

Perinatal Lifestyle Guidelines: Pre and Post-Natal Exercise and Nutrition Information

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Pre-Conception

Exercise

Regular and consistent physical activity is essential for optimal health. Current recommendations from the Canadian Society for Exercise Physiology are to accumulate a minimum of 150 minutes of physical activity each week; this includes cardiovascular exercise and at least 2 resistance training sessions⁶. In addition, gentle yoga and stretching activities are encouraged for general health and well-being.

More exercise is often better, however overtraining, which is a prolonged period of very high intensity physical activity without proper rest and recovery, is a chronic stressor that negatively affects reproductive hormones in both men and women. Therefore a physically active lifestyle, balanced with proper nutrition, rest and recovery is recommended for optimal fertility.

Nutrition

Consuming a healthy, well-balanced diet that provides ample caloric intake will help ensure optimal hormone levels. Unless for ethical beliefs or a medical condition, it is not advised to eliminate an entire food group from your diet. Chemical additives and artificial sweeteners, however, should be avoided. A nutrient rich diet, comprised of whole foods plays a key role for overall health and fertility.

Prenatal supplementation:

- Begin a prenatal multivitamin at least 1 month prior to conception. It should contain:
 - Iodine: 150 micrograms per day²
 - Folic acid (preferably in the form of methylated folate): a minimum of 400 micrograms per day and up to 800 micrograms per day¹⁰
- Vitamin D3: 1000-2000 IU daily¹
- Omega 3 fatty acids obtained through 2 servings of low mercury fish per week or a fish oil supplement⁸

Lifestyle

In addition to exercise and nutrition, optimal health relies on many other lifestyle factors, including sleep hygiene and stress management. Sleep is an essential part of rest and recovery that helps us maintain both our mental and physical health. Prioritize sleep, aiming for 7-9 hours per day. This can be broken up and accumulated within a 24 hour period if shift work occurs.

Stress management is also important. While we cannot always prevent stressful things from occurring within our lives, understanding our own stress reactions and finding ways to minimize chronic stress is vital for fertility and a healthy family life.

Couples should implement the following lifestyle changes for a minimum of 4-6 months prior to conceiving, if possible⁶:

- Avoid smoking, alcohol and drugs
- Lose or gain body weight as needed
- Consume a nutrient rich diet
- Participate in regular physical activity
- Address any current health issues
- Reduce/eliminate heavy metal, electromagnetic, chemical exposure
- Correct hormone imbalances and have ovulation awareness

Pregnancy

Exercise

First and foremost, exercise guidelines will vary from one individual to another; always work with your health care team to determine the right exercise plan for you and your pregnancy.

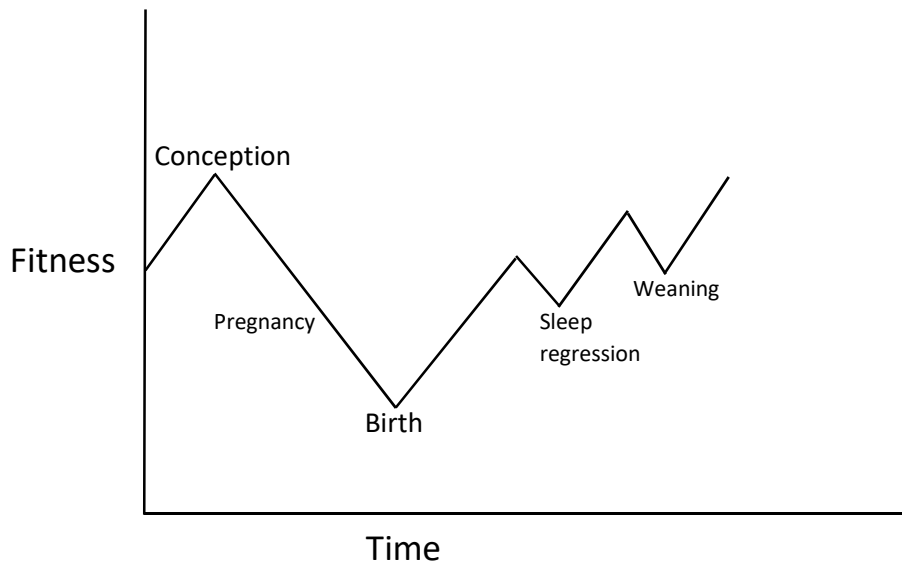
Who could be on your health care team? This can vary from one individual to the next but could include any of the following:

- Doctor or Midwife (the lead on your team)
- Naturopath
- Manual Therapist (Massage Therapist, Chiropractor, Osteopath)
- Pelvic Floor Physiotherapist
- Acupuncturist
- Doula
- Nutritionist
- Counsellor or Therapist
- Exercise Professional
- Lactation Consultant

The addition or continuation of regular exercise has been shown by research to greatly support the health of both mother and baby during pregnancy.

If you are a highly active person in excellent physical condition, it may help to think about your pregnancy and postpartum exercise journey as a pyramid. You begin at the top of the pyramid at your peak fitness. Your activity is gradually modified as you move down the pyramid and as your baby grows. You give birth – an exceptional feat and one of the most challenging things your body will ever do – and undergo a period of recovery (the valley of the pyramid). If it is a personal goal to return to previous or similar levels of fitness, you gradually rehabilitate and reintroduce activity, climbing your way back up the pyramid.

Perinatal Fitness Pyramid



Note:

This is an example of how your fitness may ebb and flow over time. This is **normal** and **expected**.

Remember, your postpartum fitness pyramid may be a totally different one than your pre-pregnancy fitness pyramid and that is **allowed**!

Benefits of exercise during pregnancy, based on current research and guidelines from the Canadian Society for Exercise Physiology⁶:

- Exercise reduces the risk of developing gestational hypertension by 39% and preeclampsia by 41%. Lowering the risk of these conditions reduces the risk of developing maternal cardiovascular disease later in life.
- Exercise reduces the risk of developing gestational diabetes mellitus by 38%.
- Exercise supports healthy maternal weight gain during pregnancy. The risk of developing gestational diabetes and preeclampsia are higher in overweight and obese pregnancies. Excess weight also increases the risk of C-section delivery and macrosomia.
- Exercise helps minimize symptoms of prenatal depression (which affects 13% of women and is typically treated pharmacologically) by 67%.
- Exercise reduces the odds of prenatal urinary incontinence by 51% and postpartum urinary incontinence by 37%.
- Exercise reduces the likelihood of instrumental delivery (use of forceps or vacuum) by 24%, but shows no change in caesarean delivery.
- Exercise reduces the severity (not prevention) of lower back, pelvic girdle and lumbopelvic pain during pregnancy.

Exercise during pregnancy **does not**⁶:

- Increase risk of preterm birth.
- Increase risk of early pregnancy loss.
- Lead to an increased core body temperature that can cause congenital abnormalities.
- Lead to fetal growth restriction.

Contraindications to Exercise during Pregnancy

These can be found within the current CSEP guidelines for exercise and pregnancy and can be discussed with your health care provider. See the guidelines here: https://csepguidelines.ca/wp-content/uploads/2018/10/4208_CSEP_Pregnancy_Guidelines_En_P2A.pdf

CSEP's Par-Med X for pregnancy can be used by health care providers to screen patients prior to beginning new fitness activities. See the form here: <https://csep.ca/CMFiles/publications/parq/parmed-xpreg.pdf>

Reasons to stop exercise and consult a health care provider:

- Excessive shortness of breath
- Severe chest pain
- Regular and painful uterine contractions
- Vaginal bleeding
- Persistent loss of fluid from vagina indicating rupture of membranes
- Persistent dizziness or faintness that does not resolve with rest

