

Specific Considerations and Safety Issues Regarding Exercise During Pregnancy!

Why prenatal session should be supervised by an exercise professional?

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Exercise should be safe – there should be minimum injury risk to both mother and fetus



Exercise should be comfortable – especially as the pregnancy progresses

Pregnant women must keep **BE ACTIVE** if no medical or obstetric complications are present.



Safety first

It should be noted that there is no strong scientific evidence that some sports activities are indeed dangerous for pregnancy and fetal development.



Box 3. 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 (eg, ice hockey, boxing, soccer, and basketball)
- Activities with a high risk of falling (eg, downhill snow skiing, water skiing, surfing, off-road cycling, gymnastics, and horseback riding)
- Scuba diving
- Sky diving
- "Hot yoga" or "hot Pilates"

*In women with uncomplicated pregnancies in consultation with an obstetric care provider.

[†]Yoga positions that result in decreased venous return and hypotension should be avoided as much as possible.

[‡]In consultation with an obstetric care provider, running or jogging, racquet sports, and strength training may be safe for pregnant women who participated in these activities regularly before pregnancy.

^{§§}Racquet sports wherein a pregnant woman's changing balance may affect rapid movements and increase the risk of falling should be avoided as much as possible.

Physical Activities During Pregnancy

Walking, swimming, stationary cycling, muscular training, low-impact aerobics, modified yoga, modified Pilates



The most appropriate and safe physical activities



Non-recommended physical activities

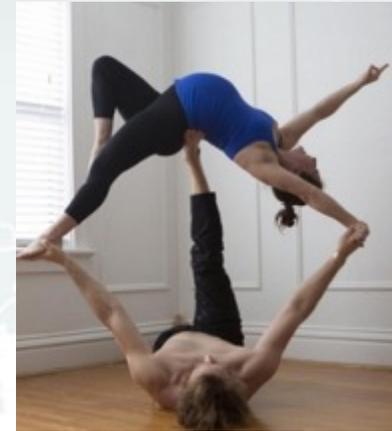
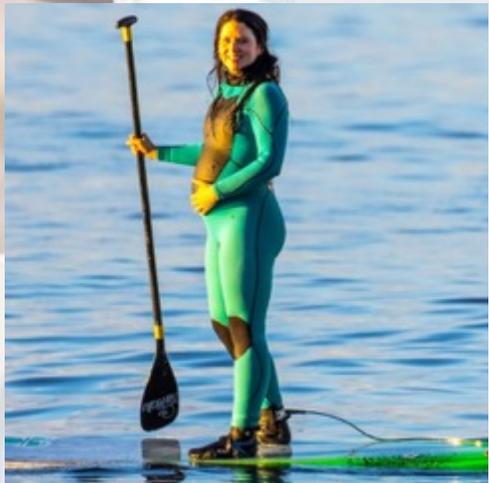
Contact sports, activities with high risk of falling, scuba diving, skydiving, hot Pilates, and hot yoga



Safe for pregnant women who participated in these activities regularly before pregnancy



Running, jogging, cross-country skiing, racquet sports





The Prenatal Exercise Specialist should work with pregnant women after she receives **MEDICAL CLEARANCE FOR EXERCISE** from her gynecologist or general practitioner.



Pre-exercise health screening regarding possible contraindications for exercising during pregnancy

PARmed-X FOR PREGNANCY

Physical Activity Readiness Medical Examination

PARmed-X for PREGNANCY is a guideline for health screening prior to participation in a prenatal fitness class or other exercise.

Healthy women with uncomplicated pregnancies can integrate physical activity into their daily living and can participate without significant risks either to themselves or to their unborn child. Postulated benefits of such programs include improved aerobic and muscular fitness, promotion of appropriate weight gain, and facilitation of labour. Regular exercise may also help to prevent gestational glucose intolerance and pregnancy-induced hypertension.

