What if there was a pill that provided all these benefits...

PREGNANCY AND POSTPARTUM EXERCISE MYTHS AND FACTS

Exercise during Pregnancy: A History
- 1950's: avoid "violent" activities; stick to "gentle" activities like housework and easy walking
- 1960's: the standard begins to unravel
- 1970's: studies published showing benefits of exercise during pregnancy
- 1980's: more science, more questions
- 1990's: evidence-based guidelines...with some holes
- 2000's: still some gaps and contra-indications in the literature
- 2010's: continued support for exercise during pregnancy – and more emphasis on risks of NOT exercising
Current Pregnancy Exercise Guidelines:

- **Vague**
- And
- **General**

Pregnancy Myth #1:

- I shouldn’t start a new exercise program when I’m pregnant.

Women who BEGAN exercise programs while pregnant:

- Improved aerobic fitness and muscular strength, had comparable size infants, significantly fewer cesarean deliveries, and faster postpartum recovery. (Price et al, 2012)
- Had no difference in birth weight or length of gestation (Haakstad & Bo, 2011)
Pregnancy Myth #2:

- I should keep my heart rate under 140 BPM.

Heart rate and pregnancy

- There is an increase in resting heart rate by 10-15 beats per minute in pregnant women. (Avery et al, 2001)
- Response of sympathetic system to strenuous exercise can be blunted. (Avery et al, 2001)
- Relationship between heart rate and oxygen consumption altered during pregnancy. (Pivarnik et al, 2002)

ACOG Guidelines

The 15-Grade Scale for Ratings of Perceived Exertion

- 0
- 7 Very, very light
- 9 Very light
- 10
- 11 Fairly light
- 12
- 13 Somewhat hard
- 14 Hard
- 16
- 17 Very hard
- 18
- 19 Very, very hard
- 20
Pregnancy Myth #3:

❖ Lifting weights is dangerous while pregnant; I should stick to walking and prenatal yoga.

ACOG Guidelines

Examples of Safe and Unsafe Physical Activities During Pregnancy:

The following activities are safe to initiate or continue:
- Walking
- Swimming
- Stationary cycling
- Low-impact aerobics
- Yoga, modified
- Pilates, modified
- Running or jogging
- Racquet sports
- Strength training

The following activities should be avoided:
- Contact sports (e.g., ice hockey, boxing, soccer, and basketball)
- Activities with a high risk of falling (e.g., downhill snow skiing, water skiing, surfing, off-road cycling, gymnastics, and horseback riding)
- Scuba diving
- Sky diving
- “Hot yoga” or “Hot Pilates”

Current Research?

- Pregnant women can safely do up to 35 minutes of high-intensity aerobic exercise (at 80 to 90 percent of their maximum heart rate) at air temp of up to 77 degrees F and a relative humidity of 45 percent.
- Can safely do aquatic aerobics in water temps ranging from 83.8 to 92.1 degrees F for up to 45 minutes.
ACOG Guidelines

**Absolute Contraindications to Aerobic Exercise During Pregnancy**

- Hemodynamically significant heart disease
- Restrictive lung disease
- Incompetent cervix or cerclage
- Multiple gestation at risk of premature labor
- Persistent second- or third-trimester bleeding
- Placenta previa after 26 weeks of gestation
- Premature labor during the current pregnancy
- Ruptured membranes
- Preeclampsia or pregnancy-induced hypertension
- Severe anemia

**Relative Contraindications to Aerobic Exercise During Pregnancy**

- Anemia
- Unevaluated maternal cardiac arrhythmia
- Chronic bronchitis
- Poorly controlled type 1 diabetes
- Extreme morbid obesity
- Extreme underweight (BMI less than 12)
- History of extremely sedentary lifestyle
- Intrauterine growth restriction in current pregnancy
- Poorly controlled hypertension
- Orthopedic limitations
- Poorly controlled seizure disorder
- Poorly controlled hyperthyroidism
- Heavy smoker

**Warning Signs to Discontinue Exercise While Pregnant**

- Vaginal bleeding
- Regular painful contractions
- Amniotic fluid leakage
- Dyspnea before exertion
- Dizziness
- Headache
- Chest pain
- Muscle weakness affecting balance
- calf pain or swelling
Pregnancy Myth #4: Exercising will make my pregnancy symptoms worse.

