



**Preconception care in general practice**

Why, When and How?

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**RACGP Guidelines for preventive activities in general practice (Red Book)**

*Every woman of reproductive age should be considered for preconception care. This consists of interventions that aim to identify and modify biomedical, behavioural and social risks to a woman's health or pregnancy outcome through prevention and management.*



RACGP | Guidelines for preventive activities in general practice  
9th edition

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**Why is preconception health important?**



- Genes are sensitive to the environment
- Sub-optimal preconception conditions can cause epigenetic changes in eggs and sperm
- Epigenetic changes can affect the baby's health at birth and into adulthood
- Parents can improve the odds of their children having good health by optimising their own health before conception

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### Why is preconception health promotion needed?

- Parenthood is a life goal for most people
- Parents want and expect a healthy baby
- 35% pregnancies are 'unplanned'

Hewitt et al, 2010



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### When is preconception?

- For fertile women and men, any time during the reproductive years
- For people using ART, the months leading up to treatment
- Centers for Disease Control and Prevention (CDC) guidelines:  
*As part of primary care visits, provide risk assessment and educational and health promotion counselling to all women [and men] of childbearing age to reduce reproductive risks and improve pregnancy outcomes.*

[cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm](http://cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm)

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### Opportunistic conversations about preconception health

- Reproductive health consultations
  - cervical cancer screening test
  - contraceptive advice
  - STI check
- Other consultations
  - health checks
  - immunisation



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## Barriers

- **Provider level**
  - unfavourable attitude
  - lack of knowledge of PCC
  - not working in the field of O&G
  - lack of clarity re responsibility for PCC
- **Client level**
  - not contacting a healthcare provider preconception
  - negative attitude
  - lack of knowledge of PCC
- **Organisational and societal level**
  - lack of time
  - lack of tools
  - lack of guidelines
  - no reimbursement

Goossens J, et al. Barriers and facilitators to the provision of preconception care by healthcare providers: A systematic review. *Int J Nurs Stud.* 2018;87:113-30.

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## The Australian context

### Knowledge, attitudes and practices relating to fertility among nurses working in primary health care

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*Australian Journal of Primary Health*  
<http://dx.doi.org/10.1071/PJ19078>

Research

### Survey of Maternal, Child and Family Health Nurses' attitudes and practice relating to preconception health promotion

Karin Hammarberg<sup>1,2</sup> and Leanne Taylor<sup>3</sup>

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**CSIRO PUBLISHING**  
*Australian Journal of Primary Health*  
<http://dx.doi.org/10.1071/PJ19069>

Research

### Men's preconception health care in Australian general practice: GPs' knowledge, attitudes and behaviours

Kirsten Hogg<sup>1,2</sup>, Taleha Rizio<sup>3</sup>, Ramesh Manocha<sup>4</sup>, Robert I. McLachlan<sup>1,2,5</sup> and Karin Hammarberg<sup>1,2</sup>

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## These studies show

### Primary care providers

- Believe it's their role to promote preconception health
- Don't do it routinely
- Worry about bringing up the subject
- Feel they don't know enough
- Want more education
- Want resources to share with patients

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## Enablers

- People don't mind being asked about pregnancy plans
- Educational resources for primary care providers
- Resources to share with patients
- Clinical practice tips on how to routinely ask about pregnancy plans



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## People don't mind being asked

- Population study of >700 people of reproductive age
- Three in four (74%) stated that they would not mind if their GP asked them about their pregnancy intentions

RESEARCH ARTICLE

Open Access

Acceptability of screening for pregnancy intention in general practice: a population survey of people of reproductive age

Karin Hammarberg<sup>1,2\*</sup>, Julie Hassard<sup>1</sup>, Renee de Silva<sup>1</sup> and Louise Johnson<sup>1</sup>

### Abstract

**Background:** Optimal pre-conception health benefits reproductive outcomes. However, pre-conception health promotion is not routinely offered in primary health care settings to people of reproductive age. The aim

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## Clinical practice tips

- Inspired by the 'One Key Question' initiative in the US
- Asking about pregnancy intention
- If 'yes' or 'maybe' - offer preconception health check
- If 'no' - discuss reliable contraception

Stranger Hunter, M. (2017). "Would you like to become pregnant in the next year? The One Key Question® Initiative in the United States." *International Journal of Birth and Parent Education* 4(4): 19-22.