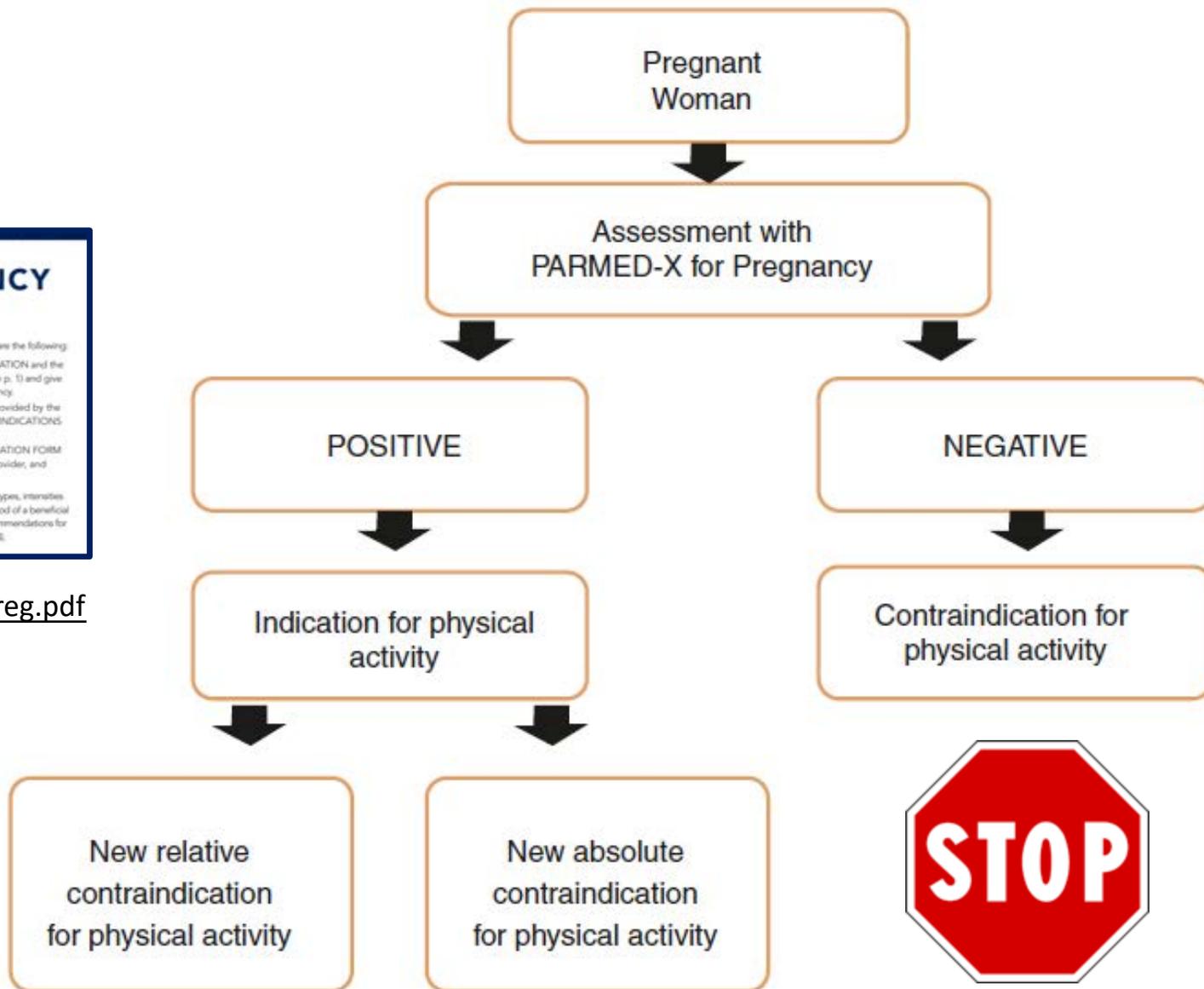
The safety of prenatal exercise programs depends on an adequate level of maternal-fetal physiological reserve. PARmed-X for PREGNANCY is a convenient checklist and prescription for use by health care providers to evaluate pregnant patients who want to enter a prenatal fitness program and for ongoing medical surveillance of exercising pregnant patients.

