## Let's talk periconception health care with men

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Future fathers are often forgotten in reproductive healthcare consultations. Starting conversations early about their vital role before and during pregnancy can have far-reaching benefits for men, their partners and their children.

en's physical and mental health matters for fertility, pregnancy and the health of offspring, yet their involvement in reproductive health discussions is low.

#### Why periconception matters to men Physical health

A healthy paternal lifestyle before conception is linked to both optimal sperm production and child development. In contrast, preconception smoking, alcohol consumption, poor nutrition and insufficient vitamin intake in fathers have been associated with a range of problems, from reduced fertility and risk of miscarriage to outcomes in children that can include birth defects, leukaemia and heart disease.<sup>1-4</sup>



MedicineToday 2021; 22(9): 71-73

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During pregnancy, a father's diet, exercise and substance use can influence the mother's decisions about self-care and so may indirectly affect the environment of the developing fetus.<sup>5</sup> A father's lifestyle behaviour is also a window into the child's future developmental environment and the man's own future health risk. For these reasons, a healthy periconception lifestyle has a triple dividend, benefiting the father, mother and child.<sup>6</sup>

#### Mental health

Pregnancy and the early period of fatherhood are also times of increased mental health risk for men.<sup>7</sup> Past mental health problems are the strongest known predictors of men's mental health during pregnancy. In one longitudinal study, men with a history of depression or anxiety symptoms that spanned adolescence and young adulthood were four times more likely than those with no such symptoms to have mental health problems during their partner's pregnancy.<sup>8</sup>

Men's preconception mental health is also related to their postpartum mental health, the strength of the bonds they form with their infants and their partner's risk of postnatal depression.<sup>9-11</sup> Depression in men often presents with increased levels of anger and externalised behaviours, so it can be of concern for the safety of their partners and children.<sup>12</sup> As with physical health, there is potential for a triple dividend from detecting and intervening in men's periconception mental health risks.

#### **Barriers to engaging men**

Despite the potential benefits, and even in the context of increasingly active involvement of men during pregnancy and the early lives of children, healthcare consultations with men are unlikely

#### 1. TEN PRECONCEPTION ACTION POINTS FOR MEN\*

- 1. Make a plan and take action
- 2. Prevent and treat sexually transmitted diseases
- Stop smoking, using certain drugs and drinking excessive amounts of alcohol
- 4. Be careful about toxic substances
- 5. Prevent infertility
- 6. Reach and maintain a healthy weight
- 7. Learn your family history
- 8. Get help for violence
- 9. Get mentally healthy
- 10. Support your partner

\* Source: US Centers for Disease Control and Prevention. Before pregnancy: information for men, www.cdc.gov/preconception/men.html.<sup>13</sup>

to include discussions about reproductive planning and support. More than a decade ago in the USA, the Centers for Disease Control and Prevention (CDC) expanded its focus on preconception care advice to include advice for men (Box 1). This move formally recognised the vital contributions of fathers to family health and development.<sup>13</sup>

In Australia, Healthy Male (formerly Andrology Australia) launched its Plus Paternal campaign in 2020 to improve access to health services for fathers. The extensive research and national consultation process behind the campaign concluded with evidence of a clear and urgent need to improve on the 'insufficient' knowledge of men about preconception, fertility, pregnancy, birth and early fatherhood, as well as a need to improve the knowledge of health professionals regarding how to support men in these areas. Both men and health professionals said they wanted more education and support. Motivation was clear, but barriers to supporting paternal preconception and antenatal health care remain.14

Such barriers include mother-centric reproductive care services and resources,

an inaccurate perception that men are not interested in reproductive care, restrictive masculine norms that result in reluctance to seek help and a stigma attached to help-seeking, particularly for mental health.<sup>15-17</sup> These barriers result in a circular process whereby healthcare professionals who are not educated in male periconception care ignore or bypass it in consultations with men, thereby reinforcing men's beliefs that this is women's business and that the father's role is peripheral to the mother's.

