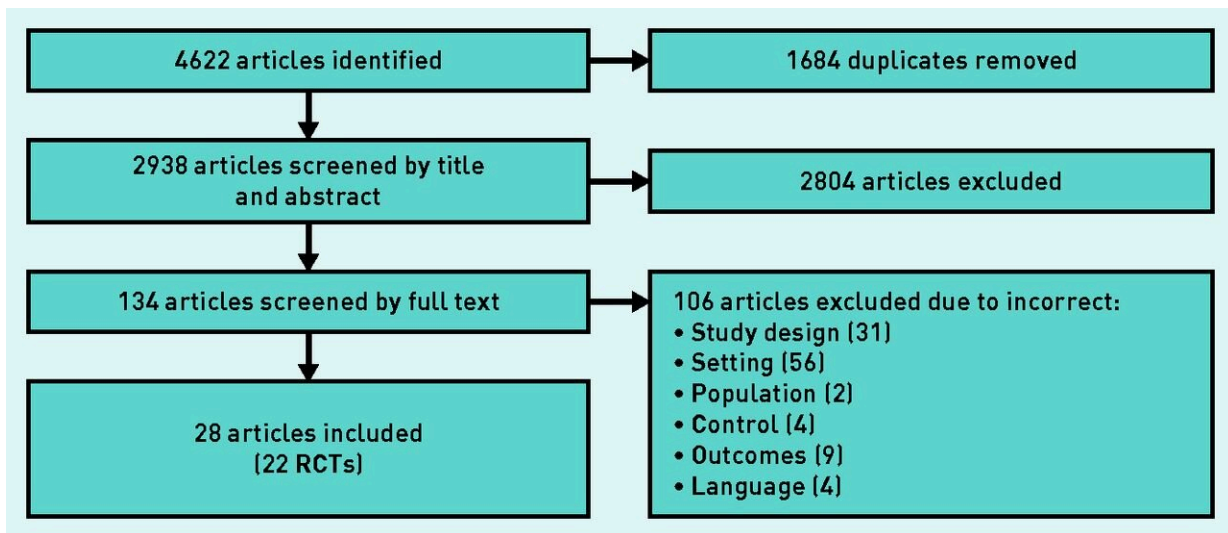


Family planning: Importance of preconception health

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PRISMA flow diagram for papers included in the review. RCT = randomized controlled trial. Credit: *British Journal of General Practice* (2022). DOI: 10.3399/BJGP.2022.0040

Optimizing health before pregnancy can improve health outcomes for both the mother and newborn baby.

However, not everyone is aware of the need for good health before [pregnancy](#)—they generally start thinking about this during pregnancy.

Modifiable risk factors including smoking and [excessive alcohol](#)

[consumption](#) during the preconception period impact both women's and men's reproductive health, and the quality of the reproductive cells—sperm and egg cells.

Preconception care involves providing education on preconception risk factors and recommendations such as taking folate before conception, ensuring any medication that's taken is safe for a future pregnancy, and addressing risk factors such as smoking and weight.

These can reduce the occurrence of adverse pregnancy outcomes such as [low birth weight](#), spontaneous abortion, and preterm birth.

As the first point of healthcare contact, primary care providers are ideally placed to provide preconception care. But even though there's evidence that preconception care interventions in community and hospital settings are known to reduce risk factors and improve pregnancy outcomes, their effectiveness is unclear.

Low priority, and women-focused

Preconception care is often a low priority and not routine practice in primary care in many countries, and almost all primary care-based preconception care interventions are directed towards women.

Our new SPHERE research (co-authored with GP Dr. Sonia Srinivasan and Professor Kirsten Black of the University of Sydney) has underlined the importance of good health before conception.

The Monash University-led [systematic review](#), published in the *British Journal of General Practice*, investigated how effective primary care-based preconception care interventions, including education, supplementary medication, and dietary modification, were in reducing risk factors and improving health.

Of the 28 studies eligible for inclusion in the review, only one was about men. Our paper says:

"Almost all primary care-based PCC interventions are directed towards women ... Since [modifiable risk factors](#) including smoking and [alcohol consumption](#) may also impact men's reproductive health and sperm quality, PCC directed towards reproductive-aged men may also improve pregnancy outcomes."

We found that that primary care-based preconception care—including brief and intensive education, supplementary medication, and dietary modification—is effective in improving health knowledge and reducing preconception risk factors such as alcohol consumption and smoking among females, even when delivered by trained non-healthcare professionals, but there was little evidence of the effect of preconception care on pregnancy outcomes.

In relation to diet, four papers reported that diet modifications were effective. In one, snacks made by a health worker—green, leafy vegetables, fruit and milk—eaten more than three months before conception, increased infant birth weight.

As our paper says: "... this may have resulted from higher micronutrients, energy and/or protein levels in the snack provided to the intervention group when compared to the control group."

Also, a diet including at least 100g of mushrooms daily from preconception until the 20th week of gestation reduced gestational hypertension, pre-eclampsia, gestational weight gain, excessive gestational weight gain and gestational diabetes.

In the other two articles, non-healthcare, professionally-trained facilitators delivered macronutrient supplementation from preconception

to term. This increased maternal protein, iron, zinc, folate, vitamin A and B12 . However, it didn't affect infant birthweight or infant growth up to 24 months of age.

Important for both men and women

Ours is the first review to consider the role of healthcare providers and the importance of preconception care for both women and men.

The findings highlight the need for more research to determine whether [primary care](#)-based preconception care can improve pregnancy outcomes, and to obtain more evidence about the possible benefits for men.

We hope this new review will help [primary care providers](#) in general practices (GPs, nurses) enhance their understanding of the effectiveness of preconception care, and their potential role in supporting women to optimize their health prior to pregnancy.

We also hope this research will raise awareness among reproductive-aged women and men of the importance of optimal health during the preconception period.

We urge those planning a pregnancy to talk with their GP about preconception health.

We think it's very important for reproductive-aged women and men to initiate the discussion about preconception care when they visit their GP, and ask for resources to help improve their knowledge.

More information: Nishadi N Withanage et al, Effectiveness of preconception interventions in primary care: a systematic review, *British Journal of General Practice* (2022). [DOI: 10.3399/BJGP.2022.0040](https://doi.org/10.3399/BJGP.2022.0040)

Provided by Monash University

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