■ Exercise during pregnancy can reduce low back pain. (Garshasbi & Faghhi Zadeh, 2005; Shiri et al, 2018)
■ Exercise is associated with reduced risk of pelvic girdle pain (Andersen et al, 2015)
■ Exercise may help reduce presence of diastasis rectus abdominus (abdominal separation) (Chiarello et al, 2005; Benjamin et al, 2014)

Pregnancy Myth #5:

■ If I run throughout my pregnancy, I will “bounce back” more quickly.
Postpartum Exercise Myths and Facts

Postpartum Myth #1:

- I can safely resume all exercise after my 6 week check up.

OR

- I can run immediately postpartum because I’m a runner.
What does the research say about postpartum return to exercise?

Postpartum physiological changes – abdominal wall
- Diastasis rectus abdominus (DRA) present in 100% of women in late stages of pregnancy (measured via diagnostic ultrasound) ([da Mota et al., 2015](#))
- DRA present in 60% of women at 6 weeks postpartum, 45% at 6 months, and 33% at 12 months ([Sperstad et al., 2015](#))
- The rectus abdominus starts to thicken and the inter-rectus distance decreases after 2 months, but does not return to control values at 12 months postpartum ([Coldron et al., 2008](#))

Postpartum physiological changes – pelvic floor
- Rectal branch of the pudendal nerve stretches up to 35% ([Lien et al., 2005](#))
- Increased latency in pudendal nerve in women with vaginal delivery or those who had a c-section after laboring – 12 of 22 women at 6 weeks postpartum and 4 of 22 at 6 months postpartum ([Sultan et al., 1994](#))
- Less than half (33-40%) of women achieve a normal, atraumatic vaginal delivery ([Caldwell-Hall et al., 2018](#))
- 64% of women have at least 1 “bothersome” symptom of pelvic floor dysfunction 1 year after their first delivery ([Lipschedt et al., 2015](#))
Postpartum physiological changes – muscle activation

- Decrease in trunk flexor strength and endurance at 8 weeks and 26 weeks postpartum (Deering et al, 2018)
- 57% of women in immediate post-partum setting perform pelvic floor contractions (Kegels) incorrectly (Neels et al, 2018)
- Women with DRA have significant decrease in trunk rotation strength and more difficulty performing a sit up (Hills et al, 2018)

Postpartum Myth #2:

- I shouldn’t do ANY exercise until after my 6 week check up.

Current postpartum exercise guidelines:

- Postpartum exercise linked to improved mood/decreased anxiety and depression, improved cardiorespiratory fitness, and weight control/loss. (Evenson et al, 2014)
- “Greater clarity in guidelines would be more useful to both practitioners and the women they serve.” (Evenson et al, 2014)
Postpartum Exercise Truth: Women will be ready to return to exercise within a variable time frame at a variable intensity.

Postpartum Myth #3:
- I had a C-section so my pelvic floor is totally fine.
  - Pregnancy is associated with bladder neck lowering, increased bladder neck mobility, pelvic organ descent, decreased levator ani strength, and decreased urethral resistance (Van Geelen et al, 2018)

Postpartum Myth #4:
I just had a baby – I can expect certain symptoms.

It’s normal to:
- Leak urine when I exercise/cough/sneeze.
- Have painful sex
- Continue to have back pain
Practical advice to new moms:

1. Start where you left off
2. Increase gradually over time – 10% increase per week in intensity OR duration
3. The best exercise is what you enjoy
4. No exercise is a BAD exercise, IF it can be done without pain or symptoms
5. Consider symptoms a CALL TO ACTION
6. Request pelvic floor physical therapy – especially if you have lingering symptoms of back or pelvic pain, incontinence, pelvic heaviness/prolapse, or pain with intercourse

Pelvic Floor PT locators:

- [http://pt.womenshealthapta.org](http://pt.womenshealthapta.org)
- [https://pelvicrehab.com](https://pelvicrehab.com)
- [https://pelvicguru.com/2016/02/13/find-a-pelvic-health-professional/](https://pelvicguru.com/2016/02/13/find-a-pelvic-health-professional/)