#### **Opportunities for change**

There are other barriers too. An obvious one is that men of normative reproductive age are less likely than women, or than men at other ages, to attend GP consultations.<sup>18,19</sup> Another is that consultation times, including for pregnancy check-ups, are often during traditional working hours, when many men find it difficult to attend. Although it might once have been said that these barriers would take decades to overcome, the rapid expansion of telehealth infrastructure in response to the COVID-19 pandemic may present an opportunity to include men in antenatal consultations they might otherwise have missed.

#### healthcare professionals who are not educated in male periconception care ignore or bypass it ... reinforcing men's beliefs that this is women's business

We might also look to long-term solutions to these barriers. For instance, in consultations with adolescent boys and their parents, a seed can be planted about the important consequences for future generations of healthy living and mental health care. Such consultations may be a rare opportunity to flag the importance of future ongoing check-ups. Part of this communication involves shifting the notion in young men that their health is solely about

#### 2. USEFUL PERICONCEPTION RESOURCES

- US Centers for Disease Control and Prevention, Before pregnancy: information for men: www.cdc.gov/preconception/men.html
- Dads Group: www.dadsgroup.org
- MensLine Australia, Being a dad: mensline.org.au/being-a-dad
- Healthy Male, Male infertility: www.healthymale.org.au/menshealth/male-infertility
- Plus Paternal: a focus on fathers: www.healthymale.org.au/resourcestools/current-research-studiesprojects/plus-paternal-focus-fathers
- The clinical content of preconception care: preconception for men:<sup>20</sup> www.ajog.org/article/S0002-9378(08)02037-1/fulltext

their own self-care and that their risktaking confers risk only on themselves. A conversation about the future can broaden their understanding of self-care to include responsible care for others, and it may facilitate a healthy developmental transition from adolescence to adulthood. Although it might not matter to the adolescent boy at the time, the knowledge will be there for him in later years when its importance becomes clear.

### What should men's periconception care include?

In a periconception healthcare consultation with a man, what matters most will depend on the timing (preconception or during pregnancy) and the individual's risk. A risk assessment begins with a reproductive life plan that evaluates pregnancy intentions, resources and access to relevant health services. It also records family history and genetic risks, medical and mental health histories, social histories of risk behaviour, sexually transmitted diseases and lifestyle factors, including, weight, nutrition and stress.

Importantly, the consultation provides an opportunity to raise awareness of peer

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supports and male-specific services for prospective fathers (Box 2). Guidelines and resources specific to men are also available for healthcare providers (Box 2).<sup>16,20,21</sup> A risk of consultation during pregnancy is that singling out past behaviour can result in guilt and shame; as with genetic counselling, referral for ongoing psychological support may be warranted. Focusing on the future is likely to yield more positive outcomes. In line with the CDC advice (Box 1), GPs have an opportunity during the preconception stage to ask men about their life goals and encourage them to make a plan. Asking if children might be a part of their future, even if the likelihood is decades away, opens the door for a conversation about behavioural changes that can improve the quality of their sperm. Once a man is expecting a baby, his motivation to be a strong and healthy father can be leveraged with a message about physical preparation for the big event. Healthy habits in the postpartum period are more likely to be maintained if they are formed before the child's birth.

#### Conclusion

Men are motivated to engage with health services that prepare them to be good fathers, but many men report being ignored or sidelined in reproductive care, or they believe reproduction is women's business. Primary healthcare providers are likewise predominantly trained and resourced to support women's reproductive health. However, resources exist to support both men and healthcare providers to overcome barriers to male reproductive care. Supporting men's preconception and antenatal care can produce a triple dividend of benefit to the father's future health and the health and wellbeing of his partner and children. MT

#### References

A list of references is included in the online version of this article (www.medicinetoday.com.au).

COMPETING INTERESTS: None

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#### References

1. Barratt CLR, De Jonge CJ, Sharpe RM. 'Man Up': the importance and strategy for placing male reproductive health centre stage in the political and research agenda. Hum Reprod 2018; 33: 541-545.

