

Recommendations for Exercise in Pregnancy

The landscape for exercise in pregnancy has changed dramatically over the years. Gone are the days which practitioners advocated for bed rest for our pregnant patients. We are now realizing the enormous benefit exercise has in pregnancy and the numerous complications it may in fact prevent.

Prenatal exercise has been shown to result in decreased incidence of:

- GDM (38%)
- Pre-eclampsia (41%)
- Gestational HTN (39%)
- Pre-natal Depression (67%)
- Macrosomia (39%)

All these benefits were seen *without* an increase in adverse events (pre-term birth, low birth weight, miscarriage, and perinatal mortality).¹ In 2019, a working group of physicians, obstetricians, midwives, pregnant patients, and many other practitioners came together to develop the 2019 Canadian Guidelines for Exercise in Pregnancy.¹ In summary, the guidelines made 6 main recommendations:

Recommendation 1

All women without contraindication should be physically active throughout pregnancy.

- Those with absolute contraindications should continue with ADLs, but should avoid strenuous exercise
- Those with relative contraindications should discuss with their provider before engaging in a strenuous exercise program

Table 2. Absolute and relative contraindications to physical activity during pregnancy

Absolute contraindications	Relative contraindications
• Ruptured membranes, premature labour	• Recurrent pregnancy loss
• Unexplained persistent vaginal bleeding	• History of spontaneous preterm birth
• Placenta previa after 28 weeks gestation	• Gestational hypertension
• Preeclampsia	• Symptomatic anemia
• Incompetent cervix	• Malnutrition
• Intrauterine growth restriction	• Eating disorder
• High-order multiple pregnancy (e.g., triplets)	• Twin pregnancy after the 28th week
• Uncontrolled type I diabetes, uncontrolled hypertension, or uncontrolled thyroid disease	• Mild/moderate cardiovascular or respiratory disease
• Other serious cardiovascular, respiratory, or systemic disorder	• Other significant medical conditions

This recommendation includes those women who were previously inactive, those diagnosed with GDM, and patients with a BMI of greater than or equal to 25. The key is to begin the program slowly and progress up to the recommended time limit.

Recommendation 2

Pregnant women should accumulate at least 150 min of moderate-intensity physical activity each week to achieve clinically meaningful health benefits and reductions in pregnancy complications.

- Moderate activity is intense enough that a person can talk but NOT sing

Recommendation 3

Physical activity should be accumulated over a minimum of 3 days per week; however, being active every day is encouraged.

- The more active one is, the larger the benefit
- Those who exercise less than the recommended time frame will still incur positive benefits

Recommendation 4

Pregnant women should incorporate a variety of aerobic exercise and resistance training activities to achieve greater benefits. Adding yoga and/or gentle stretching may also be beneficial.

- Combining aerobic and anaerobic exercise will have additive effects

Recommendation 5

PFMT (eg, Kegel exercises) may be performed on a daily basis to reduce the odds of urinary incontinence. Instruction on the proper technique is recommended to obtain optimal benefits.

- 50% reduction in prenatal, 35 % reduction in postnatal urinary incontinence
- Key is patients require proper instruction (see a pelvic physiotherapist)

Recommendation 6

Pregnant women who experience light-headedness, nausea or feel unwell when they exercise flat on their back should modify their exercise position to avoid the supine position.

- Based on expert opinion

Below is an infographic free to download that succinctly summarizes these recommendations. This infographic was prepared by Dr. Davenport, who was one of the co-authors of the Canadian Guidelines.²

Bottom Line:

For patients who are otherwise healthy and without contraindications listed above, have them aim for approximately 150min of moderate intensity exercise a week. Any movement is better than none, so for those patients who are just starting out, reassure them that those extra 10 minutes they move will still reap positive benefits!

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PREGNANCY AND EXERCISE



EVIDENCE SUGGESTS
Physical activity is **NOT** associated with fetal complications such as miscarriage, stillbirth and preterm birth.

According to 2019 Canadian Guideline for Physical Activity Throughout Pregnancy, all women without medical restrictions* should be physically active throughout pregnancy.

STUDIES SHOW PHYSICAL ACTIVITY THROUGHOUT PREGNANCY CAN REDUCE THE RISK OF:

Pregnancy-related illnesses such as depression by at least



Developing gestational diabetes, high blood pressure and pre-eclampsia by



Pregnant women should get at least **150 MINUTES** PER WEEK of moderate-intensity physical activity, which could include walking, swimming, stationary cycling and resistance training.

A U.S. study found that only **15 per cent** of pregnant women meet the current guidelines for exercise during pregnancy.

RESISTANCE TRAINING

SAMPLE PROGRAM

UPPER BODY

- PRESS UPS** 2 x 10 reps
(standing against a wall)
- TRICEP DIPS** 2 x 10 reps
(from a chair with knees bent)
- UPRIGHT ROW** 2 x 10 reps
(with band or light weight)

LOWER BODY

- BODY WEIGHT SQUAT** 2 x 15 reps
(or sit-to-stand from chair)
- LUNGE** 2 x 10 reps each leg
(with support if needed)
- CALF RAISES** 2 x 15 reps
(with support if needed)



* Women who have medical restrictions should consult with their obstetric care provider prior to participation. Some of these contraindications include women with a ruptured membrane, persistent vaginal bleeding, a growth-restricted pregnancy, premature labour, pre-eclampsia and uncontrolled thyroid disease.

References:

1. Mottola MF, Davenport MH, Ruchat S-M, et al. 2019 Canadian guideline for physical activity throughout pregnancy. *Br J Sports Med*. 2018;52(21):1339-1346. doi:10.1136/bjsports-2018-100056
2. Program for Pregnancy & Postpartum Health. Accessed November 1, 2020. <https://www.ksr.ualberta.ca/exerciseandpregnancy/resources.php>