiation in the household, work place or at recreational activity and discussion to minimise the exposure is worthwhile.

4.8 Investigations

Further assessment should be guided by the findings on history and examination.

Patients should receive advice with respect to where and when to attend in early pregnancy and may wish to have their options of antenatal care discussed.

5. References

1. Women's and Children's Health Network GoSA. Nutrition for Pregnancy and Breastfeeding 2014. Available from: https://www.wch.sa.gov.au/patients-visitors/women/care-and-support/nutrition-for-women/nutrition-resources-for-women#pregnancy-and-breastfeeding.
2. NZ Ministry of Health. Food and Nutrition Guidelines for Healthy Pregnant and Breastfeeding Women: A background paper2008. Available from: http://www.health.govt.nz/publication/food-and-nutrition-guidelines-healthy-pregnant-and-breastfeeding-women-background-paper.
3. Wu LL, Norman RJ, Robker RL. The impact of obesity on oocytes: evidence for lipotoxicity mechanisms, Reprod Fertil Dev. 2011;24(1):29-34.
4. Robker RL. Evidence that obesity alters the quality of oocytes and embryos, Pathophysiology. 2008;15(2):115-21.
5. Lassi ZS, Imam AM, Dean SV, Bhutta ZA. Preconception care: caffeine, smoking, alcohol, drugs and other environmental chemical/radiation exposure, Reprod Health. 2014;11 Suppl 3:S6.
6. National Health and Medical Research Council. Iodine supplementation for Pregnant and Breastfeeding Women: Public statement. 2010.
7. New Zealand Ministry of Health. Folate/folic acid. Oct 2013. Available from: http://www.health.govt.nz/our-work/preventative-health-wellness/nutrition/folate-folic-acid#preganancy.
8. Ji BT, Shu XO, Linet MS, Zheng W, Wacholder S, Gao YT, et al. Paternal cigarette smoking and the risk of childhood cancer among offspring of nonsmoking mothers, J Natl Cancer Inst. 1997;89(3):238-44.
9. Chang JS, Selvin S, Metayer C, Crouse V, Golembesky A, Buffler PA. Parental smoking and the risk of childhood leukemia, Am J Epidemiol. 2006;163(12):1091-100.
10. Rudant J, Menegaux F, Leverger G, Baruchel A, Lambilliotte A, Bertrand Y, et al. Childhood hematopoietic malignancies and parental use of tobacco and alcohol: the ESCALE study (SFCE), Cancer Causes Control. 2008;19(10):1277-90.
11. Huncharek M, Kupelnick B, Klassen H. Paternal smoking during pregnancy and the risk of childhood brain tumors: results of a meta-analysis, In Vivo. 2001;15(6):535-41.
12. Sorahan T, Lancashire RJ, Hulten MA, Peck I, Stewart AM. Childhood cancer and parental use of tobacco: deaths from 1953 to 1955, Br J Cancer. 1997;75(1):134-8.
13. National Health and Medical Research Council. NHMRC additional levels of evidence and grades for recommendations for developers of guidelines. Canberra2009.

6. Other suggested reading

Routine antenatal assessment in the absence of pregnancy complications (C-Obs 03b)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Routine-antenatal-assessment-in-the-absence-of-pregnancy-complications-(C-Obs-3b)_2.pdf?ext=.pdf
Vitamin and mineral supplementation in pregnancy (C-Obs 25)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Vitamin-and-mineral-supplementation-in-pregnancy-(C-Obs-25).pdf?ext=.pdf
Pre-pregnancy and pregnancy related vaccinations (C-Obs 44)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Pre-pregnancy-and-Pregnancy-Related-Vaccinations-(C-Obs-44)_1.pdf?ext=.pdf

Influenza vaccination during pregnancy (C-Obs 45)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Influenza-vaccination-in-pregnancy-(C-Obs-45)-Review-March-2017.pdf?ext=.pdf
Testing of serum TSH levels in pregnant women (C-Obs 46)
https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Testing-for-hypothyroidism-during-pregnancy-with-serum-TSH-(C-Obs-46)-Review-July-2015.pdf?ext=.pdf
Management of obesity in pregnancy (C-Obs 49)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Management-of-obesity-(C-Obs-49)-Review-March-2017.pdf?ext=.pdf
Women and smoking (C-Gen 53)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Smoking-and-pregnancy-(C-Obs-53).pdf?ext=.pdf
Evidence-based medicine, obstetrics and gynaecology (C-Gen 15)
https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical%20-%20General/Evidence-based-medicine,-Obstetrics-and-Gynaecology-(C-Gen-15)-Review-March-2016.pdf?ext=.pdf

7. Patient information

A range of RANZCOG Patient Information Pamphlets can be ordered via:
https://www.ranzcog.edu.au/Womens-Health/Patient-Information-Guides/Patient-Information-Pamphlets

Appendices

Appendix A Women's Health Committee Membership

Name	Position on Committee
Professor Yee Leung	Chair and Board Member
Dr Gillian Gibson	Deputy Chair, Gynaecology
Dr Scott White	Deputy Chair, Obstetrics and Subspecialties Representative
Dr Jared Watts	Member and EAC Representative
Dr Kristy Milward	Member and Councillor
Dr Will Milford	Member and Councillor
Dr Frank O'Keeffe	Member and Councillor
Professor Sue Walker	Member
Dr Roy Watson	Member and Councillor
Dr Susan Fleming	Member and Councillor
Dr Sue Belgrave	Member and Councillor
Dr Marilyn Clarke	ATSI Representative
Associate Professor Kirsten Black	Member
Dr Thangeswaran Rudra	Member
Dr Nisha Khot	Member and SIMG Representative
Dr Judith Gardiner	Diplomate Representative
Dr Angela Brown	Midwifery Representative, Australia
Ms Adrienne Priday	Midwifery Representative, New Zealand
Ms Ann Jorgensen	Community Representative
Dr Ashleigh Seiler	Trainee Representative
Dr Leigh Duncan	Maori Representative
Prof Caroline De Costa	Co-opted member (ANZJOG member)
Dr Christine Sammartino	Observer

