

## CrossFit Claremont Pregnancy Information

### 'While pregnancy is not a time for PRs and 1RMs pregnant women can still participate safely in CrossFit'

*At CrossFit Claremont all coaches are aware of the importance of privacy around this personal information (especially prior to 12 weeks) and full coach-client confidentiality can be assured. We can better advise you if you make your coaches aware of your pregnancy as soon as possible.*

*We also request that all members follow the 'Fitness' track for the duration of their pregnancy and return to training for a minimum of 1 month. Training during this period is for fitness and health, not performance.*

Pregnancy is a time of significant physiological adaptation in a woman's life. The benefits of exercise during this time are well evidenced and are proven to extend, to both mother and foetus. It is important to note that the Royal Australian and New Zealand College of Obstetricians and Gynaecologists state explicitly, **"regardless of baseline level of fitness and previous exercise routine, pregnancy is not a time for serious competition or aiming to reach peak lifetime fitness"**.

In order to get the benefits of exercise without any negative side effects it is important to understand the cardiovascular, respiratory, metabolic and musculoskeletal changes that occur during this time. Throughout your pregnancy your coach is going to make scaling recommendations to exercises and workouts, these recommendations will take into account your personal circumstances as well as a range of factors, detailed below.

#### **Increase in Body Weight**

The increase in body weight as pregnancy progresses is associated with increased loading at the joints. For this reason, weight-supported activities in the later stages of pregnancy such as stationary cycling or seated ski erg may be more comfortable compared with weight-bearing exercises such as running or even walking.

#### **Change in Weight Distribution**

The altered centre of gravity resulting from the change in weight distribution as pregnancy progresses may influence balance. Accordingly, modification of the exercise routine to minimise or avoid fast changes in direction is a sensible precaution. Activities requiring a high level of balance such as 'box jumps' become increasingly dangerous and therefore best avoided.

#### **Increase in Ligament Laxity**

The increase in ligament laxity associated with pregnancy may have implications for the risk of injury. For this reason, pregnant members should take care with particular movements such as those involving jumping, sudden direction change or heavy lifts (particularly in challenging joint positions such as overhead squats). Stretching should always be performed in a slow and controlled manner.

### Decrease in Blood Pressure

To minimise the risk of dizziness or fainting associated with a reduction in blood pressure, the pregnant woman should take care to avoid rapid changes in posture (i.e. from lying or sitting to standing). Exercise should always be completed with a slow and sustained cool-down and never stopped suddenly.

### Increase in Resting and Submaximal Heart Rate

Increase in resting and submaximal heart rate has implications for monitoring of exercise intensity using heart rate, since lower workloads are required to reach pre-pregnancy target heart rates. For this reason, pregnancy-specific heart rate zones are recommended (Table 1) and best used in combination with ratings of perceived exertion (aiming for a maximum of 12-14 the below 6-20 scale (Table 2). If that feels too complicated a good guide is to ensure you are able to maintain a breathy conversation throughout the entirety of the work out if you can then that's a good indicator you are pushing to hard.

Table 1. Target heart rate zones for normal-weight pregnant women [24]

Maternal age	Target heart rate (bpm)
< 20 years	140 – 155
20 – 29 years	135 – 150
30 – 39 years	130 – 145
> 40 years	125 – 140

Table 2. Rating of perceived exertion

6	
7	very, very light
8	
9	somewhat light
10	
11	fairly light
12	
13	somewhat hard
14	
15	hard
16	
17	very hard
18	
19	very, very hard
20	

### Increase in Metabolic Rate

Animal studies suggest that a substantial increase in core body temperature during embryogenesis is associated with congenital defects. Despite a lack of evidence in humans, the pregnant woman should take precautions to avoid exercising in high temperatures and humidity, ensure adequate hydration and wear loose-fitting clothing. As a guide, up to 35 min of high-intensity exercise (~90% of maximum heart rate) in air temperatures up to 25°C and 45% relative humidity is unlikely to attain a core temperature exceeding 39.0°C (considered dangerous temperature threshold).

### **Enlarged Uterus**

As the uterus grows with advancing pregnancy, the weight of the enlarged uterus may obstruct venous return. Therefore, pregnant women in the second and third trimesters should avoid performing exercises in a supine position (such as sit ups, v ups or hollow rocks) for prolonged periods of time. All movements should be slow and steady and performed with proper breathing technique (i.e. exhalation on exertion). It is sensible to avoid heavy weight-lifting that requires straining, hold your breath or that are isometric in nature. Walking lunges are also best avoided to prevent injury to pelvic connective tissue.

### **Growing Foetus**

Although there is no strong scientific evidence regarding the risk of participation in activities with an inherent risk of falling (e.g, muscle ups, toes to bar) or impact trauma to the abdomen (i.e. team games), common-sense suggests that these activities may be best avoided, or at least undertaken with awareness and serious consideration of the potential risks.

### **Weakened Pelvic Floor**

Your pelvic floor muscles are an important group of muscles that sit at the bottom of your pelvis and act like a hammock or trampoline to hold up your pelvic organs, these muscles have an important role in continence aka stopping leakage when you laugh, cough, run, jump, bladder bowel and sexual function. Throughout your pregnancy these muscles get put under increasing load as the weight of you baby increases, placing extra weight on not only these muscles but your bowel and bladder as well.

Activities that involve jumping or bouncing such as skipping may add additional load to the pelvic floor muscles and are probably best avoided. Targeted exercises to strengthen the pelvic floor muscles are recommended throughout and following your pregnancy. These are very simple to do and can be integrated into warmups or day to day activities. The best news is no one even needs to know you are doing them. These exercises will also assist recovery post-delivery. For more information about how to complete these exercises the following website and video link are available.

<http://www.pelvicfloorfirst.org.au/pages/videos.html>

<http://www.pelvicfloorfirst.org.au/pages/pelvic-floor-muscle-exercises-for-women.html>

While pregnancy is not a time for PRs and 1RMs pregnant women can still participate safely in CrossFit. At CrossFit Claremont our programming is infinitely scalable to accommodate your changing physiology during this time. By working closely with our coaches, we can ensure your safety whilst still giving you all the benefits of exercise and community throughout your pregnancy.

*Information adapted for CrossFit Claremont from: 'Exercise during pregnancy' by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists. Updated March 2020.*