Instructions for use of the 4-page PARmed-X for PREGNANCY are the following:

1. The patient should fill out the section on PATIENT INFORMATION and the PRE-EXERCISE HEALTH CHECKLIST (PART 1, 2, 3, and 4 on p. 1) and give the form to the health care provider monitoring her pregnancy.
2. The health care provider should check the information provided by the patient for accuracy and fill out SECTION C on CONTRAINDICATIONS (p. 2) based on current medical information.
3. If no exercise contraindications exist, the HEALTH EVALUATION FORM (p. 3) should be completed, signed by the health care provider, and given by the patient to her prenatal fitness professional.

In addition to prudent medical care, participation in appropriate types, intensities, and amounts of exercise is recommended to increase the likelihood of a beneficial pregnancy outcome. PARmed-X for PREGNANCY provides recommendations for individualized exercise prescription (p. 3) and program safety (p. 4).

<http://www.csep.ca/cmfiles/publications/parq/parmed-xpreg.pdf>



Absolute Contraindications to PA

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



Relative Contraindications to PA

Severe anemia
Unevaluated maternal cardiac dysrhythmia
Chronic bronchitis
Poorly controlled type 1 diabetes mellitus
Extreme morbid obesity
Extreme underweight
History of extremely sedentary lifestyle
Poorly controlled hypertension
Orthopedic limitations
Intrauterine growth restriction in current pregnancy
Poorly controlled seizure disorder
Poorly controlled hyperthyroidism
Heavy smoker



The Qualified Pregnancy Exercise Specialist should be a member of a multidisciplinary task force



Other questions regarding maternal health and pregnancy itself that will affect exercise prescription:

What is the woman's age?

Is it the first pregnancy?

How were previous pregnancies?

On which stage of pregnancy is she?

What are her occupation and other leisure activities?

How is her self-perception of health?

When to start exercise during pregnancy?

Is she aware of relative and absolute contraindications for exercising?

Which are the main sign and symptoms related to pregnancy she is experiencing?



Specific considerations and safety issues during pregnancy

Weight Gain
and Caloric
Intake

Dizziness

Sportswear
and Shoes

Warning sign
to stop
exercising

Falls and
Injury

Heat, Humidity, and
Environment

Session
Organization

Hydration and Urinary
Incontinence

Exercise Supervision

Weight Gain and Caloric Intake

High-intensity or prolonged exercise in excess of 45 min can lead to **HYPOGLYCEMIA**:

- Adequate caloric intake before exercise (or limiting the exercise session) is essential to minimize this risk.

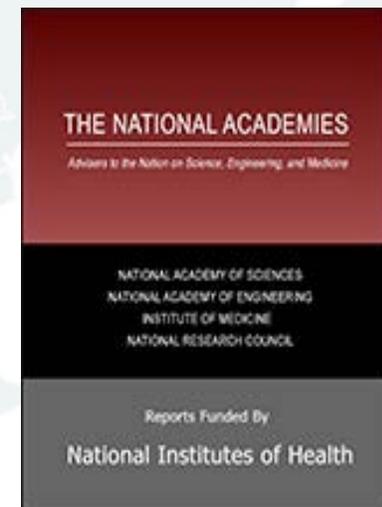
During pregnancy, the
**metabolic demand increases
by 300 kcal/day**



Women who exercised more than **3 times/week** for **6–9 months** had a **lower risk of GAINING EXCESS WEIGHT** during pregnancy (Harris et al., 2015).