Other Considerations⁶

- Throughout pregnancy, your body produces a hormone called relaxin, which continues to increase in production until you give birth. Its function is to relax your ligaments and connective tissue so your hips and pelvis can separate and move to accommodate your growing baby, and for birth. Be mindful not to overstretch joints, and recognize that you may be more unstable during pregnancy because of this. Your center of gravity will also change as your baby grows. As your pregnancy progresses, take caution with quick lateral movements, jumping or fast turns.
- Avoid exercise in high heat or humid conditions. Use air conditioning and if exercising outside, choose morning or evening times as they are typically cooler. Drink more water as dehydration is more likely. Your body can overheat during pregnancy without you being aware.
- Avoid activities that risk trauma to the belly.
- Avoid scuba diving. There is no known safe level of depth for the fetus.
- Avoid exercising at higher altitudes than you are used to, as the effects are unknown.
- If a woman feels unwell (faint or nauseous) while in a supine position then raise to an incline position by turning to the left lateral side and then sitting up. These symptoms may be due to reduced venous return and/or delivery of blood flow to baby.

- Modify exercises as needed to minimize any discomfort. The intensity of exercise may change over the course of your pregnancy (for example a brisk walk near end of pregnancy may be the same relative intensity as a jog early in pregnancy due to weight, metabolism, HR etc.)
- Maintain adequate nutrition and hydration, particularly around workouts (blood glucose, hydration)

Maternal Weight Gain



https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/fn-an/alt_formats/pdf/nutrition/prenatal/hwgdp-ppspg-eng.pdf

If a physically active lifestyle and a high quality, nutrient rich diet is maintained, the majority of the maternal weight is distributed between the baby, placenta, increased fluid levels and normal body fat storage (needed to support optimal pregnancy and lactation hormones).

The following provides a general outline of what to expect during each trimester and how to adjust exercise throughout your pregnancy.

First Trimester

Continue with normal activities as tolerated. You may feel nauseated, a common symptom of your first trimester, so just do your best to stay active. You can continue with the same volume and intensity of exercise if you are feeling mentally and physically well enough to do so.

Postural alignment and proper breathing techniques are essential for the continuation of exercise throughout pregnancy, especially resistance training and tasks of daily living. The pelvic floor and abdomen are like a canister; pressure can build within this canister depending on breathing technique, muscle tension and postural alignment⁹. As your pregnancy progresses, ensure that you are utilizing these strategies in order to minimize the risk of pelvic floor injuries. These are also essential in the postpartum phase as you care for yourself and your baby. Proper alignment and breathing are needed to protect your pelvic floor, back and abdominal muscles as your body recovers from delivery.

Alignment



A – Ideal alignment: ribs over hips, maintain as long as comfortable during exercise and throughout pregnancy



B – Avoid rounding lower back and tucking bum



C – Avoid arching lower back and pressing ribs upward

Breathing

As your pregnancy progresses, focus on exhaling on the exertion of lifts and avoid breath holding during heavy lifting, though exploring different breathing strategies during exercise is encouraged as our pelvic floor response can be individual⁹.

Second Trimester

Diastasis Recti

By this point your abdomen may have begun to separate down the midline. This is called diastasis recti and it is a perfectly normal function that accommodates a growing baby. This can happen earlier or later in your pregnancy depending on your body size, subsequent pregnancies, etc.

This separation will recede after pregnancy, however some movements, such as resistance training or other activities requiring a high level of exertion, can cause “coning” to occur. This is when the tissue beneath the abdomen begins to “cone” or “dome” out through the midline. Although any movement can cause “coning”, re-checking alignment, core engagement and breathing can sometimes eliminate this⁹.

See this video for a visual example: <https://www.youtube.com/watch?v=QT4-dMmhYDY>

During this trimester, there are several common exercises that may need to be modified due to “coning”. These could include pull-ups, push-ups from your feet, challenging core exercises (such as leg raises), anything from a v-sit position, sitting straight up from a lying position, among others.

It is important to modify these activities when you can no longer control this factor with breathing and alignment so that you do not exacerbate the separation. This will help support proper healing of the abdomen after giving birth⁸.