2. Opuwari CS, Henkel RR. An update on oxidative damage to spermatozoa and oocytes. BioMed Res Int 2016; 2016: 9540142.

3. Jenkins TG, James ER, Alonso DF, et al. Cigarette smoking significantly alters sperm DNA methylation patterns. Andrology 2017; 5: 1089-1099.

4. Hoek J, Steegers-Theunissen R, Sinclair K, Schoenmakers S. The science of preconception. In: Shawe J, Steegers EAP, Verbiest S, eds. Preconception health and care: a life course approach. Switzerland (eBook): Springer Nature; 2020. p. 21-33.

5. Moos M-K. From concept to practice: reflections on the preconception health agenda. J Womens Health (Larchmt) 2010; 19: 561-567.

6. Patton GC, Olsson CA, Skirbekk V, et al. Adolescence and the next generation. Nature 2018; 554: 458-466.

 Cameron EE, Sedov ID, Tomfohr-Madsen LM. Prevalence of paternal depression in pregnancy and the postpartum: an updated meta-analysis. J Affect Disord 2016; 206: 189-203.

8. Spry E, Giallo R, Moreno-Betancur M, et al. Preconception prediction of expectant fathers' mental health: 20-year cohort study from adolescence. BJPsych Open 2018; 4(2): 58-60.

 Thomson KC, Romaniuk H, Greenwood CJ, et al. Adolescent antecedents of maternal and paternal perinatal depression: a 36-year prospective cohort.
Psychol Med 2020 Apr 28; 1-8. doi: 10.1017/S0033291720000902 [online ahead of print].

10. Macdonald JA, Greenwood C, Letcher P, et al. From adolescence to parenthood: a multi-decade study of preconception mental health problems and postpartum parent–infant bonds. Soc Psychiatry Psychiatr Epidemiol 2020 Oct 1. doi: 10.1007/s00127-020-01965-y [online ahead of print].

11. Paulson JF, Bazemore SD, Goodman JH, Leiferman JA. The course and interrelationship of maternal and paternal perinatal depression. Arch Womens

Ment Health 2016: 19: 655-663.

12. Macdonald JA, Greenwood CJ, Francis LM, et al. Profiles of depressive symptoms and anger in men: associations with postpartum family functioning. Front Psychiatry 2020; 11: 578114.

13. US Centers for Disease Control and Prevention. Before pregnancy: information for men. Atlanta: CDC; 2020. Available online at:

https://www.cdc.gov/preconception/men.html (accessed August 2021). 14. Healthy Male. Plus Paternal: a focus on fathers. Evidence for change. Melbourne: Healthy Male; 2020. Available online at: https://www.healthymale. org.au/resources-tools/current-research-studies-projects/plus-paternal/ evidence-for-change (accessed August 2021).

15. Garfield CF. Supporting fatherhood before and after it happens. Pediatrics 2015; 135: e528-e530.

16. Kotelchuck M, Lu M. Father's role in preconception health. Matern Child Health J 2017; 21: 2025-2039.

17. Macdonald JA, Graeme LG, Wynter K, et al. How are you sleeping? Starting the conversation with fathers about their mental health in the early parenting years. J Affect Disord 2021; 281: 727-737.

18. Swami N, Terhaag S, Quinn B, Daraganova G. Health literacy and health service use among Australian men. In: Daraganova G, Quinn B, eds. Insights #1: Findings from Ten to Men: The Australian Longitudinal Study on Male Health, 2013–16. Melbourne: Australian Institute of Family Studies; 2020, p. 63-82.

19. Australian Bureau of Statistics. Patient experiences in Australia: summary of findings, 2018–19. ABS cat. no. 4839.0. Canberra: ABS: 2019.

20. Frey KA, Navarro SM, Kotelchuck M, Lu MC. The clinical content of preconception care: preconception care for men. Am J Obstet Gynecol 2008; 199 (6 Suppl 2): S389-S395.

21. Roberts M. There from the start: men and pregnancy. Aust Fam Physician 2016; 45: 548-551.