



**The Royal Australian and New Zealand College of Obstetricians and Gynaecologists**  
*Excellence in Women's Health*

## 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: July 2017**

**Review due: July 2020.**

**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.

**Funding:** The development and review of this statement was funded by RANZCOG.

### 1. Patient summary

A woman's health prior to conception is critical to the outcome of her pregnancy and may have a life-long impact on her baby'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
<p><b>Medical history</b>                      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.</p>	Consensus-based recommendation
Recommendation 2	Grade
<p><b>Reproductive carrier screening</b>                      If there is a high risk of a chromosomal or genetic disorder 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 carrier screening, preimplantation genetic diagnosis, prenatal diagnosis and postnatal management.</p>	Consensus-based recommendation
Recommendation 3	Grade
<p><b>Vaccinations</b>                      Vaccination history for 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.</p>	Consensus-based recommendation

Recommendation 4	Grade
<p><b>Lifestyle recommendations</b></p> <p><i>Healthy weight</i> Active steps to correct high BMI (dietary, exercise and where appropriate consideration of bariatric surgery) prior to a pregnancy should be recommended.</p> <p><i>Supplementation</i> 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 &gt;35), a 5mg daily dose should be used.</p> <p><i>Substance use</i> 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</p>	<p>Consensus-based recommendation</p>

### 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 general 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, 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.

#### 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.

If there is a **high risk** of a chromosomal or genetic disorder 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 carrier screening, preimplantation genetic diagnosis, prenatal diagnosis and postnatal management.

Women should be made aware of the availability of screening of **low risk** women for carrier status of the more common genetic conditions (e.g. cystic fibrosis, spinal muscular atrophy, fragile X syndrome) may be offered. A number of genetic carrier screening programs exist within Australasia (or are readily accessible from overseas), but currently these are generally not funded by the public health system (i.e. accessible only on a user pays basis). Women considering whether to have the test should be appropriately informed of the benefits and limitations of testing, and any associated costs.

*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 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 [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. 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].

##### 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 0.4 mg 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 >35), a 5 mg daily dose should be used.

The NHMRC recommends women should start a dietary supplementation of 150 mcg 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 iodine 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 consequences for an unborn child 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. In relation to the Zika virus, if avoiding travel is not possible, couples should take all precautions to prevent mosquito bites and use condoms consistently and correctly when having sex in that country. This includes condom use for vaginal, anal and oral sex.

#### 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**

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2. NZ Ministry of Health. Food and Nutrition Guidelines for Healthy Pregnant and Breastfeeding Women: A background paper 2008. Available from: <http://www.health.govt.nz/publication/food-and-nutrition-guidelines-healthy-pregnant-and-breastfeeding-women-background-paper>.
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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.
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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. Canberra 2009.

## 6. Other suggested reading

Routine antenatal assessment in the absence of pregnancy complications (C-Obs 03b)

[https://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Routine-Antenatal-Assessment-\(C-Obs-3\(b\)\)-Review-July-2016.pdf?ext=.pdf](https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Routine-Antenatal-Assessment-(C-Obs-3(b))-Review-July-2016.pdf?ext=.pdf)

Vitamin and mineral supplementation in pregnancy (C-Obs 25)

[https://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Vitamin-and-mineral-supplementation-in-pregnancy-\(C-Obs-25\)-Review-Nov-2014,-Amended-May-2015.pdf?ext=.pdf](https://www.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)-Review-Nov-2014,-Amended-May-2015.pdf?ext=.pdf)

Pre-pregnancy and pregnancy related vaccinations (C-Obs 44)

[https://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Pre-pregnancy-and-Pregnancy-Related-Vaccinations-\(C-Obs-44\)-Review-Mar14.pdf?ext=.pdf](https://www.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)-Review-Mar14.pdf?ext=.pdf)

Influenza vaccination during pregnancy (C-Obs 45)

[https://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Influenza-vaccination-in-pregnancy-\(C-Obs-45\)-Review-Nov13.pdf?ext=.pdf](https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Influenza-vaccination-in-pregnancy-(C-Obs-45)-Review-Nov13.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](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://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/C-Obs\\_49\\_Management-of-Obesity-in-Pregnancy-Review-Sep-2013.pdf?ext=.pdf](https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/C-Obs_49_Management-of-Obesity-in-Pregnancy-Review-Sep-2013.pdf?ext=.pdf) Women and smoking (C-Gen 53) [https://www.ranzcog.edu.au/RANZCOG\\_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Women-and-Smoking-\(C-Obs-53\)-Review-November-2014.pdf?ext=.pdf](https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Women-and-Smoking-(C-Obs-53)-Review-November-2014.pdf?ext=.pdf)

Evidence-based medicine, obstetrics and gynaecology (C-Gen 15)

[https://www.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](https://www.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
Dr Joseph Sgroi	Deputy Chair, Gynaecology
Associate Professor Janet Vaughan	Deputy Chair, Obstetrics
Professor Susan Walker	Member
Associate Professor Lisa Hui	Member
Associate Professor Ian Pettigrew	EAC Representative
Dr Tal Jacobson	Member
Dr Ian Page	Member
Dr John Regan	Member
Dr Craig Skidmore	Member
Dr Bernadette White	Member
Dr Scott White	Member
Associate Professor Kirsten Black	Member
Dr Greg Fox	College Medical Officer
Dr Marilyn Clarke	Chair of the ATSI WHC
Dr Martin Byrne	GPOAC Representative
Ms Catherine Whitby	Community Representative
Ms Sherryn Elworthy	Midwifery Representative
Dr Amelia Ryan	Trainee Representative

### 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 July 2017. 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 June 2017 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.<sup>13</sup> 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

This information is intended to provide general advice to practitioners, 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 patient.

This information has been prepared having regard to general circumstances. 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 patient and the particular circumstances of each case.

This information has been prepared having regard to the information available at the time of its preparation, and each practitioner should have regard to relevant information, research or material which may have been published or become available subsequently.

Whilst the College endeavours 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.