



Intense Exercise During Pregnancy – Debunking Myths With Evidence-Based Recommendations and the HIIT Mama Project Outcomes

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Intense exercise during pregnancy remains surrounded by misconceptions that continue to limit pregnant participants' choices of physical activity. In this presentation, common claims about exercise during pregnancy will be discussed based on current scientific evidence, including findings from the experimental HIIT MAMA project conducted in Poland. Drawing on interdisciplinary research, the contribution of novel high-intensity interval training (HIIT) protocols to improving maternal health and wellbeing at the physiological, biochemical, proteomic, and psychosocial levels will be highlighted.

Despite historical concerns regarding the safety of vigorous- and high-intensity exercise during pregnancy, emerging data from both human and animal studies suggest that HIIT may offer unique health benefits beyond those observed with traditional moderate-intensity activity. Experimental outcomes demonstrating positive effects of HIIT on maternal cardio-metabolic parameters, musculoskeletal functions, and mental health – including its potential role in preventing gestational hypertension, gestational diabetes, preeclampsia, urinary incontinence, and pregnancy-related anxiety and depression – will be presented. Importantly, research to date has reported no adverse effects of both moderate-to-vigorous and high-intensity, supervised exercise programmes on pregnancy outcomes, childbirth, or neonatal health.

The presentation will also explore participants' perspectives, emphasising facilitators and barriers to engaging in vigorous- and high-intensity exercise during pregnancy and addressing methodological considerations relevant to designing safe and effective HIIT interventions for this population.

Together, these findings underscore the need to re-evaluate current recommendations and consider intensive physical activity and exercise during pregnancy as a powerful, evidence-based strategy for promoting health across two generations. It is crucial to reach women and other people in the perinatal period and their families, as well as instructors, trainers and physiotherapists, doctors and midwives, and decision-makers, in order to systematically use evidence-based knowledge in this area.

Keywords: Pregnant women; physical activity; high-intensity interval training; health benefits; safety concerns



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