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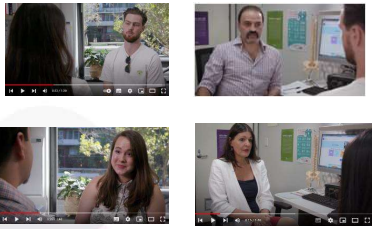
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### Clinical practice tips



#### Planting the seed – asking about pregnancy plans

This is a guide for asking patients of reproductive age about their pregnancy plans so you can help them either prevent an unplanned pregnancy or conceive a healthy child when the time is right for them.

**Do you want to try for a baby in the next year?**

NO	UNCLEAR/NAIVE	YES
<p>The consultation should be a good opportunity to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p>	<p>The consultation should be a good opportunity to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p>	<p>The consultation should be a good opportunity to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p> <p>It is important to discuss the patient's reproductive goals, and if they are unclear, you may be able to help them clarify their goals.</p>

**Pre-conception health checklist**

- **Age** – Advise that age affects fertility
- **Pregnancy history** – Screen for modifiable risk factors
- **Weight** – Measure BMI and counsel if under or over-weight
- **Diet** – Provide advice on a healthy diet, and folic acid and iodine supplementation for women
- **Alcohol, smoking and drug use** – Assess intake and provide appropriate advice
- **Genetic screening** – Discuss reproductive carrier screening
- **Medical conditions** – Review current conditions and associated medications that can impact pregnancy (refer to specialist if required)
- **Sexually Transmitted Infections (STIs)** – Screen for STIs
- **Vaccinate as required** – (Measles, mumps, rubella, varicella zoster, hepatitis B)
- **Environmental** – Assess work, home and recreational environments and discuss TORCH infections
- **Psychosocial aspects** – Screen for domestic violence and mental health conditions
- **Breast examination and cervical screen**
- **Dental health** – Recommend a dental health check.

www.yourfertility.org.au

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### Preconception care checklist

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### Common preconception risk factors to look out for

- Obesity
- Alcohol use
- Smoking
- Micronutrient deficiency



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## Overweight and obesity

- Multifactorially determined
- Stigmatised condition
- Associated with
  - longer time to pregnancy
  - infertility
  - pregnancy complications\*
  - epigenetic changes predisposing child to obesity
  - lower chance of success with ART



\*Cheney, K., et al. (2018). "Population attributable fractions of perinatal outcomes for nulliparous women associated with overweight and obesity, 1990-2014." Medical Journal of Australia 208(3): 119-125.

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## A wake-up call for preconception health

*The rise in obesity among women of reproductive age has been the most pressing 'wake-up call' to improve preconception health. Obesity (BMI  $\geq 30$ ), which affects over one in five (21.6%) pregnant women in the UK, is strongly linked to almost all adverse pregnancy and birth outcomes, notably pre-eclampsia, gestational diabetes, and stillbirth, and has lasting consequences for the health of the offspring. Unfortunately, attempts to tackle the problem through diet and physical activity interventions starting in pregnancy have had negligible effect on immediate and later outcomes. **Together, these findings call for a new focus on improving health before conception.***

Stephenson J, et al. A wake-up call for preconception health: a clinical review. Br J Gen Pract. 2021;71(706):233.

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## What advice to give?

- Be supportive
- Choose language carefully
- Set SMART goals
  - S – specific
  - M – measurable
  - A – achievable
  - R – realistic
  - T – time specific



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## Alcohol use



- NHMRC guidelines  
*'To prevent harm from alcohol to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol.'*
- FASD Hub Australia  
*'There is still a lot that we don't know about how alcohol affects sperm, so the safest option is for both parents to avoid alcohol when trying for a baby.'*

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## Fetal Alcohol Spectrum Disorder (FASD)

*FASD is a diagnostic term for severe neurodevelopmental impairments (you may see these as difficulties with physical activities, language, memory, learning and behaviour) that result from brain damage caused by alcohol exposure before birth.*



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## Foundation for Alcohol Research and Education



[everymomentmatters.org.au](http://everymomentmatters.org.au)

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## Smoking

- >1000 toxic substances affect all aspects of reproduction
- Passive smoking almost as harmful
- Increases risk of infertility and time to pregnancy
- Reduces chance of ART success
- Increases risk of pregnancy complications
- Adverse effects on baby's health



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## Quit advice

- No safe limit
- Effects of smoking reversible
- QUIT at least a few months before trying to conceive
- QUIT together
- Help is available



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## Vitamin and mineral (micronutrient) supplements

