

ACTIVE PREGNANCY



Helping you to be active during pregnancy



This resource is provided for general information purposes only. For further information, individuals are advised to seek the advice of a physician or other healthcare professional. Funding for this resource was provided by the Ministry of Health and Long-Term Care. The views expressed in this resource are those of Ophea and do not necessarily reflect the views of the Ministry of Health and Long-Term Care.

© Copyright Ophea 2013 All rights reserved. Limited duplication for personal use is acceptable, without permission, provided suitable credit is given.

ISBN 978-1-77184-002-6

PHYSICAL ACTIVITY RESOURCE CENTRE

The Physical Activity Resource Centre (PARC) is the Centre of Excellence for physical activity promotion in Ontario and supports professionals working in public health, community health, fitness, recreation, sport, non-government organizations, and schools to enhance opportunities for healthy active living in Ontario.

For more information and support, please visit parc.ophea.net.


Established in 2003, the Physical Activity Resource Centre is managed by Ophea and is funded by the Government of Ontario.



BENEFITS OF AN ACTIVE PREGNANCY

Pregnancy does not have to stop you from being active. Benefits of being active include improved heart and lung health, muscular fitness, prevention of excessive weight gain, diabetes during pregnancy (gestational diabetes) and high-blood pressure (pregnancy-induced hypertension).

Current research suggests that healthy pregnant women are encouraged to participate in physical activity. If you have been regularly active (3 times per week for 30 minutes) before pregnancy, you can safely participate in physical activity during pregnancy. If you have not been regularly active before pregnancy, the best time to start would be after your 12th week (first trimester) of pregnancy or during your second trimester when the risks and discomforts of pregnancy are at their lowest. However **walking is always encouraged**, regardless of previous activity level unless your health care provider has given you advice to limit activity.



How do you know you're walking at the right pace to get the health benefits?

Use the Talk Test; it's simple and easy... if you can't talk and walk, then you're walking too fast.

Before engaging in physical activity, begin your program by following the guidelines listed below. Each physical activity session should include stretching and aerobic activity.

SAFETY GUIDELINES

FOR PHYSICAL ACTIVITY DURING PREGNANCY

- 1 Consult with your health care provider before beginning or changing your physical activity program.
- 2 Begin slowly. Start with aerobic activity 3 times per week for 15 minutes and work up to no more than 4 times per week of 30 minutes of aerobic activity.
- 3 Avoid activities which require sudden starts or stops, jumping, or rapid changes in direction.
- 4 Always warm up your muscles before activity and stretch after your activity. Never stretch a cold muscle.
- 5 Drink water before, during, and after your activity to replace body fluids lost through sweat and before being active.
- 6 Never exercise on an empty stomach, be sure to eat a light snack about 30 – 60 minutes before exercising.
- 7 Your body temperature should not exceed 38°C. Avoid being active in warm, humid weather especially during the first trimester or when you are ill and have a fever. Check the temperature of a heated pool before swimming. Avoid hot tubs, hot yoga, saunas or whirlpools.
- 8 Avoid activities which require you to lie on your back after four months or 16 weeks of pregnancy. Instead, perform the activities while lying on your side, sitting or standing.
- 9 Pregnant women should be careful when doing activities where they may lose balance, such as horseback riding, downhill skiing, ice hockey, gymnastics or cycling. Scuba diving should be avoided.



Stretching your muscles before and after activity will prevent muscle soreness and stiffness. Before aerobic activity, warm your muscles and joints with a slow movement such as walking or marching on the spot. After this slow movement, stretch using the exercises outlined below. These exercises can be used both before and after activity. Remember: never stretch your muscles when they are cold or stiff.

LONG STRETCH

Knees should be slightly bent. Reach for your right ankle using your right hand. At the same time raise your left arm overhead and reach for your right ankle. Hold the stretch for a few seconds and release. Repeat three times, and then change legs.



CALF STRETCHING

Stand about three feet from a wall. Lean forward and put your hands against the wall at shoulder height (don't bend at the waist). Put one foot forward (both knees should be slightly bent), keeping both heels on the ground. Lean your body slowly towards the wall. If you are doing the stretch correctly, you should feel the stretch in your calves. Stretch for a few seconds then release. Repeat three times, then change legs.



THIGH STRETCHING

Sit in the “butterfly” position with heels together and pulled close to your body. Gently press both knees towards the floor. Hold the stretch for a few seconds then relax. Press both knees towards the floor again by placing your hands on top of your knees. Hold for a few seconds and then release. Repeat the sequence three times.



ALTERNATIVE ARM STRETCHES

Keep your back straight while sitting or standing. Slowly reach overhead with your right arm, and then left arm. Reach until you have lifted each arm 20 times.



GUIDELINES FOR AEROBIC ACTIVITY

Choose an activity you enjoy! Being active with family and friends makes it fun and if it is fun, you are more likely to continue with active living. Some of the best types of physical activities during pregnancy include: walking, stationary cycling, swimming, using an elliptical trainer machine and low impact aerobics. It is important to gradually increase the frequency, duration, and intensity of your activity. The best time to increase your activity is during your second trimester when the risks and discomforts of pregnancy are usually at their lowest.

