Exercise During Pregnancy
Reviewing the PARmed-X for Pregnancy Guidelines

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Maintaining a healthy lifestyle is a balance between eating habits and physical activity. Many pregnant women are not active, gain too much weight, and develop pregnancy-induced diseases. Often, medical providers may ask, “how much exercise is too much” instead of considering the benefits of exercise. Physical inactivity may be the underlying link to obesity development, gestational diabetes, and hypertension.1 Pregnancy is not the time to “put up your feet and rest” but, rather, a time for healthy lifestyle change, which also includes not “eating for two,” but eating twice as healthy and watching portion sizes.

The American College of Obstetricians and Gynecologists (ACOG) states that a woman with a low-risk pregnancy can participate in moderate exercise for 30 minutes, on most, if not all, days of the week.2 This advice promotes exercise during pregnancy but does not give women concrete guidelines. In Canada, guidelines for exercise during pregnancy are found in the Physical Activity Readiness Medical Examination (PARmed-X) for Pregnancy document.3 This four page document is endorsed by the Society of Obstetricians and Gynecologists of Canada (SOGC) and the Canadian Society for Exercise Physiologist (CSEP) and includes a medical prescreening questionnaire to identify contraindications to exercise, a list of safety considerations, and aerobic and muscle conditioning guidelines.4,5

Benefits of Exercising During Pregnancy
• More positive effect on self-image
• Improved fitness and stamina
• Fewer depressive symptoms during and after pregnancy
• Prevention of:
  – Excessive weight gain
  – Postpartum weight retention
  – Gestational diabetes mellitus
  – Developing type 2 diabetes later in life
  – Heart disease
  – Complications of labour and delivery6

The PARmed-X for Pregnancy
Page one of the PARmed-X for Pregnancy is completed by the patient, who provides important medical history information and a recent activity profile. Page two provides a convenient checklist for medical providers for contraindications to exercise. Medical prescreening is important to eliminate potential risk factors. In a healthy, low-risk pregnancy, mild to moderate
intensity exercise started or continued during pregnancy poses no threat to either the mother or the fetus.7

Contraindications to Exercise

Absolute contraindications to exercise include:

- Ruptured membranes
- Preterm labour
- Hypertensive disorders
- Incompetent cervix
- Growth restricted fetus
- Multiple gestation (triplets or higher)
- Placenta previa or persistent bleeding
- Uncontrolled systemic disorders

Relative contraindications are indicated if the risk to exercise exceeds the benefits of regular physical activity; however, some of these risks (e.g., anemia) can be modified or eliminated with treatment. These relative contraindications include:4,5

- History of spontaneous abortion or premature labour
- Cardiovascular or respiratory disorder (mild/moderate)
- Anemia (Hb < 100 g/L)
- Eating disorder/malnutrition
- Twin pregnancy after the 28th week

Evidence-based practical guidelines and prescriptions for aerobic activity and muscle conditioning activities are on pages two and three. Page three also includes a medical clearance form that can be completed by the obstetric provider and presented to prenatal fitness professionals by the pregnant woman. On page 4 is a list of safety considerations and reasons to consult the health care professional.

Pregnant women should know to stop exercising and seek medical advice if the following symptoms occur:

- Excessive shortness of breath
- Chest pain
- Presyncope
- Painful uterine contractions
- Amniotic fluid leakage
- Vaginal bleeding
- Absence of normally detected fetal movement4,5

Direct communication between the obstetric provider, the fitness professional, and the pregnant patient who wishes to exercise is vital to ensure the safety of the participant.

Aerobic Exercise Guidelines3,4,5

Walking is the most popular form of exercise for pregnant women.8 For more strenuous aerobic activity, the PARmed-X for Pregnancy presents the FITT principle with the following guidelines (see Table 1):

- Frequency (F): begin at three times per week building to four times per week
- Intensity (I): monitored using target heart rate zones based on age. Start an exercise program in the second trimester, at the lower end of the target heart rate zone.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Intensity</th>
<th>Time</th>
<th>Type</th>
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<tbody>
<tr>
<td>F</td>
<td>3–4 times per week</td>
<td>Mild to moderate</td>
<td>25–30 minutes plus 10–15 minutes devoted to warm-up and cool-down</td>
<td>Walking</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>Use target heart rate zones, talk test, and rating of perceived exertion scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td></td>
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Table 1: Exercise Prescription for Low-risk Women Using the FITT Principle from the PARmed-X for Pregnancy Tool3
More avid exercisers can continue at the higher end of the target heart rate zone. Also, use the “Talk Test,” in which the woman carries on a conversation without becoming out of breath. If breathless while speaking during exercise, the intensity must be reduced. The woman should rate how hard she thinks she is working based on the Rating of Perceived Exertion Scale (see Table 2); she should be in the 12 to 14 range (somewhat hard)

- **Time (T):** start at 15 minutes per target heart rate session, increasing 2 minutes per week until 30 minutes and then maintain. All aerobic activity should begin with a warm-up of 5 to 10 minutes and be followed by a cool-down of 5 to 10 minutes of lower intensity activity
- **Type (T):** include low-impact or nonweight bearing endurance exercise using large muscle groups; walking, stationary cycling, swimming, aquatic exercise or low-impact aerobics

### Take Home Message

Pregnancy is the time when many women adopt healthier lifestyles by improving eating habits and thinking about active living. Pregnant and postpartum women have a strong influence on family members, especially children, regarding healthy eating and lifestyle, thus diminishing future potential health risks to the next generation. Given the clearly established benefits of participating in physical activity before, during and after pregnancy, it is important for the obstetric caregiver to promote active living during pregnancy, especially when these guidelines and medical prescreening are provided in a convenient tool (PARmed-X for Pregnancy), to assist the medical professional in a busy family practice.

### Table 2

<table>
<thead>
<tr>
<th>Rating</th>
<th>Intensity</th>
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<tbody>
<tr>
<td>6</td>
<td>Very, very light</td>
</tr>
<tr>
<td>7</td>
<td>Somewhat light</td>
</tr>
<tr>
<td>8</td>
<td>Fairly light</td>
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<tr>
<td>9</td>
<td>Somewhat hard</td>
</tr>
<tr>
<td>10</td>
<td>Hard</td>
</tr>
<tr>
<td>11</td>
<td>Very hard</td>
</tr>
<tr>
<td>12</td>
<td>Very, very hard</td>
</tr>
</tbody>
</table>

### References

### Resources

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