Pelvic Floor and Hip Changes

Your pelvic floor is a group of muscles and connective tissues that support your internal pelvic organs. Pregnancy greatly affects the structure of your pelvic floor and exercise considerations should be made to protect its integrity during pregnancy, birth and in the postpartum period.

Your pelvic floor is like a trampoline. As the pressure on the trampoline increases from your growing baby, uterus and placenta, the impact and load should be decreased. This lessens the stress on the trampoline so that after the baby is born, your pelvic floor has an easier time recovering. Some individuals may feel comfortable running or jumping in their second trimester while others will not. By 20 weeks of your pregnancy, high impact activities (such as running, jumping rope or box jumps) can be modified to alternative lower impact activities (incline walking, stair climbing/stair mill, assault or spin bike) to protect the pelvic floor from these loads⁹.

Relaxin is the hormone that enables your hips and pelvis to shift to accommodate a growing baby, however, it also affects all of the other connective tissues in your body. As a result, you may experience different sensations in your body throughout your pregnancy. Always modify your activity to accommodate for these changes.

A pelvic floor physiotherapist is a great resource to use during your pregnancy if you notice any changes in pelvic floor function.

Alignment and Breathing: “Blow before go” https://www.youtube.com/watch?v=E_zqlZWHXOo

Exhaling before the exertion of an exercise or lift (i.e. equipment at work, lifting a toddler, laundry basket, etc.) can help alleviate pressure on the pelvic floor if this is something you are experiencing.

Example Exercise Modification Table

Exercise	Example Modification
Pullups	Inverted row, TRX row, cable row, etc.
Pushups feet on floor	Pushup from knees, incline push up, chest press, etc.
Leg raises, sit ups and v-sits	Pallof Press and variations
Barbell overhead press	SA dumbbell overhead press
Front Planking	Incline planking, plank from knees, side plank
Running	Hiking/Incline walking, stairmill, swimming, walking stairs outdoors
Sprinting	Assault bike, sled push/pull/battle ropes
Jumping rope	Weighted bench step ups or quick alternating step ups
Heavy Overhead Press	Single arm press, light to medium weight
Overhead Press	Anterior and lateral raises, reverse flies, face pulls

Signs and symptoms a movement may not be working for you⁹

- Back, rib, hip or pelvic pain
- Feelings of heaviness, pressure or bulging in the pelvic floor
- Abdominal strain, coning
- Urinary incontinence or urgency
- Dizziness, exhaustion

Third Trimester

Follow similar recommendations as listed above and continue to modify as your pregnancy progresses and your baby continues to grow. Continue to stay as active as you can, though beginning to decrease intense physical activity as you approach your due date can be beneficial. The last month of your pregnancy could focus more on walking, yoga and gentle stretching, some resistance training and lots of rest.

Walking and stretching will help the baby move into place for birth, while rest and recovery are required to conserve energy for your labor, birth and the initial postpartum phase. You can consider seeing a pelvic floor physiotherapist to gain a baseline assessment for after you give birth. They also can help with modifying exercises which can prevent any symptoms.

For two full body second and third trimester pregnancy workout examples, see **appendix A**.

Nutrition

Pregnancy is a key time for focusing on consuming a nutrient rich, well-balanced diet. That being said, during your pregnancy, you may find you experience changes in your appetite and the amount you are able to eat. Do the best you can. Recommended guidelines are below:

- Discuss any supplements you are taking prior to pregnancy with your health care provider to determine their safety and appropriateness during pregnancy and breastfeeding.
- Ideally, take a prenatal vitamin prior to conception and you can continue until you have finished breastfeeding¹⁷ or discuss using it as a multivitamin throughout your childbearing years with your health care provider.
- Caloric requirements increase during pregnancy. In the first trimester, caloric intake may be approximately the same, if consuming a minimum of 2000 calorie per day diet. The second trimester requires an additional 350 calories while the third trimester requires approximately 500 calories more from baseline per day⁶. The saying “eating for two” is inaccurate, but eating twice as healthy is very important.
- Consume lower amounts of refined sugars and carbohydrates. Choose high fiber and nutrient dense carbohydrates. Try to pair a source of protein and/or fat with carbohydrates eaten during meals and snacks. This will help support a lower risk of developing gestational diabetes during your pregnancy¹⁸.
- Eat regularly throughout the day, every 2-4 hours as needed.
- Drink 2-3 litres of water per day, more if physically active¹.
- You may experience nausea in your first trimester, which may make it difficult to consume high protein foods. Do the best you can. Most importantly eat foods you can tolerate. Typically, during the second trimester you will feel able to eat a variety of foods again.
- Consume adequate protein. New research is suggesting we need 1.2 g/kg/day at 16 weeks gestation and 1.5 g/kg/day at 36 weeks gestation⁴.
- Ideal iodine intake is 250 micrograms/day during pregnancy and lactation². A good prenatal vitamin should have 150 micrograms. Try to make up the rest of your intake by incorporating foods rich in iodine in your diet, such as seafood and seaweed.
- B Vitamins: Folate, B12, choline
 - As mentioned above, an ideal prenatal vitamin should contain methylated folate. Begin this supplement prior to conceiving or immediately if the pregnancy was unplanned.
 - Food sources of these vitamins include meat, poultry, egg yolk, legumes, green leafy vegetables and beets.
- Iron deficiencies are the most common nutrient deficiency in the world and there is a greater demand for iron during pregnancy¹⁴. This will be monitored by your health care provider but ensure your diet is rich in iron containing foods that can be easily absorbed.
 - Food sources include red meat and other meat products, cooked egg yolk and seafood.
 - Legumes and leafy green vegetables also contain iron but this type is harder to absorb. Eating a source of vitamin C with an iron containing food can help increase iron's absorption.

- Omega 3 fats: aim to consume 300 mg of DHA per day at a minimum; this can be consumed through 2-3 servings of cold water fish per week (salmon, herring, sardines, haddock, trout, or muscles)⁸. Alternatively, an omega 3 fish oil supplement can be taken. Health Canada has a guide to low mercury fish here: <https://www.canada.ca/en/health-canada/services/publications/food-nutrition/prenatal-nutrition-guidelines-health-professionals-fish-omega-3-fatty-acids-2009.html>
- Vitamin D: 2000 IU/day¹, liquid form is best absorbed and ingest with a fat containing snack or meal if possible.
- For an example meal plan with recipes during pregnancy, see **appendix B**.

Lifestyle

During pregnancy, your body is the most metabolically active it has ever been. You will feel more tired; rest or nap as often as you need and are able to.

Continue to manage stress. Pregnancy is also a time when much is out of your control and this can be difficult for some personality types. Try to relax and be present throughout the process as much as you can. Pregnancy is a temporary state.

Reach out to your family and friends (your community) to set up postpartum support for the first few months after having your baby. Homemade meals, short social visits, help around the house or with the baby will be vital during this time. Batch cook meals and store them in your freezer for this period.

Put time and energy into your relationships during your pregnancy, as things will change for a period of time once your baby is born. You will evolve as a person, and your relationships will always be there, but much of your focus in the months after your baby is born will revolve around the child and getting adequate sleep.

Postpartum

The early days postpartum are often referred to as the Fourth Trimester. This can include up to 40 days to 3 months postpartum. In many cultures, this is a time for the mother to rest, bond with the baby, and have her community give support and feed her nourishing food so she can heal. Our North American society does not always mention this important time. Instead, many mothers feel pressured to resume normal daily activities, care for older children, drive themselves to appointments early on, as well as return to their body weight and size prior to getting pregnant. While regaining some routine may feel good, resuming activities of daily living (including exercise programming and dieting) can lead to physical and mental exhaustion, injury and an increased risk of a postpartum mood disorder. Communicate your needs with your support system so you can have this time to rest, recover and transition.

