

The Cycle Study

Research overview

Gestational (pregnancy) diabetes affects almost 10% of pregnancies and increases the risk of a number of health issues for both the mother and her baby. These risks include complications with delivery and increased risk of the offspring developing type 2 diabetes later in life. In addition, women who have gestational diabetes are at high risk of developing the condition again in future pregnancies.

For these reasons, The Cycle Study investigated whether regular cycling exercise during pregnancy could prevent the recurrence of gestational diabetes in women with a history of the condition in a previous pregnancy. Women volunteering for the study were allocated at random to either continue with their normal pregnancy routine, or have a stationary bicycle delivered to their home at 14 weeks of pregnancy. These women who had been randomised to the exercise intervention were visited three times each week by an exercise physiologist to supervise their cycling sessions until 28 weeks of pregnancy,

when all women were tested for the recurrence of gestational diabetes. This exercise program was designed to overcome many of the barriers to exercise during pregnancy by allowing women to exercise in the comfort of their own home and also avoid issues related to travelling and childcare.

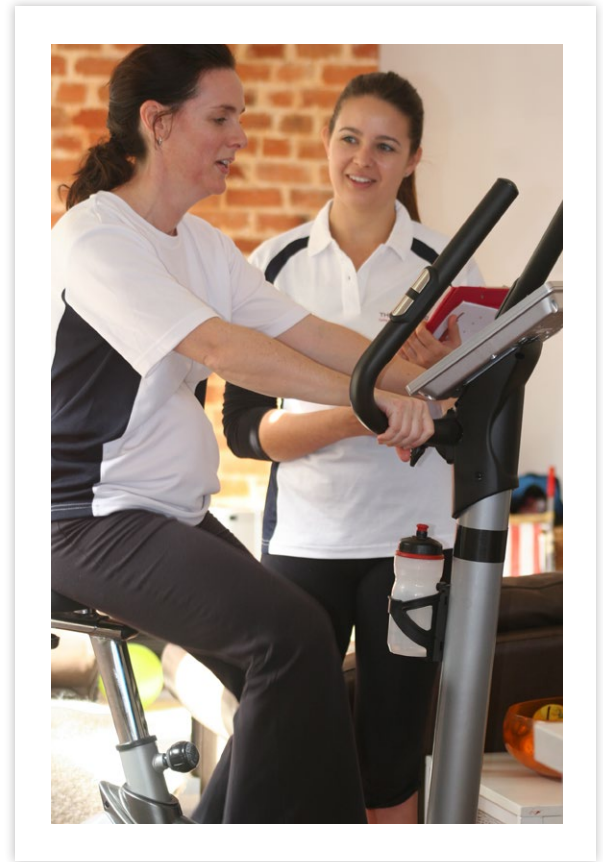


Research highlights

A total of 205 women enrolled in The Cycle Study over a period of approximately three years. We found that the program of regular stationary cycling commenced at 14 weeks of pregnancy did not affect the recurrence or severity of gestational diabetes. However, the program did have important benefits for the cardiovascular fitness and psychological well-being of the women involved.

Research achievements

This study shows that the commencement of a program of regular stationary cycling during pregnancy is safe and warmly embraced by women. The benefits to cardiovascular fitness and psychological well-being highlight the importance of regular exercise during pregnancy. However, given the lack of benefit on the recurrence of gestational diabetes, different research strategies are required and perhaps need to be implemented earlier in pregnancy. Our research program will continue to explore ways by which we can break the cycle of gestational diabetes and improve the health of future generations.



THE TEAM

Chief Investigators & Researchers

**WIRF/School of Women's and Infants' Health,
The University of Western Australia**
Prof John Newnham AM FRANZCOG
Prof Dorota Doherty PhD
Cherry Young RM
Diane Loh RM

School of Sport Science, Exercise and Health, The University of Western Australia

Dr Kym Guelfi PhD
Prof Paul Fournier PhD
Prof Bob Grove PhD
Prof Karen Wallman PhD
MJ Ong BSc(Hons)
Dr Nicole Crisp PhD

Sponsors

National Health and Medical Research Council
Women and Infants Research Foundation
Channel 7 Telethon Trust