1 The frequency of your activity should gradually increase from three times to no more than four times per week during your second trimester.

2 The duration of your activity should gradually increase from a minimum of 15 minutes to a maximum of 30 minutes per session during your second trimester.

3 The intensity of your activity is based on your age and how hard you are working. All aerobic activity should be done at a moderate-intensity. Moderate intensity activities allow you to carry on a conversation while being active. Slow down the intensity if you cannot talk while performing the activity. Exercise at the lower end of the heart rate range if you are beginning a new program or if you are in your third trimester of pregnancy. The heart rate zones shown are appropriate for most healthy pregnant women.

HEART RATE ZONES

FITNESS LEVEL	AGE 20 - 29	AGE 30 - 39
FIT	145 - 160	140 - 156
ACTIVE	135 - 150	130 - 145
UNFIT	129 - 144	128 - 144
OVERWEIGHT/ OBESE	102 -124	101 - 120

* If under 20 years old, range is 140-155 bpm.

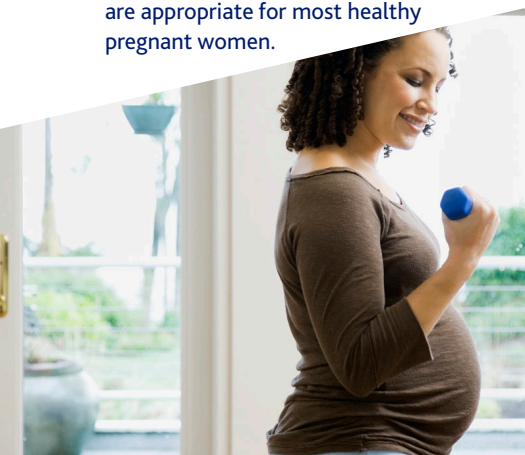
¹ Davenport, M., Sopper, M.M., Charlesworth, S., Vanderspank, D., Mottola, M.F. 2008. Development and validation of exercise target heart rate zones for overweight and obese pregnant women. *Appl Physiol Nutr Metabol*. 33(5):984-9.

FOR EXAMPLE

If you are active and 28 years of age, your heart rate during activity should not exceed 150 beats per minute. If you are just beginning a physical activity program or are in your third trimester, your heart rate should be around 135 beats per minute.

If 40 years old or older, consider the age range above (30 – 39 years) and work closely with your health care provider.

Remember to use the “talk test” and adjust your intensity accordingly. If you cannot talk without getting out of breath, reduce your intensity.



There are many ways to maintain your muscle strength during pregnancy. Light hand weights or elastic resistance bands (even large cans from your food cupboard or a water bottle) are recommended to improve or maintain upper and lower body strength and help keep good posture. Another alternative is to perform the exercises on page 9. They will help you to maintain strength and muscle tone during your pregnancy.

LIFTING GUIDELINES

- 1 Avoid lifting heavy weights. Do not lift any weights while lying on your back.
- 2 Begin slowly. Gradually increase the number of times you perform each exercise. Do not push your muscles or energy levels to the point of fatigue.
- 3 Do not hold your breath. Exhale on exertion, inhale on relaxation using more repetitions and lighter weights.
- 4 If you are beyond four months or 16 weeks of pregnancy, avoid exercises while lying on your back. The enlarged uterus may decrease the flow of blood as it presses on a major vein or artery.



AVOID LIFTING HEAVY WEIGHTS

PELVIC FLOOR MUSCLE STRENGTHENING

Healthy pelvic muscles will support the growing uterus to stretch easily and recover quickly after childbirth. Kegel exercises, like the elevator, should be done several times each day. Do a set of five exercises at each session so your muscles do not tire easily.

ELEVATOR

Stand comfortably or sit in a chair with your feet resting on a stool. Imagine you are on an elevator that is going from the first floor to the tenth floor. Tighten your pelvic muscles a little at a time at each floor until you reach the tenth floor. Release your muscles a little at a time as you go from the tenth floor to the first floor. By the time you reach the first floor, your muscles should feel back to normal. Try to release your muscles even more as you imagine moving down to the basement of the building. Tighten your muscles again to come up to the first floor. Repeat this exercise five times.



SHOULDER SHRUG

Sit on the floor with your ankles crossed and hands relaxed in front. Raise your shoulders to your ears while breathing in, then let your shoulders drop while breathing out. Repeat 10 times.



SHOULDER ROTATION

Place your fingertips on each shoulder and roll your elbows backward, making high enough circles so that the back of each hand touches your ears. Then, roll your elbows forward so that your elbows touch in front. Repeat 10 times in each direction.



MODIFIED PUSH-OFFS

Stand about three feet from a wall. Lean forward and put your hands against the wall at shoulder height (Do not bend at the waist). Keep both heels on the ground and lean your body slowly towards the wall. Keep your body straight from shoulders to feet, with heels flat on the floor, then push-off from the wall by bending and straightening arms. Do one set of 10. Rest and repeat. Remember to breathe through the exercise.

