

Nail a PR at Every Phase of Your Menstrual Cycle

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Your physiology changes as your hormones fluctuate, but there's never a "bad day" to nail a personal best.

My life's work is largely devoted to helping women work with their unique physiology to train and perform their best. That means adjusting training sessions to leverage how our bodies respond to stress according to the hormonal fluctuations of our menstrual cycle. But it's important to bear in mind that this doesn't mean there's a "bad time of month" for performance. You can crank out a PR at any phase of your cycle.

This is an important distinction, because sometimes people think that because I recommend tailoring training according to a female's hormonal fluctuations that I'm also implying that performance itself will vary during the cycle. That's not necessarily the case. Women can perform their best at every point in the menstrual cycle, because performance is different from training.

Performance is one point in time when you lay it all on the line. You may need to tweak your hydration and fueling depending on your hormonal status. Your best effort may feel harder (or easier!) depending on your hormonal status. But you can absolutely perform your best regardless of where you are in your menstrual cycle. That's why studies that show physiological changes at different phases of the menstrual cycle, don't necessarily show significant changes in actual performance. Even if it feels harder, the women get it done (though, of course, there are exceptions to this, such as women who suffer from heavy menstrual bleeding, which is not captured in group norms research).

It's also important to remember that ultimately performance—that one point in time when you want to be your best—is the product of accumulated training stress and subsequent recovery. So, the real magic happens when you periodize your training with your cycle to take advantage of when your body is primed to adapt to stress so you can take your strength and endurance to the next level and improve performance. Here's how to get it done.

What are the phases of the menstrual cycle?

For clarity, the menstrual cycle occurs in three phases, which can be further broken down into five phases:

- The follicular phase, which can be divided into early-follicular (or menstrual phase; days 1-6) and mid-follicular (days 7 to 14)
- The ovulatory phase, which is a small window where ovulation occurs (days 13 to 15)
- The luteal phase, which can be divided into early luteal (days 15 to 21) and the mid-luteal (days 22 to 28).

The follicular phase is often the longest part of your menstrual cycle. It's also the most variable phase. It begins on the first day of your period and ends when you ovulate. The length of your follicular phase depends in part on the amount of time it takes one dominant follicle to emerge. When the follicle is slow to mature, this phase will last longer. The average length of the follicular phase is 14 to 16 days, but it can last anywhere from 11 to 27 days. The whole menstrual cycle will also be longer as a result which is why many women experience > 28 day cycles. Ovulation is the shortest phase, lasting just 24 hours. The luteal phase occurs just after ovulation and lasts until the next period starts. The average length is about 14 days and is very consistent for

every cycle. Women in perimenopause will often have erratic periods and considerably longer follicular phases.

Training and Performance in Each Phase

The following is a guide for training during each phase of your cycle; knowing that your body has high stress resilience up to, and including, ovulation; then it becomes less resilient to stress (especially with regards to your immune system!). I recommend tracking your cycle and how you feel in each phase in your training logs to see what works best for your unique physiology.

Week One: Early-Follicular Phase

This is your low hormone phase when your body is generally primed to take on stress and adapt well to heavy training. This is a great time to do high intensity workouts, heavy resistance training, and recover well. Fuel-wise, your body is primed to access carbohydrates. Take advantage of that by increasing your carbohydrate intake to promote recovery and maximize glycogen stores.

Performance tips: Take advantage of your hormonal profile and be sure you're well fueled and go for it. Even with heavier bleeding and cramping, a few sets of 20s sprints will help promote a boost in growth hormone and anti-inflammatory responses, to help get through these few days; but if you feel like you need to rest, go for it; listening to your body is key.

Week Two: Mid-Follicular Phase (including Ovulation)

The training advice is similar to the early follicular phase. Around ovulation, you'll have a surge of estrogen, which is anabolic. So, this is another good time for high intensity, heavy resistance training.

Performance tips: Some women may feel flat around ovulation and then bulletproof a day later; others feel the opposite. Take advantage of this bulletproof feeling and nail your lifts. Sleep has a performance boost here too. Your core temperature is at its lowest point when estrogen surges, which can help you get into a deep, restorative sleep.

Week Three: Early-Luteal Phase

The first couple of days in this phase are similar to the early follicular phase, but then estrogen and progesterone start to rise as your body prepares the uterus for possible pregnancy. The one-two punch of high estrogen and ovulation as you enter the mid-luteal phase reduces stress resilience, alters our immune system to be more pro-inflammatory; and increases our sympathetic drive. This is a good time for more steady state aerobic workouts and moderate training. After ovulation, your body shifts and relies more on blood glucose and fatty acids as estrogen and progesterone reduce its ability to access liver and muscle glycogen. Increase your daily carb intake at each meal so you have sufficient energy on board for training. Your body is also in more of a breakdown state, so be sure to get 30 grams of protein per meal and post-exercise.

Performance tips: Progesterone's main job is to shuttle glucose and amino acids away from the liver and skeletal muscle to build a lush endometrial lining. This increases your energy needs slightly, so you may feel you need to eat more. Make sure you fuel well in and around your training to keep out of a low energy state, and to signal muscle synthesis, not breakdown!

Week Four: Mid-Luteal Phase

This is when women can experience the fluid shifts, bloating, and cramping many women know as part of PMS. You can use these last few days leading into your next period as time to focus on recovery and absorb the hard training you've done in the previous two to three weeks. This is a great time to drill down technique and to work on mobility and functional strength.

Performance tips: If you experience significant PMS symptoms, you can try countering the inflammatory responses that create these: taking 250mg magnesium, 45mg zinc, 1 gram of omega-3 fatty acids, and 80mg aspirin or white willow bark.

Why does this PMS cocktail work? The biggest issue here is inflammation. Often women hear they should just take an over-the-counter NSAID, which can help reduce pain and heavy bleeding, but does not address prostaglandin's effects on other organs, like the kidneys. When your sex hormones drop, it triggers the release of inflammatory compounds like prostaglandins and the enzyme cyclooxygenase (specifically COX-1 and COX-2), which interact with

your kidneys to play a key role in [fluid balance](#) in the body, and are the main reasons for the fluid shifts and bloating of PMS. Newer NSAIDs do not work as well as aspirin to inhibit both COX-1 and COX-2. So I recommend low dose aspirin along with Omega-3 fatty acids, which not only inhibit COX-2, but also stimulate COX-2 to [trigger anti-inflammatory mechanisms](#). Your body uses more magnesium and zinc during the luteal phase as part of the uterine lining buildup. Increasing magnesium can [decrease vascular endothelial growth factor \(VEGF\)](#), which can reduce the severity of bleeding. And [zinc](#) can help reduce the severity of pain, cramping, and bleeding.