



PLAYING FOR TWO

For some players, motherhood and pregnancy are exciting times. For others, finding out they are pregnant can lead to a lot of questions and concerns. How will this impact my tennis career, my lifestyle, or even my training? Can I still compete while pregnant?

Reputable international obstetric medicine colleges, such as the American College of Obstetrics and Gynecology (ACOG), recognize the importance of exercise during pregnancy for both the mother’s and the baby’s health.

A proper exercise routine can reduce back and musculoskeletal pain, improve psychological wellbeing, enhance heart and lung function, and lower the risks of pregnancy complications such as gestational diabetes and high blood pressure. However, your usual tennis training routine will need to be modified to safely manage a healthy pregnancy's normal physical and physiological changes.



“SUCCESSFUL MOTHERS ARE NOT THE ONES THAT HAVE NEVER STRUGGLED. THEY ARE THE ONES THAT NEVER GIVE UP, DESPITE THE STRUGGLES.”

-SHARON JAYNES (MOTIVATIONAL SPEAKER)

Playing Pregnant

Scientific evidence shows it is safe for players to continue exercising, training, and competing so long as certain precautions are taken. There have been at least 25 Olympians (across all sports) who have competed while pregnant, including gold medalists in ice skating (1920); skeleton (2006), and equestrian (2004).

There is NO evidence of pre-term labor (early birth) in mothers who exercised during pregnancy as was previously believed. However, professional tennis players should be aware of the limitations and potential risks of intense training, especially during the first trimester (first 3 months of pregnancy). You should always consult a medical doctor, preferably your specialist Obstetrician and Gynecologist (OBGYN), about your training routine if you are pregnant or think you are pregnant.

Pregnancy-Related Effects Of Intense Tennis Training

Decrease in Performance

May occur during your pregnancy due to physiological changes in the body such as swelling (due to increased blood pressure), anemia, shortness of breath, nausea, heartburn, weight gain, an altered center of gravity, and musculoskeletal aches and pains related to the ligamentous softening necessary for the birthing process. These factors may cause you to experience reduced speed and endurance on the court and/or cause you to have less agility and coordination to stop or make rapid direction changes.

Overtraining Problems

Training loads, scheduling, and recovery and rest ratios should always be monitored by athletes to maintain peak performance conditions. During pregnancy, some women will experience poor sleeping patterns, excess fatigue, nausea or heartburn, varicose veins, increased injury risk, musculoskeletal soreness, changes in blood pressure, and a faster resting heart rate.



Risk of Overheating/Hyperthermia

Increased body temperature (hyperthermia) is one result of intense training and can be dangerous for your baby’s health if the core temperature is raised above 39 degrees Celsius (103 F), especially during the first trimester. If you are pregnant you should avoid prolonged, intense practice or competition outside in hot, humid environments (greater than 90F or 32C). You should avoid steam rooms, saunas, sun beds, and hot tubs. You should also practice good cooling strategies and stay well hydrated when exercising. For more information read topics “Play it Cool” and “Recovery”.

Dietary Considerations for Healthy Weight Gain

A healthy pregnancy weight gain is important to ensure a healthy baby. Weight gain between 10–15 kg (22-33 pounds) is normal. This gained weight is from the baby, the placenta, amniotic fluid, and increased blood volume. Too much and too little weight gain can cause poor health outcomes for both you and your baby. The dietary requirements of pregnant tennis players and players who are breastfeeding differ from those who are not pregnant or breastfeeding. You should see a Sports Dietitian during your pregnancy and post-pregnancy (while breastfeeding) to receive a custom training meal plan to ensure you are meeting the needs of you and your baby.

Get In The Zone

The International Olympic Committee consensus encourages using heart rate as a guide. However, the general consensus is that during pregnancy heart rate is a poor predictor of exertion because the resting heart rate is raised and the heart rate response blunted. Other research suggests that using ‘rate of perceived exertion (RPE), the feeling of how hard you train is more realistic, due to the physiological changes of pregnancy. Training zone heart rate is calculated using an age-related predicted maximum heart rate (HRmax) and resting heart rate (RHR). RHR is measured when you wake up and before you rise.

The following are recommended training zone heart rates for pregnant professional tennis players:

- Age <20 years --- 140 to 155 beats/minute (bpm)
- Age 20 to 29 years --- 135 to 150 beats/minute (bpm)
- Age 30 to 39 years --- 130 to 145 beats/minute (bpm)
- Age > 40 years --- 125 to 140 beats/minute (bpm)



Caution! Baby On Board



To maintain a healthy and safe level of training while you're pregnant, you should always follow the guidance of your OB-GYN. There are many myths and untrue beliefs about what is healthy and safe for women to do during pregnancy. Most of the information available is based on safety guidelines for non-elite athletes. Tennis is a relatively low-risk sport for pregnancies. It is a non-contact sport with a low risk of trauma. Most healthy, pregnant tennis players will be able to safely compete, with some modifications, at least through part of their pregnancy.