Exercise

- Allow your body and pelvic floor to recover in the postpartum period. Limit physical activity to caring for your baby, resting and gentle movement in the initial period of time after birth (particularly if you had a C-section or any birth injuries), or as cleared by your health care team. Returning to exercise postpartum is uniquely individual to each person based on their own pregnancy, birth and support system after the baby is born.
- Most health care providers recommend 4-6 weeks of rest and recovery and a checkup appointment before returning to exercise³, although longer could be more appropriate for certain individuals. It is highly recommended to work with a pelvic floor physiotherapist when beginning your journey of returning to exercise. As mentioned above, many physiotherapists will even want to see you early in your third trimester to assess your current physical status, so they have a greater understanding of your body's baseline going into the postpartum period. Pelvic floor physiotherapy is covered by health care benefits under the physiotherapy portion. They can also help with C-section scar tissue massage.
- Begin with basic rehabilitation of the core, glutes, upper back and posterior chain. Gradually, you will be able to begin increasing exercise intensity and volume over time.
- Do not rush exercise volume and intensity until you start sleeping more. Keep things restorative and basic and monitor pelvic floor symptoms.
- Avoid sitting straight up from lying positions in the early postpartum; roll to the side then sit up to avoid placing undue strain on your recovering abdominal muscles. Work on core engagement exercises with a pelvic floor physiotherapist or postnatal exercise professional to help heal diastasis recti.

Some common physical postpartum issues after pregnancy and birth⁹:

- PFD - Pelvic Floor Dysfunction
 - Pain, pressure or feelings of “heaviness” in the pelvic floor, vagina, hips, lower back or diaphragm at rest, during exercise or during sexual intercourse.
- Diastasis Recti

- Tissue laxity between the rectus abdominis that does not return to normal muscle activation or tension postpartum. There can also be a gap between this muscle tissue, though the gap itself isn't the issue, rather the inability for the underlying tissue to generate tension when the core muscles are activated.
- POP – Pelvic Organ Prolapse
 - When one of your pelvic organs moves into a different position in your pelvis due to a lack of tissue support. Depending on the type of prolapse, it could mean urinary or fecal urgency/incontinence, pressure in the vagina, etc.
- Lumbrosacral or pelvic pain
 - Pain in the hips, lower back or pelvis at rest or during movement.
- C-Section scar discomfort
 - Tightness, pain, discomfort around the incision or the trunk and pelvic region.

Pelvic floor physiotherapy and strategic exercise rehabilitation will help all of these issues should you experience them. You may require strengthening or relaxation techniques to support your pelvic floor. See the resources section for information on pelvic health and specialized exercise professionals that can offer guidance during the postpartum period.

Nutrition

Recovery and Breastfeeding

An important aspect of postpartum recovery is to rest and eat nourishing foods. Having friends and family deliver healthy meals that contain nutrient dense sources of protein, fat, carbohydrate and vegetables is a great way to support yourself. Use prepared meals stored in the freezer during this time. Continue eating as healthy as you did when you were pregnant.

Here are some key considerations:

- Your body is very nutrient depleted after pregnancy and birth, especially if breastfeeding. You can continue taking prenatal vitamins and follow the nutrient guidelines from the pregnancy section for the duration of breastfeeding¹⁶ or longer, as nutrients from your body are transported to your baby through your breastmilk. You also need to replenish nutrients in your body after being pregnant and giving birth.
- Consume ample calories. Do not under eat at this time, your body needs to recover and it takes a tremendous amount of calories to make breast milk, should you choose to breast feed.
- Eat lots of healthy fat sources such as fish, avocado, coconut oil, butter, egg yolk, nuts/seeds and their butters for calorie intake, recovery, brain health and breast milk fat content.
- Bone broth by itself or in soups and stews will contain collagen and amino acids that support the recovery of connective tissue ¹⁷.