Recommendation for Total Weight Gain During Pregnancy, by Prepregnancy BMI

Pregpregnancy BMI	Total Weight Gain	
	Range in kg	Range in lbs
Underweight ($< 18.5 \text{ kg/m}^2$)	12.5–18	28–40
Normal weight ($18.5\text{--}24.9 \text{ kg/m}^2$)	11.5–16	25–35
Overweight ($25.0\text{--}29.9 \text{ kg/m}^2$)	7–11.5	15–25
Obese ($\geq 30.0 \text{ kg/m}^2$)	5–9	11–20

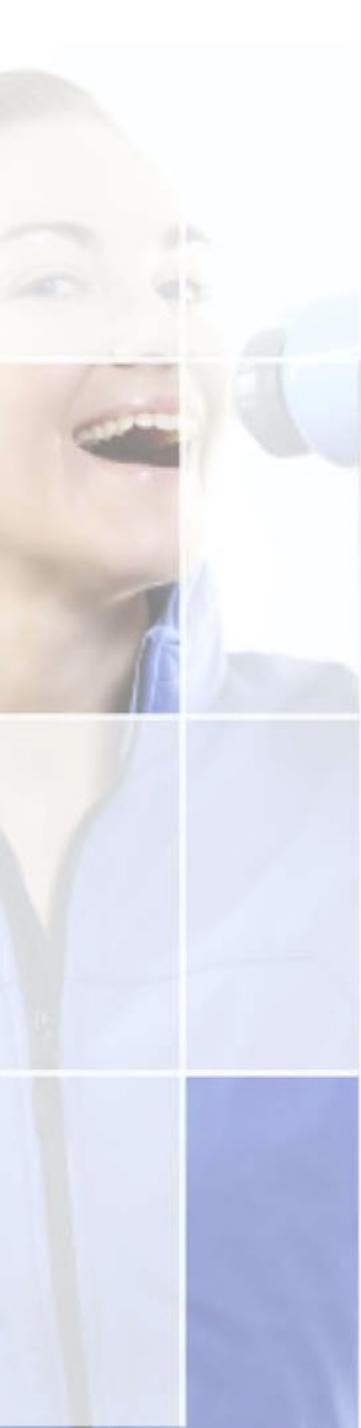


Hydration and Urinary Incontinence

- Pregnant women should **drink WATER before, during, and after exercise.**
- But... pregnant women also experience **URINARY INCONTINENCE during exercise** because of mechanical and anatomical changes.

To minimize urinary incontinence:

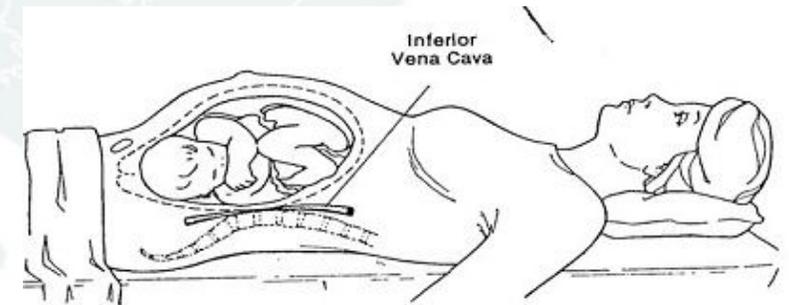
- practicing pelvic muscle-strengthening exercises
- avoid breath holding and use of Valsalva maneuver
- minimizing high-impact activities when incontinence symptoms appeared
- use the toilet before activity
- using an external pad during exercise.



Dizziness

Should be used with caution if woman feels symptoms:

- Activity, using the Valsalva maneuver, prolonged **ISOMETRIC CONTRACTION**, and **MOTIONLESS STANDING**
- **FAST MODIFICATIONS** of the movement plan (e.g., stand to sit and sit to stand)
- Strong **ABDOMINAL COMPRESSION/STRAIN** during 2nd and 3rd trimester
- Physical activity in the **SUPINE POSITION** or to modify this position after week 16 of pregnancy.



Supine Hypotensive Syndrome

Heat, Humidity, and Environment

- Avoid exercising in a **HOT and HUMID ENVIRONMENT!!!**
- Prolonged exercise better to perform in **controlled environmental conditions** (air conditioning).
- Pregnant women are quite sensitive to smell. Exercise should be performed in a clean environment, **avoiding AIR POLLUTION and BAD SMELL** settings.
- When running or cycling, **ROCKY TERRAINS or UNSTABLE GROUNDS should be avoided**, since the joints are more lax in pregnancy, and ankle sprains and other injuries may occur.