Remember to **BREATHE**
through all exercises

Strengthening your abdominal muscles will help maintain your posture, will help with backaches and may also be helpful in assisting with delivery. Exercises can be performed on your side, sitting or standing. Do not do exercises lying on your back if you are past 4 months (16 weeks).

CHECKING FOR DIASTASIS RECTI:

Diastasis Recti (a separation of the abdominal muscles in the middle) is rare and only happens in less than 3% of pregnancies; however it does require women to stop all abdominal exercises. To check for Diastasis Recti, sit in a chair and contract your abdominal muscles. Using your fingers, feel your abdominal muscles around your belly button area. You should feel the hard abdominal muscle wall. If you feel soft tissue between the abdominal muscles (you usually can see a bulge in the centre of your abdomen) then you have Diastasis Recti. If you have Diastasis Recti, do not perform any abdominal exercise as this may make the condition worse. Consult your healthcare provider or a prenatal fitness professional.

MODIFIED CURL-UP

If you have Diastasis Recti, a separation of your abdominal muscles, do not perform any abdominal exercise as this might make the condition worse. Sit on a chair with your feet flat on the floor. Keep your back flat and place your hands at the side of your ears. Gently lift one leg at a time in towards your abdomen. Slowly release your leg to the floor and repeat with the other leg. Repeat about 10 times each leg or as much as you can.



Do not do exercises lying on your back if you are past 4 months (16 weeks).





RECLINING LEG LIFTS

Lie on the floor on your right side. Bend your right leg at the knee for support and raise your left leg (keep your knee slightly bent) about 45 degrees then lower. Repeat 10-15 times, then change sides and legs.



IMAGINARY CHAIR

While standing, slide into an imaginary sitting position against a wall. Your thighs should be parallel to the floor, your back flat against the wall, feet are planted and your arms relaxed at your sides. Hold this position for no more than the duration of two complete breaths, remembering to breathe normally. Then slowly slide back up to a standing position. After a few seconds of rest, repeat the exercise. Do this 5-10 times.



STANDING LEG LIFTS

Stand sideways to a wall with one hand on the wall for support. Stand on the leg that is closest to the wall (support leg) while slowly lifting the other foot backwards about 4 inches off the floor, keeping your knee straight and then return your foot to the floor. Tighten your buttocks each time you lift your foot off the floor. Repeat 5 to 10 times. Switch sides. You can also slowly swing your foot forward and return to standing, tightening your buttocks as you lift your foot each time. Again repeat about 5 to 10 times and then switch sides. Remember to use the wall for support.

Posture is very important for pregnant women. Backaches are a frequent issue experienced during pregnancy. The following is excellent for developing good posture and may help to relieve back problems.

NEUTRAL PELVIC ALIGNMENT (STANDING OR SITTING)



To find this position, stand with your feet shoulder width apart and your knees slightly bent. **(1)** Accentuate the arch of your back and then move from this position into a **(2)** forward pelvic tilt. Pull in your abdominal muscles and squeeze your buttocks together so that your lower back is flattened (can be done against the wall or back of the chair). **(3)** Then move into a neutral pelvic alignment by positioning your body half way between these two postures.

RELAX

Remember: listen to your body. If you feel uncomfortable, experience pain, dizziness, shortness of breath, or other symptoms - STOP and consult your health care provider.



CONTINUE BEING ACTIVE

After the birth of your baby, it is important to continue being active for your health, the health of your family and to help you be a good role model for your growing baby.



Ophea and PARC wish to acknowledge the contribution of the many organizations who participated in the development of Active Pregnancy. In particular, Ophea and PARC wish to acknowledge the following individuals for their contributions to the resource:

Lead Writer

Dr. Michelle Mottola,
Western University

Review Team

Mary Mueller, Region of
Waterloo Public Health

Karim Kalin, Region of
Waterloo Public Health

Dr. Michelle Mottola,
Western University

Louise Choquette,
Best Start Resource Centre

NOTES

1) Davenport, M., Sopper, M.M., Charlesworth, S., Vanderspank, D., Mottola, M.F. 2008. Development and validation of exercise target heart rate zones for overweight and obese pregnant women. *Appl Physiol Nutr Metabol.* 33(5):984-9.

2) Mottola, M.F., Davenport, M., Brun, C.R., Inglis, S.D., Charlesworth, S., Sopper, M.M. 2006. VO2 peak prediction and exercise prescription for pregnant women. *Med. Sci. Sports Exerc.* 38(8):1389-1395.

Ophea and PARC are also grateful to acknowledge development and dissemination support for Active Pregnancy from:

best start
meilleur départ

by/par health **nexus** santé





Visit parc.ophea.net to access the electronic version of this resource.

To access the PARmed-X for PREGNANCY, visit <http://www.csep.ca/cmfiles/publications/paraq/parmed-xpreg.pdf>.

If you have questions about physical activity during pregnancy, contact the Exercise & Pregnancy Hotline (Women's College) at 1.866.937.7678.