- Folic acid
  - 500 micrograms daily
  - starting at least one month before conception until end of first trimester
  - eliminates 7 out of 10 cases of neural tube defects (NTD)
- Iodine
  - 150 micrograms daily
  - start pre pregnancy and continue until ceasing breastfeeding
- Zinc and Selenium
  - reduce damage caused by free radicals and improve sperm quality

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## Studies on preconception health

### UK study of 1174 pregnant women

- 73% clearly planned pregnancy
- 51% (63% of planners) took folic acid pre pregnancy
- 21% smoked, 61% consumed alcohol in the 3 months pre pregnancy
- 48% of smokers, 41% of drinkers stopped or reduced pre pregnancy
- 51% saw health professional before pregnancy
  - 2.34 times more likely to take folic acid
  - 2.18 times more likely to adopt healthy diet

Stephenson et al, How Do Women Prepare for Pregnancy? Preconception Experiences of Women Attending Antenatal Services and Views of Health Professionals, PLOS One, 2016

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## Australian women's preconception health

### 412 women completed questionnaire in early pregnancy

- 56% took folic acid
- 53% had preconception health check
- 30% overweight or obese pre pregnancy
- 45% of overweight/obese women lost weight before pregnancy
- 16% of obese women categorised themselves as obese

Callaway et al, Barriers to addressing overweight and obesity before conception, MJA, 2009

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## Conclusion

*The critical first step is screening women [and men!] for their pregnancy intentions and initiating conversations about optimising health before conception or discussing effective contraceptive options.*



Dorney E, Black K. Preconception care. Australian Journal for General Practitioners. 2016;47:424-9.

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# Resources

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## Educational resources for primary care providers

- Dorney et al. papers in AJGP




### Preconception care

**Abstract**  
Preconception care (PCC) addresses the health of women and their partners prior to pregnancy, to minimize the risk of congenital disease in children. PCC involves a range of strategies including reproductive planning and the use of effective contraception.

**Background**  
Preconception care (PCC) addresses the health of women and their partners prior to pregnancy, to minimize the risk of congenital disease in children. PCC involves a range of strategies including reproductive planning and the use of effective contraception.

### Interconception care



**Abstract**  
Interconception care involves the active coordination of treatment of the primary pregnancy or pregnancy of choice. In the interim, it is essential to ensure that the health of the woman and her partner is maintained.

**Background**  
The importance of interconception care is highlighted by the high prevalence of adverse pregnancy outcomes.

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## Educational resources for primary care providers

- Online learning modules
  - [Jean Hailes for Women's Health](#)
  - [APNA](#)
  - [Healthy Male](#)



CPD Accredited Activity  
40 points



ACRM PDP ACCREDITED ACTIVITY  
2020 - 2022



Fertility, infertility and preconception



Preconception Health Promotion in Primary Care



HEALTHY MALE  
Generations of healthy Australian men

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**Resources to share with patients**

**Your Fertility**

How to improve your chance of pregnancy and having a healthy baby

**Thinking about having a baby?**  
Most people want to become parents one day

Fertility is the ability to have a baby. Many things can affect women's and men's fertility, including their age, when they have sex, how healthy they are, and whether they have any medical conditions.

4 ways to improve your chance of getting pregnant and having a healthy baby

**Pre-conception checklist for women**

There are many things you can do to improve your chance of conceiving a healthy baby. Here's a list of proven ways to get your body ready for pregnancy.

- Manage your weight
- Get into a good exercise routine
- Eat well

**Parenting from before conception**

How you eat, drink, take medicine and think of your body and mind before and after you get pregnant can have a big impact on your baby's health. Here are some ways to get your body ready for pregnancy.

**Healthy conception tool**

Enter your details below to find out where you can make some changes to improve your chances of pregnancy.

**JEAN HAILES TOOLS**

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**Thank you**

Visit [jeanhailes.org.au](http://jeanhailes.org.au) for more resources, tools, webinars and articles

**Jean Hailes** **Your Fertility**

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**Jean Halies health professional resources**

**Health professional tools:**

- Endometriosis **tool**
- Polycystic ovary syndrome (PCOS) **tool**
- Menopause **tool**
- Heavy menstrual bleeding (HMB) **tool**

**Health professional education:**

- e-learning courses:**
  - Fertility, infertility and preconception
  - Managing menopause
  - Diagnosis and management of PCOS
- Webinars:**
  - Postnatal depression & anxiety: responding to risks
  - Ask an expert: menopause management
  - Let's talk about sex: midlife sexual function
  - What's new: the use of testosterone in women

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