Sportswear and Shoes

- **Sportswear** should be light and comfortable and allow perspiration.
- A proper **pregnancy bra** should provide comfort and support during exercise
- Appropriate **shoes** that provide shock absorption and stability are particularly important for pregnant women.

Perfect fit for pregnancy and postnatal exercise

Seamless bamboo-rich inner bra

Unique back panel lifts and holds for maximum performance

Waist band supports your hips and pelvis

Hi-performance luxe fabric and breathable mesh panels



Session Organization

5–10-min **WARM-UP** period, including slow walk, stretching, or movements that will be performed during the main part of the session.

MAIN PART

5-10 min **COOLDOWN** period, including breathing exercises, stretching, pelvic floor training.





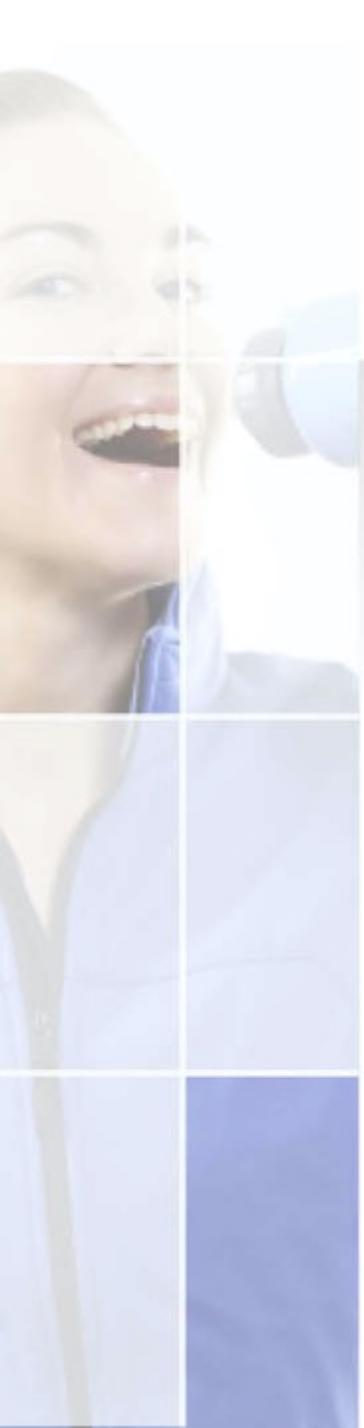
SAFETY CONSIDERATIONS summary

AVOID or BE CAREFUL:

- exercise in warm/humid environments
- rapid bouncing, swinging and vigorous stretching
- activities which involve danger of falling and trauma

MAINTAIN adequate nutrition and hydration – drink liquids before and after exercise

KNOW your limits – pregnancy is not a good time to train for athletic competition





Warning Signs to Discontinue Exercise While Pregnant



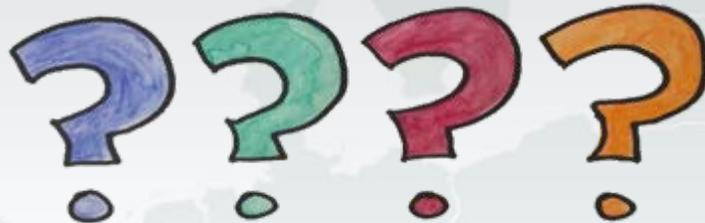
Why prenatal session should be supervised by an exercise professional?



