

# **Sports Medicine Australia Guidelines.**

## **Participation of the pregnant athlete in contact and collision sports**

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### **INTRODUCTION**

The safe participation of Australians in sport and healthy physical activity at all stages of life is the primary concern for all involved with Sports Medicine Australia.

Maternal and foetal responses to exercise may vary with pregestational maternal fitness level, coexisting medical conditions or pregnancy complications.

**For these reasons exercise counselling to the pregnant sportswoman must be done on an individual basis.**

These guidelines & the Exercise in Pregnancy Fact Sheet are intended to provide recommendations on safe participation in contact and collision sports during pregnancy.

### **GUIDELINES FOR SAFE PARTICIPATION IN CONTACT AND COLLISION SPORTS**

**Modifications based on American College of Obstetricians and Gynecologists Guidelines document (1994)**

#### **1. OVER HEATING**

**1st Trimester** (early)- foetus is susceptible to sustained ↑ of mother's body core temperature

Slight risk – could theoretically cause birth defects.

(Especially in prolonged exercise in the heat eg. distance running)

##### ***Recommendations***

- No exercise in hottest or most humid times of day Clothing- light, open weave
- Regular fluid consumption
- Indoors: room cool & ventilated
- Team sports- interchange frequently

#### **2. LEVEL OF EXERTION**

- Fitness level throughout pregnancy - no affect on birth outcome
- Do not ↑ level of exercise once pregnant.
- Submaximal maternal exercise (70%VO<sub>2</sub> )
- High intensity exercise should not >15 minutes (continuous exercise)
- Regular exercise is preferable to occasional ex.

**Note: well trained athletes can sustain >HR changes & longer duration than less fit individuals**

##### ***Recommendations***

- Avoid maximal intensity exercise.
- Competitive athletes- Exercise at moderate intensities of <75% HR<sub>max</sub>
- A thorough cool down period of gentle exercise.

### 3. RISK OF INJURY

- Redistribution of body weight (COG forward)- can alter sense of balance/co-ord. - can ↑risk of falls in second half of pregnancy
- By **2nd Trimester** the foetus moves higher and is unprotected by the pelvis there is ↑ risk of damage to foetus itself by direct impact
- Higher risk of ligament injury due to ↑ laxity of the joints (hormonal changes)

*These are all theoretical considerations only*

#### **Recommendations**

- be aware of these physical alterations and consequent limitations and be cautious while participating
- excessive stretching & jerky ballistic movements should be avoided

### 4. HEALTH STATUS

Some medical conditions will preclude sporting participation in pregnancy. The Physician or Obstetrician will assess the dangers of exercise (ACSM Guidelines) with any of the following conditions:

- Heart, Respiratory, Renal or Infectious disease
- Obesity or underweight
- Endocrine or Obstetric conditions

If the athlete experiences any of the following symptoms during exercise she should stop and contact her physician immediately:

- higher than usual HR
- decreased foetal movements
- amniotic fluid leakage
- uterine contractions
- vaginal bleeding
- sudden swelling of ankles, hands or face

### 5. STAGE OF PREGNANCY

- Trimester 1: foetus is contained in the pelvic girdle which protects foetus from blows to the abdomen.
- As pregnancy continues the foetus moves higher in the abdomen - more susceptible to direct blows to the region.

Trimester 2 & 3: individual player will know from discomfort and lack of co-ordination when to stop participating

#### **RISK CLASSIFICATIONS AND RECOMMENDATIONS**

In determining the relative risk of sports for the pregnant athlete the following classifications can be used:

#### **NON CONTACT SPORTS:**

- virtually no risk of falling, or contact with projectile/person (eg swimming, low impact aerobics, stationary cycling).
- majority are suitable during all stages of pregnancy providing:
  - 1) the athlete is under appropriate medical supervision; and
  - 2) the degree of exertion is controlled.
- if maintaining fitness is the goal of sports participation- should consider changing to these sorts of lower risk activities.

### **LIMITED CONTACT SPORTS:**

- Contact occurs minimally (either legally or illegally) or there is a small risk of falls or contact with a projectile (eg netball, touch football, racquet sports).

In normal pregnancy these sports are suitable during the first trimester. Ongoing consultation with the Physician or Obstetrician may make participation possible into the second trimester.

### **UNLIMITED CONTACT AND COLLISION SPORTS:**

- Contact or collision is frequent and may be quite forcible (eg soccer, baseball, football, martial arts, judo, gymnastics).
- high risk of: falls, blows to abdomen or contact with projectile.

In a "normal" pregnancy, participation only be recommended during the first trimester.

### **SPECIFICALLY EXCLUDED SPORTS:**

- Carry a high risk from falls, physical trauma or other risks
- Should not be undertaken once she knows or suspects pregnancy eg. scuba diving, novice downhill skiing, ice skating, horse riding, martial arts, gymnastics

### **SUMMARY**

#### **When exercising whilst pregnant women should:**

- Consult closely with their doctors, advise their coach and modify training accordingly
- Be aware of the risks to mother and foetus
- Cease participation and immediately contact her doctor if a medical or obstetric complication should occur

#### **When exercising whilst pregnant women should:**

- Not ↑ level of training or commence new competitive sport
- Pay special attention to
  - Core body temperature
  - Fluid intake: before, during and after exercise
  - Intensity of exercise
  - Warm up and cool down (not supine)