

PERINATAL EXERCISE: EFFECTS ON CVD RISK & IMPLEMENTATION CHALLENGES

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***LEADING WELLNESS TODAY
FOR A BETTER TOMORROW***

Why Pay Attention to Perinatal Exercise?

- Cardiovascular disease (**CVD**) risk factors are associated with adverse pregnancy outcomes (**APOs**: hypertensive disorders, gestational diabetes, preeclampsia)
- CVD risk is higher after APOs
- Exercise improves CVD risk (before, during, and after pregnancy)

- Better **traditional risk factors** (BP, glucose, excessive gestational weight gain, lipids)
- Better **nontraditional risk factors** (some adverse pregnancy outcomes, sleep quality, depression, fitness)

**data summarized from observational and interventional studies*

Perinatal Exercise Works!



World Health Organization Summary

- In people without contraindications:
- At least **150 min/wk of moderate-intensity aerobic PA**
Women who were doing vigorous activities before pregnancy can continue under guidance of clinician
- Additional benefits with **muscle-strengthening activity** and potentially stretching activity
- **Limit sedentary behavior**; replace with any intensity activity for health benefits

What About Contraindications?

- Detailed in consensus documents for pregnancy and postpartum
- *Physical Activity and Exercise During Pregnancy and the Postpartum Period: ACOG Committee Opinion Summary, Number 804; Obstet Gynecol 2020 Vol. 135 Issue 4 Pages 991-993.*
- Davenport MH, et al. *International Delphi study of clinical and exercise professionals' opinion of physical activity prescreening and contraindications for participating in postpartum physical activity.* Br J Sports Med. 2025 Mar 31;59(8):527-538. ***includes screening questionnaire**

Implementation Challenge 1: Gaps in Guidelines

- Sparse-ish aerobic exercise guidelines
- No strength/resistance training dosing
- Definitive training and return-to-sport guidance for athletes (high level recreational and professional) is very individual, nuanced. Emerging consensus has been recently reported, mostly from PTs *Deering, et al Br J Sport Med, 2024 Feb 9;58(4):183-195.*

Physical Activity and Exercise During Pregnancy and the Postpartum Period: ACOG Committee Opinion Summary, Number 804; Obstet Gynecol 2020 Vol. 135 Issue 4 Pages 991-993

Implementation Challenge 2: Behavior Change + Life Change is Tricky

- Effective uptake and adherence strategies are lacking; 5 A's and motivational interviewing recommended
 1. Ask
 2. Advise
 3. Assess
 4. Assist
 5. Arrange

Physical Activity and Exercise During Pregnancy and the Postpartum Period: ACOG Committee Opinion Summary, Number 804; Obstet Gynecol 2020 Vol. 135 Issue 4 Pages 991-993

Statement of the Problem

- Exercise (mostly aerobic) delivered in controlled research studies improves CVD outcomes around pregnancy; **real-world perinatal exercise engagement is low.**
- **Behavior change** is difficult.
- **Perinatal physical changes & the many demands of parenting** a new baby make adopting or maintaining an exercise routine difficult.



PA Barriers in Pregnant Women

- Pregnancy-related symptoms
- Safety concerns
- Lack of information
- Inadequate social support

Coll CV, Domingues MR, et al. J Sci Med Sport. 2017;20:17–25.

PA Barriers in Postpartum Women

- Caring for a new baby
- Family responsibilities
- Sleep deprivation
- Mental exhaustion
- Ability to plan
- “Mom guilt”

DiTosto, Diabetes Spectr. 2024 May 3;37(4):349-359; Lim, Nutrients, 2024 Apr 3;16(7):1046; our ongoing study: U-M Women’s Health Innovation Fund

PA Facilitators in Pregnant Women

- Better mental health
- More pre-pregnancy PA
- Self-efficacy, enjoyment
- Higher belief in PA benefits
- Less misconception about risk

Garland, Worldviews Evid Based Nurs.
2019;16:310–318.

PA Facilitators in Postpartum Women

- Friend & family support
- Childcare
- Motivation/enjoyment
- Identification of benefit linked to PA/exercise

Lim, Nutrients, 2024 Apr
3;16(7):1046; Makama, Ob Rev,
2021 Apr;22(4):e13167; our ongoing
study

Counseling is Recommended

- Behavioral counseling in healthcare settings is recommended – this can be completed by a health coach or other trained provider
- Providers can use sample scripts for people undergoing life transitions to open the conversation, offer insight, and facilitate problem solving (elements of motivational interviewing)

Lobelo, Circulation. 2018;137:e495–e522. Lane-Cordova, Circulation, 2022;145(4):e117-e128.

Early Data – What Do Postpartum Women Want?

- Ongoing survey of people who are 3-15 months postpartum.
- Of 60 respondents, **mean age = 35 years** and **49%** had an APO.
- Of all respondents, **73.2%** say they **exercise a little or a lot less** now than before their most recent pregnancy.
- ~50% said **having a structured exercise plan** would help to be active (top response).
- Preferred mostly home-based sessions with occasional gym sessions.

Thank you

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