Appendix B Overview of the development and review process for this statement

i. Steps in developing and updating this statement

This statement was originally developed in July 1992 and was most recently reviewed in November 2021. The Women's Health Committee carried out the following steps in reviewing this statement:

- Declarations of interest were sought from all members prior to reviewing this statement.
- Structured clinical questions were developed and agreed upon.
- An updated literature search to answer the clinical questions was undertaken.
- At the September 2021 teleconference, the existing consensus-based recommendations were reviewed and updated (where appropriate) based on the available body of evidence and clinical expertise. Recommendations were graded as set out below in Appendix B part iii)

ii. Declaration of interest process and management

Declaring interests is essential in order to prevent any potential conflict between the private interests of members, and their duties as part of the Women's Health Committee.

A declaration of interest form specific to guidelines and statements was developed by RANZCOG and approved by the RANZCOG Board in September 2012. The Women's Health Committee members were required to declare their relevant interests in writing on this form prior to participating in the review of this statement.

Members were required to update their information as soon as they become aware of any changes to their interests and there was also a standing agenda item at each meeting where declarations of interest were called for and recorded as part of the meeting minutes.
There were no significant real or perceived conflicts of interest that required management during the process of updating this statement.

iii. Grading of recommendations

Each recommendation in this College statement is given an overall grade as per the table below, based on the National Health and Medical Research Council (NHMRC) Levels of Evidence and Grades of Recommendations for Developers of Guidelines.[13] Where no robust evidence was available but there was sufficient consensus within the Women's Health Committee, consensus-based recommendations were developed or existing ones updated and are identifiable as such. Consensus-based recommendations were agreed to by the entire committee. Good Practice Notes are highlighted throughout and provide practical guidance to facilitate implementation. These were also developed through consensus of the entire committee.

Recommendation category		Description
Evidence-based	A	Body of evidence can be trusted to guide practice
	B	Body of evidence can be trusted to guide practice in most situations
	C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
	D	The body of evidence is weak and the recommendation must be applied with caution
Consensus-based		Recommendation based on clinical opinion and expertise as insufficient evidence available
Good Practice Note		Practical advice and information based on clinical opinion and expertise

Appendix C Full Disclaimer

Purpose

This Statement has been developed to provide general advice to practitioners about women's health issues concerning pre-pregnancy counselling and should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any person. It is the responsibility of each practitioner to have regard to the particular circumstances of each case. Clinical management should be responsive to the needs of the individual person while providing pre-pregnancy counselling and the particular circumstances of each case.

Quality of information

The information available in pre-pregnancy counselling (C-Obs 3a) is intended as a guide and provided for information purposes only. The information is based on the Australian/New Zealand context using the best available evidence and information at the time of preparation. While the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) had endeavoured to ensure that information is accurate and current at the time of preparation, it takes no responsibility for matters arising from changed circumstances or information or material that may have become subsequently available. The use of this information is entirely at your own risk and responsibility.

For the avoidance of doubt, the materials were not developed for use by patients, and patients must seek medical advice in relation to any treatment. The material includes the views or recommendations of third parties and does not necessarily reflect the views of RANZCOG or indicate a commitment to a particular course of action.

Third-party sites

Any information linked in this Statement is provided for the user's convenience and does not constitute an endorsement or a recommendation or indicate a commitment to a particular course of action of this information, material, or content unless specifically stated otherwise. RANZCOG disclaims, to the maximum extent permitted by law any responsibility and all liability (including without limitation, liability in negligence) to you or any third party for inaccurate, out of context, incomplete or unavailable information contained on the third- party website, or for whether the information contained on those websites is suitable for your needs or the needs of any third party for all expenses, losses, damages and costs incurred.

Exclusion of liability

The College disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) to you or any third party for any loss or damage which may result from your or any third party's use of or reliance of this guideline, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable for all expenses, losses, damages, and costs incurred.

Exclusion of warranties

To the maximum extent permitted by law, RANZCOG makes no representation, endorsement or warranty of any kind, expressed or implied in relation to the materials within or referred to throughout this guideline being in any way inaccurate, out of context, incomplete or unavailable for all expenses, losses, damages and costs incurred.

These terms and conditions will be constructed according to and are governed by the laws of Victoria, Australia

Version	Date of Version	Pages revised / Brief Explanation of Revision
v1.1	Jul / 1992	WHC
v2.1	Jun / 1998	WHC
v3.1	Jun / 2002	WHC
v4.1	Feb/2003	WHC
v5.1	Mar/2004	WHC
v6.1	Nov/2006	WHC
v7.1	Jun/2008	WHC
v8.1	Nov/2009	WHC (Title of statement changed)
v9.1	Nov/2012	WHC
v10.1	Jul/2014	WHC (April 2015 – Updated WHC)
v11.1	Jul/2017	WHC

Policy Version:	Version 12.1
Policy Owner:	Women's Health Committee
Policy Approved by:	RANZCOG Council/Board
Review of Policy:	Nov / 2026