

# TRAINING THROUGH THE MENOPAUSE

Head Coach at Tri Training Harder Philip Hatzis takes a deep dive into training through the menopause

Though the general understanding of the needs of female athletes is still way behind where it should be, there is accelerating progress in learning about the changes needed for female physiology....



In other words, we are now moving a lot of female physiology from unknown knowns into the known unknowns territory! Much of this will take time, especially as almost every sports science and exercise physiology needs to be re-tested with women in mind, which means there is no real “expert” way of training but more pioneers and updates to current thinking. However, the area that will take longer to become mainstream, again, is the ageing female athlete. This is partly because of the diminishing levels of active female athletes beyond the age of 41 and also because women are often unaware that the symptoms they are experiencing are menopausal ones.

Menopause, by definition, is a point in time. However, it is often misused as a collective term. The menopause is the point after which 12 months have passed since a woman’s last menstruation. After that point in time, a woman is post-menopausal, and before that, the phase in her life is called perimenopause. This is when hormone levels begin to change and decline, and ‘menopausal’ symptoms start. This is a crucial distinction because the perimenopause can extend up to 9 years before the menopause.



Given that the advice on menopause is usually for women between 44-55, introducing a 9-year perimenopause phase means women can be aware from their mid to late 30s. When looking at the data, menopause seems to be both a barrier to entry into sport and can cause a dropout of sport, too. This is an area that everyone would want to change for the better.

To reduce the impacts of this phase of life, the athlete needs to orient themselves to their own normal. The key message for all female athletes is to understand their physiology. For women in their fertile years (i.e., between puberty and perimenopause), this is to understand their hormone cycle's impact on training and to see if there are any patterns they can learn from and adapt. This can act as an early warning system for any change for ageing athletes. Without any formal testing, this allows women to identify as early as possible when they may be moving towards perimenopause. Several apps can help with tracking periods and hormone levels.



As all athletes (male and female) get older, they notice a reduction in their VO2 max, increased body fat storage, and decreased muscle mass. Therefore, training should be reconstructed to mitigate these changes as much as possible. There may be a need to increase the recovery times and the amount of intensity and strength work athletes do to promote less muscle loss and stress the VO2Max.

Additionally, women see the compound effect of a change in oestrogen levels. Firstly, there are fluctuations in the levels and then gradually, as they near menopause, lower levels. Lower oestrogen levels can impact many areas of the body, particularly its ability to create and maintain muscles and bone health. Furthermore, there are higher base cortisol levels in the body due to the stress of the changes. These two aspects can make it easier to over-train and can have a negative impact on the body composition changes we often see (fat gain and muscle loss). It is even more important for female athletes to ensure they hit the right balance of high-intensity training, strength work, and recovery.





Specifically for perimenopausal women, there are two critical fuelling considerations. Both are important for all athletes, but the margin for error for this cohort is much reduced. This is partly because of the increased cortisol levels and the reduced oestrogen levels that can help promote lean muscle mass. Firstly, protein becomes even more essential. The general guidance would be about 35-40g after exercise, and also ensure that there are regular doses of protein throughout the day (your body can only process so much protein at one time), hitting the upper targets of the sport's protein requirement recommendations.

Carbohydrate availability also becomes critical as the body becomes less able to process fat as a fuel source. This has two impacts. Firstly, when there is insufficient fuel, the body uses muscle protein as fuel (we already know that the perimenopausal athlete's muscles are hard to create and quick to lose, so this is less than ideal). Secondly, athletes must ensure they consume carbohydrates before or during sessions to ensure they can train to the higher intensities required to reduce the impacts of the declining oestrogen.



Importantly, there is much evidence that endurance athletes tend to be unrefuelled. Indeed, the updated 2023 International Olympic Committee statement on Relative Energy Deficiency in Sport had endurance sports as their target when discussing the prevalence of under-fueled athletes. With many of the symptoms of perimenopause being the same as those for REDs, ruling out REDs by matching energy requirements for the athlete is the first step all athletes must take to manage any of the ageing symptoms. Unfortunately, the changes around body composition often mean that athletes tend to reduce calorie intake, which exacerbates the REDs problem, increases cortisol levels and only worsens body composition changes.

Finally, there is a meaningful conversation around the mental well-being and psychology of ageing, particularly sporty women, where the well-known symptoms of menopause and the physiological ones discussed can impact them in several dimensions. There are genuine changes to their bodies, and what has worked well for them in the past around training and fuelling suddenly changes, and with that, so can their sense of identity and belonging to their sport. Nurturing a supportive environment is crucial in this time of change. In particular, athletes should consider their self-talk. In our experience of working with several women of all ages, this voice can often be the harshest critic!



Women will feel unbeatable on some days and struggle on others. There is no discernible pattern, and the athlete, the coach, and the training plan must allow these adaptations and fluctuations. A good example of this may be changing training to the mornings to help promote better sleep hygiene for those with difficulty sleeping symptoms. This may mean significant changes to their typical training week.

This adaptable approach summarises the situation really well. Navigating through the later stages of menstruation and beyond menopause is only just starting to become less of a taboo subject in daily life, let alone in the sporting arenas. As a result, there is minimal research to work off, and that which does exist should be considered as a starter looking into the topic.



Understanding your own physiology and tracking how it changes will help you make informed decisions on any changes you want to make, which will bring much more control to an otherwise very reactive situation. For all ageing athletes, there is a growing trend toward the importance of high-intensity workouts and strength work (not the “get older, get slower and longer” traditional approach. On top of that, women need to refine their nutrition and fuel for their sport and their changes, and this seems critical to managing many of the internal changes and, importantly, remaining in the sport.