HELLO
my name is
Influencer



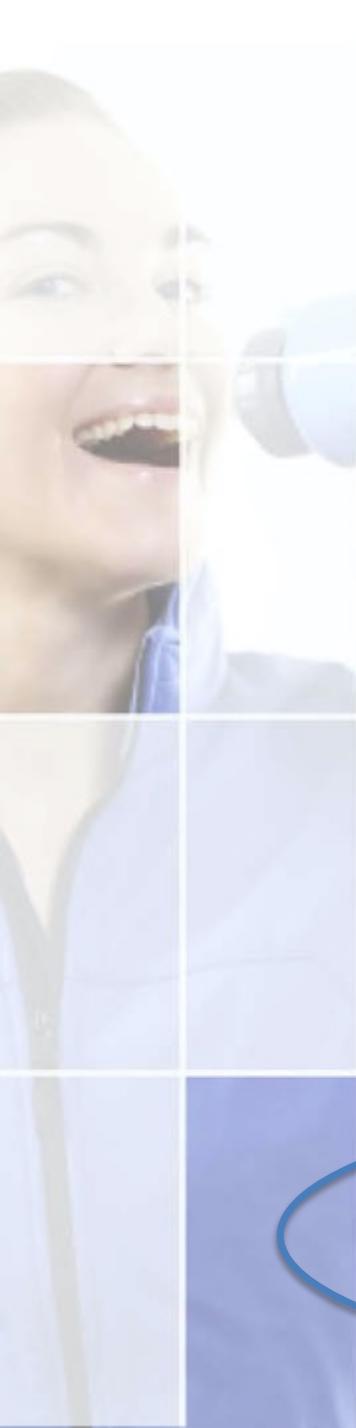
Does your pregnancy exercise program need a trainer?



Are you really a competent **EXPERT** in human anatomy, biochemistry, biomechanics, physiology?

Do you really understand **how the body is affected by PREGNANCY** and different **PHYSICAL LOAD**, and how to combine them?

Are you sure you know the **PROBLEMS** with your body's functionality?



Uncertainty about
how to exercise
safely during
pregnancy



Often cited as
reasons for
reducing or
ceasing activity

Concerns about
harming the baby



Exercise Professionals should play a **KEY ROLE**
in EDUCATING pregnant women and
ENCOURAGING them to exercise



During pregnancy women need to feel safe and professionally framed while exercising

- Identify needs and opportunities
- Ensure proper technique
- Ensure the progression (intensity and complexity)
- Provide confidence

Exercise Supervision

Provide the safest possible training and testing environment

This could be done through group or individual exercise programs that meet their needs and objectives.

Provide regular feedback, positive reinforcement, and behavioral strategies for lifestyle



Prenatal fitness coaching isn't about cutting out all the exercises someone loves to do for the next 9 months.



Instead of putting the focus on what SHE CAN'T, turn the attention to all that SHE CAN DO.



Helping the body function optimally, supporting the body's changes throughout pregnancy, and preparing your client for GIVING BIRTH.

PRENATAL FITNESS

However, studies shows that the **majority of exercise professionals present a LOW LEVEL OF KNOWLEDGE about PA during pregnancy** (Worska & Szumilewicz 2015)



Participant



Fitness trainer

LET'S **THINK** ABOUT IT.



How many of our clients in H&F clubs are women?

How many of them will maintain an exercise programme during pregnancy?

How many of them will come back immediately after delivery or six months after delivery?

How many of exercise specialists in your fitness club are certified and able to supervise pregnant and post-natal women?