Other Considerations

Postpartum thyroid dysfunction (PPTD) occurs in 8.1% of the population¹²; this can affect mood, energy levels and fertility, and could result in permanent hypothyroidism. If you experience postpartum depression, discuss having blood tests done with your health care provider, which could include checking thyroid stimulating hormone (TSH), free thyroxine (FT4) and thyroid antibody (antiTPO) tests¹⁴.

Anemia is a deficiency of hemoglobin in the blood. It can be caused by blood loss after giving birth, and in this period is linked to postpartum depression in mothers¹¹. Work with your health care provider to determine whether this needs to be monitored.

Lifestyle

Your sleep quality and quantity will be affected in the acute postpartum phase. Sleeping when you can and as much as you can is important for recovery. Have your partner, friends or family members help with the baby to allow for this to happen.

Having a baby dramatically changes your life in a way that is difficult to truly prepare for. It is normal to have feelings of fatigue, overwhelm or grief for your old life, especially early on. Up to 80% of mothers experience the “baby blues” within the first week or two postpartum, due to the sudden shift in hormones after giving birth. If these feelings persist beyond 2 weeks, it could mean you are suffering from a perinatal mood disorder⁵.

Planning for Early Postpartum Support

- Have friends and family members scheduled to provide support during at least the first month postpartum. If this is not available, consider hiring a postpartum doula for extra support.
- Arrange additional childcare for older children.
- Have someone arrange a meal train within your network: someone delivers a meal to your house each day for a few weeks. Prepare freezer meals near the end of your pregnancy.
- Consider using a house cleaning service in the first couple of months (or more) postpartum if this is available to you.
- Breastfeeding can be challenging, please refer to the resources section for breastfeeding support and information links.

Perinatal Mood Disorders

Due to the combination of sleep deprivation and hormone fluctuations that occur during pregnancy and after birth, there is a risk of developing a perinatal mood disorder, even if you have no previous history of depression or anxiety. Other uncontrollable circumstances related to pregnancy, birth and the postpartum period can also contribute to this risk.

While these mood disorders are sometimes unavoidable, it's important to remember that it's no one's fault, and that they are temporary and treatable. Knowledge surrounding perinatal mood disorders can help you and your support system identify issues early on so you can get help. Working with a therapist during your pregnancy or early postpartum is a great early intervention tool if you are at a higher risk or want to mitigate your risk.

According to the Perinatal Mood Disorder Awareness website "postpartum depression and perinatal mood disorders affect approximately 15-30% of Moms within the first few years of giving birth." Because many do not come forward, this statistic is likely higher as many women go undiagnosed.

Some common perinatal mood disorders:

Postpartum depression (PPD)

Statistics show that up to 20% of mothers will experience PPD¹⁴. These statistics are from reported cases only, so the actual number is likely higher. Risk factors include, but are not limited to, previous history of depression, lack of social support, a traumatic pregnancy or birth, marital or financial stress, thyroid imbalances, breastfeeding complications, sleep deprivation, and health complications in the mother or baby. Symptoms include an overwhelming feeling of sadness, inability to bond with the baby, fatigue, lack of motivation, irritability and rage. It is important to note that although postpartum depression usually affects mothers, it can also affect adoptive parents and fathers.⁵

Postpartum anxiety (PPA)

This can occur alone or in combination with depression. Up to 10%¹⁴ of reported women suffer from PPA. Symptoms include constant worry that something bad will happen, racing heart rate, sleep and appetite disturbances, compulsive cleaning, irritability and rage. Subcategories of PPA include postpartum panic disorder and postpartum obsessive-compulsive disorder.

Postpartum Post Traumatic Stress Disorder

Postpartum PTSD occurs in up to 9% of reported women¹⁴. This usually is due to a traumatic event during pregnancy, birth or in the postpartum period. Symptoms include intrusive thoughts, flashbacks, avoidance of stimuli associated with the event, anxiety, panic and irritability.