Some Facts To Consider

Increased Risk of Injury

Due to hormonal changes, including an increase in relaxin, there is an increased risk of injury during pregnancy. These hormonal changes can lead to laxity of ligaments and joints, which can elevate the risk of injury, especially to the low back, sacroiliac (SI) joint, pubic symphysis joint, and shoulder. Balance is altered during pregnancy as the center of gravity changes with the growth of the fetus. One-third of all pregnancy injuries are due to physical activities. The twists and turns, sudden stops, changes of direction, and sideways lunges, all of which are necessary when playing tennis, can cause injury to pelvic joints. Be mindful of swollen joints and ankles and wear proper shoes.

Miscarriage

Miscarriage is the spontaneous loss of a pregnancy before the 20th week. Many miscarriages occur because the fetus isn't developing normally. It is estimated that between 10-20% of all pregnancies end in miscarriage. There is some evidence that high-intensity training in the first trimester may increase miscarriage risk in non-athletic populations. There are no conclusive studies concerning professional athletes. However, a previous history of miscarriages is associated with an increased risk of subsequent miscarriages.

Potential Risk of Preterm Labor (Early Birth)

The risk of preterm labor exists for any woman who has a history of preterm labor. There is no solid evidence that professional athletes have a higher risk of preterm labor. Recent Danish studies suggest that physical activity may be associated with a reduced risk of preterm birth. However, the amount by which preterm birth risk was reduced was not significantly lower in women competing in sports versus women performing regular levels of physical activity.

Dehydration Risk

Proper hydration is essential for peak tennis performance. Pregnant players should monitor their hydration status for competition and training with fluid balance and USG (urine specific gravity) testing.

Comprised Blood Flow to Placenta

A healthy placenta provides oxygen and nutrients to the baby as it forms in a mother's womb. Pregnant tennis players who engage in repeated sessions of heavy weight lifting or repetitive intense isometric exercises, which require the Valsalva maneuver and cause a rapid increase in blood pressure and intra-abdominal pressure, may temporarily reduce placental blood flow. Reduced placental blood flow is associated with birth defects, learning disabilities, premature labor, and in extreme cases death. The implications of temporary, reduced fetal blood flow are not known. Follow the advice of your OB-GYN. If in doubt, avoid heavy weight training entirely.

Pelvic Floor Injury

The pelvic floor reduces the risk of pelvic organ prolapse, as well as reduces the risk of urinary or anal incontinence, and enhances sexual health. Pelvic floor injury may result from repeated sessions of heavyweight training which causes large increases intra-abdominal pressure. Research indicates that Olympic and elite athletes have an increased incidence of urogenital hiatus, which can increase the risk of prolapse (where the pelvic organs descend into the vagina) when they are training pre-and post-delivery. There is no evidence that elite athletes have any greater risk of pelvic floor injury or trauma from childbirth. Read "Pelvic Floor and More" to learn more.

STOP exercising immediately and call your OB-GYN if you experience any of the following symptoms while exercising when pregnant: vaginal bleeding or fluid leakage, feeling dizzy or faint, chest pain, persistent headache, muscle weakness, calf pain, or swelling, regular or painful contractions, and decreased fetal movements. You should have regular check-ins with your OB-GYN to monitor the baby's health.

Back In The Game

After giving birth it is recommended that you:

- Receive medical clearance after delivery to ensure a safe return to play
- Perform appropriate postpartum exercises to improve pelvic floor and core trunk strength and minimize the risk of injury:
 - Aerobic and anaerobic exercises, strengthening exercises of all muscle groups
 - Postural exercises and core stability
 - Emphasis on pelvic floor exercises (Kegels) of 1-3 sets of 8-12 contractions
- Have a graduated return to play designed with a qualified health care provider that provides safe parameters based on: the nature of your delivery (vaginal versus Cesarean), pelvic floor healing (e.g. repair of tears, surgical cuts to the perineum), pelvic floor injury and function, core trunk strength, mood, motivation, fatigue, sleep patterns, breastfeeding status and comfort, and musculoskeletal strength, agility, and endurance
- Consult a sports dietitian for specific dietary requirements for breastfeeding mothers
- Be fitted and wear a proper bra to protect breast health and manage the dual loads of tennis competition and breastfeeding
- Return to the court at a pace that is in accordance with the readiness of both you and your baby. Remember that everyone is different.

Feeling overwhelmed, anxious, panicky, or depressed? You are not alone. It takes time to adjust to new circumstances, and a new baby will challenge you in every possible way. Seek help from your OB-GYN or a licensed Sports Psychologist. Remember to breathe. IN and OUT. Keep it simple. IN and OUT.