There is a lack of well-designed prenatal exercise programmes in the market



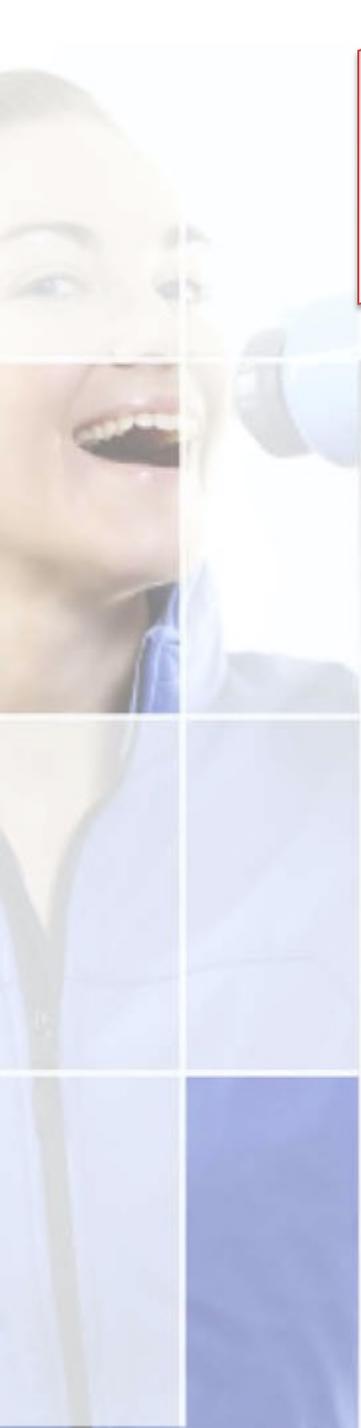
It is **NOT ENOUGH** for pregnant women just to join **GENERAL, NONSPECIFIC** classes in fitness clubs.



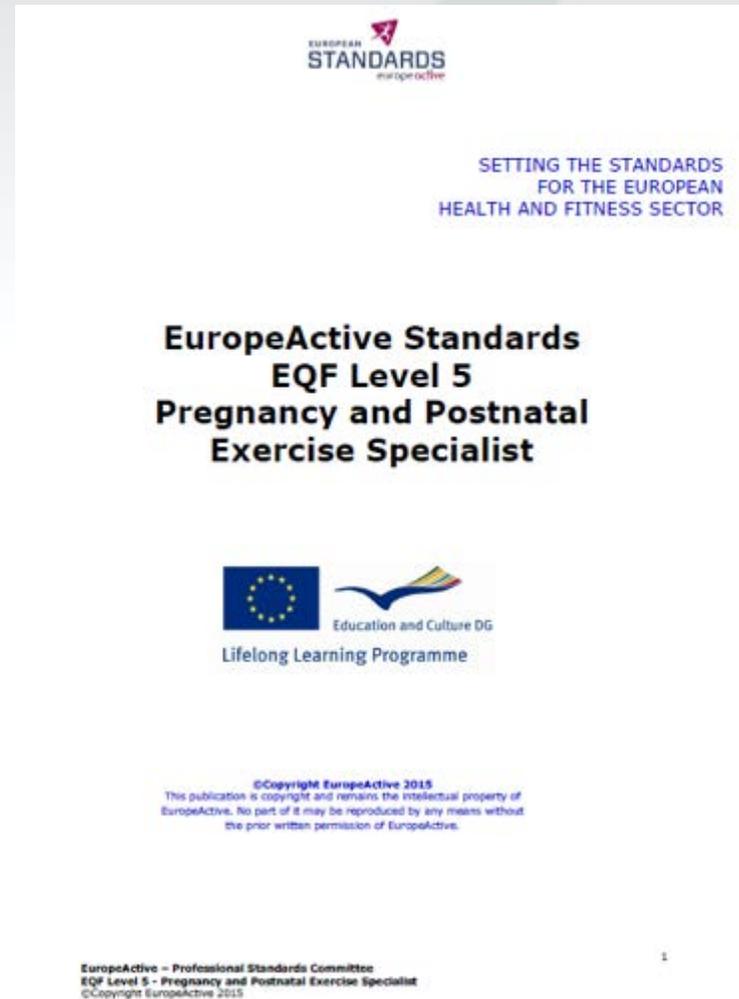
Well trained and qualified **Exercise Professionals** are able to conduct pre- and postnatal classes and/or do **personal training**.



This can **increase PARTICIPATION RATES** among pre- and postnatal clients and **ensure SAFETY** and **EFFECTIVENESS**.



TEG group meeting on the development of standards for exercise for professional pregnancy and the postpartum period



2015 Madrid



Remember that it is normal to gain weight during pregnancy

Accept that your body shape will change during pregnancy

Enjoy your pregnancy as a unique and meaningful experience



THANK YOU

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europe active
MORE PEOPLE | MORE ACTIVE | MORE OFTEN