Postpartum Psychosis

This is a rare illness and only occurs in 0.1-0.2% of births¹⁴. Postpartum psychosis is not a progression of postpartum depression or anxiety, rather a completely different illness. Symptoms include delusions or hallucinations, inability to sleep, paranoia, irritability, rapid mood swings. This occurs very suddenly and usually happens to someone already diagnosed with bipolar disorder or individuals who have had a psychotic episode. This illness is temporary and fully treatable but should be considered an emergency situation.

Resources

Preconception:

Book-The Fifth Vital Sign by Lisa Hendrickson-Jack https://www.amazon.ca/Fifth-Vital-Sign-Optimize-Fertility/dp/B07RBMJGHZ/ref=sr_1_1?dchild=1&keywords=the+fifth+vital+sign&qid=1591708734&sr=8-1

Perinatal exercise and pelvic floor physiotherapy:

Jessie Mundell Perinatal Exercise: <https://jessiemundell.com/>

Brianna Battles Perinatal Exercise: <http://www.briannabattles.com/>

Haley Shevener: Postnatal Exercise: <https://www.haleyshevener.com/>

2 the Core Perinatal Exercise Training: <http://www.2thecorecalgary.com/>

Optimum Perinatal Health Pelvic Floor Physiotherapy: <http://optimumperinatal.com/>

Lakeview Physiotherapy: <https://lakeviewphysio.ca/>

Munira Hudanpi Pelvic Floor Physiotherapy: <https://www.munirahudanipt.com/>

Gillian Hicks at CFD Wellness is a Post-Natal Exercise Specialist

Perinatal nutrition:

Lily Nichols RDN <https://lilynicholsrdn.com/>

- Book- Real Food for Pregnancy: https://www.amazon.ca/Real-Food-Pregnancy-Prenatal-Nutrition/dp/0986295043/ref=sr_1_1?keywords=real+food+for+pregnancy&qid=1583942468&sr=8-1
- Book-Real Food for Gestational Diabetes: https://www.amazon.ca/Real-Food-Gestational-Diabetes-Conventional/dp/0986295000/ref=sr_1_2?keywords=real+food+for+pregnancy&qid=1583942496&sr=8-2

Aviva Room MD for Women and Children's Health: <https://avivaromm.com/>

Calgary postpartum support:

Families Matter free programs for parents, babies and postpartum mood disorder support groups: <https://www.familiesmatter.ca/our-programs/>

Moss Postpartum House-free resources, services, groups and events for parents and babies: <https://www.mosspostpartum.com/>

Pregnancy and Infant Loss Support Centre- free resources, services, groups and events for parents after pregnancy and infant loss: <https://www.pregnancyinfantlosssupportcentre.com/>

Mommy Connections workshops, events and gatherings: <https://mommyconnections.ca/calgary>

Calgary Distress Centre: <https://www.distresscentre.com/> 403-266-HELP (4357) open 24 hours

Postpartum support books:

BOOK This Wasn't What I was Expecting by Karen Kleiman: https://www.amazon.ca/This-Isnt-What-Expected-2nd/dp/0738216933/ref=sr_1_2?keywords=karen+kleiman&qid=1583961087&sr=8-2

BOOK Good Moms Have Scary Thoughts by Karen Kleiman: https://www.amazon.ca/Good-Moms-Have-Scary-Thoughts/dp/1641701307/ref=sr_1_1?keywords=karen+kleiman&qid=1583961124&sr=8-1

BOOK The Fourth Trimester: https://www.amazon.ca/Fourth-Trimester-Postpartum-Balancing-Restoring/dp/B07CQ6GZHP/ref=sr_1_1?crid=C14WZWGP2T28&keywords=the+fourth+trimester&qid=1585670638&sprefix=the+fourth+tr%2Caps%2C194&sr=8-1

Breastfeeding/feeding baby support:

<https://www.healthyparentshealthychildren.ca/im-a-parent/feeding-your-baby>

<https://www.albertahealthservices.ca/info/Page14357.aspx>

Infant sleep support:

www.takingcarababies.com

<https://blissfulnights.ca/>

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