

A woman with long dark hair, wearing a beige bikini, is shown from the back, posing with her arms raised. She has tattoos on her upper arms and back. The background is solid black. The text 'HOW TO TRAIN WITH YOUR MENSTRUAL CYCLE' is overlaid on the image. 'HOW TO TRAIN' and 'WITH YOUR' are in white, while 'MENSTRUAL CYCLE' is in pink.

# HOW TO TRAIN WITH YOUR MENSTRUAL CYCLE

*Making your hormones work for you*

BODY BY ZELDA

# BODY BY ELDA Program for Women

## **How to Train with Your Menstrual Cycle**

In this bonus section, we discuss how you can manage your hormones during your menstrual cycle to maximise your fitness related goals. Read on to learn more!

If you get your period, you might have noticed that you feel less motivated, that your workouts are less intense, or that recovery is worse at certain times of the month.

This is because your menstrual cycle directly impacts a range of training-related factors, including metabolic rate and strength.

If we take the time to understand the hormonal shifts that occur throughout our menstrual cycle, we can use them to our advantage.

Understanding your menstrual cycle can become one more tool in your toolbox for maximising progress.

## **Understanding the Hormonal Cycle**

To understand the hormonal shifts that occur throughout your menstrual cycle, let's briefly review the phases of the menstrual cycle:

### **Follicular Phase**

The follicular phase lasts from the day you get your period until the day you ovulate. During this time, the follicles in the ovaries mature.

The first 5 or so days of this phase make up the menstrual phase, or the days during which you actually discharge blood and tissue from the lining of your uterus. On day 1, estrogen is at its lowest. Then estrogen increases to stimulate follicular growth. (Note: You may have seen the hormone "estradiol" related to the menstrual cycle; estradiol is the predominant estrogen hormone during reproductive years.)

The pituitary gland secretes follicle-stimulating hormone (FSH) and luteinising hormone (LH). FSH initiates follicular growth, and LH triggers ovulation and the secretion of progesterone. The follicular phase lasts approximately 14 days.

## Ovulation

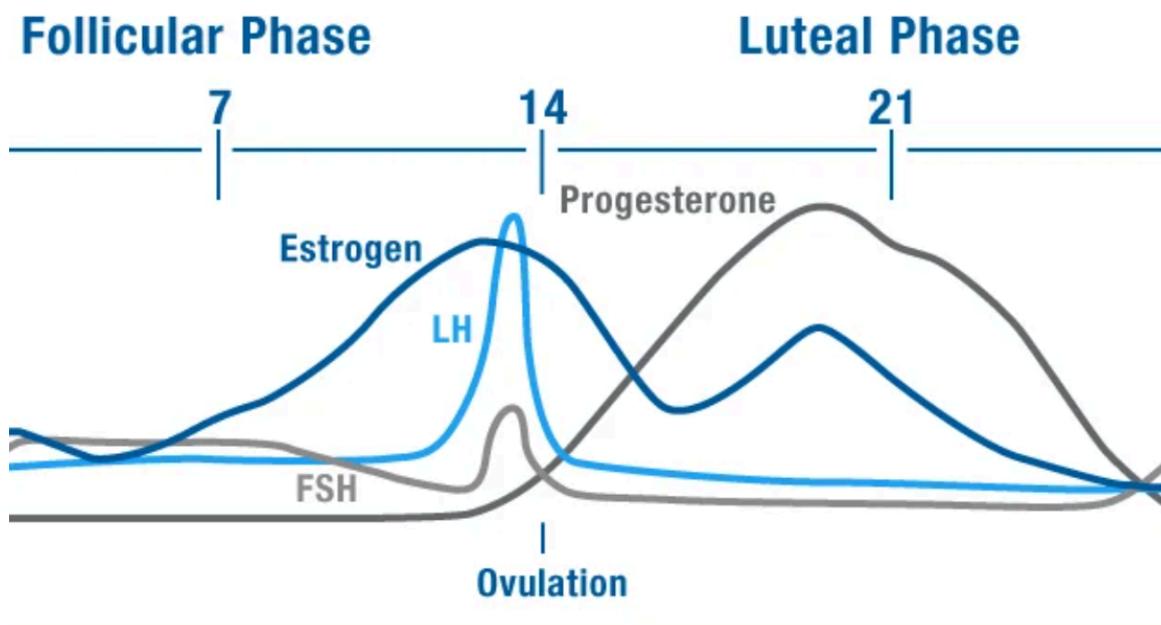
A mature egg is released by the ovaries and becomes available to be fertilised by sperm.

Estrogen and LH are at their highest on the day of ovulation. Progesterone starts to increase, and body temperature increases.

## Luteal Phase

The luteal phase lasts from the day after you ovulate until the day you start your period. The lining of the uterus will start to thicken to prepare for a possible pregnancy.

Progesterone, estrogen, and body temperature increase and then start to decrease if the egg is not fertilised. The luteal phase lasts approximately 14 days, and then the cycle restarts if the egg is not fertilised.



## **Training with Your Cycle**

As you can see from the above diagram, your body undergoes significant hormonal fluctuations throughout the menstrual cycle. These fluctuations impact not just our reproductive health but our overall health and well-being.

Let's see how we can use these changes to our advantage when it comes to training.

### **Proceed as Usual During Menstruation**

It might seem counterintuitive but menstruation is not necessarily the time when your body needs to rest.

Body temperature, metabolic rate, and insulin sensitivity should be at your normal, "baseline" levels during menstruation, so you can continue training as normal so long as you feel comfortable doing so.

### **Train Hard During the Follicular Phase**

Due to higher testosterone levels and the potential for increased muscle gains<sup>1</sup> and strength<sup>2</sup> during the follicular phase, this may be a good time to hit the weights hard and plan your heaviest, most intense strength workouts. You may even find that you have a higher tolerance for pain.

On the other hand, metabolic rate may be lower during this phase<sup>3</sup>, resulting in your energy expenditure at rest being a little bit lower than usual. This shouldn't be an issue if you take advantage of the potential for increased strength and endurance and get in some high-intensity workouts during this phase.

While the follicular phase and the day of ovulation may be good times to perform maximum strength tests, risk of injury may be higher as you approach ovulation due to hormonal fluctuations like increased estrogen<sup>4</sup>, so be sure to warm up adequately before starting these intense workouts.



## **Get Adequate Rest During the Luteal Phase**

During the luteal phase, time to fatigue may be shorter, especially in hot conditions, perhaps due to an already increased body temperature, and overall athletic performance may be decreased<sup>5</sup>. The luteal phase may therefore be a good time to take deload weeks and rest days or to perform shorter or less intense workouts.

Don't feel down on yourself if you feel tired more quickly on certain days of the month. You can use this knowledge of your cycle to your advantage and rest when your body is telling you to.

Additionally, metabolic rate may be higher during the luteal phase<sup>6</sup>, so you may be burning more calories during rest than during the follicular phase. At the same time, insulin sensitivity might be lower<sup>7</sup>, so this may be a good time to reach for fat or protein rather than carbohydrates.

Plus, your body may actually use more fat for fuel during this phase due to the presence of increased progesterone and decreased estrogen.

## How to Know Which Phase You Are In

If you're not sure where you are in your cycle, you can track when your period starts and ends to gauge how many days are in your typical cycle. While 28 days is often used to describe the total duration of all four phases of the menstrual cycle, most of us do not have perfect 28-day cycles.

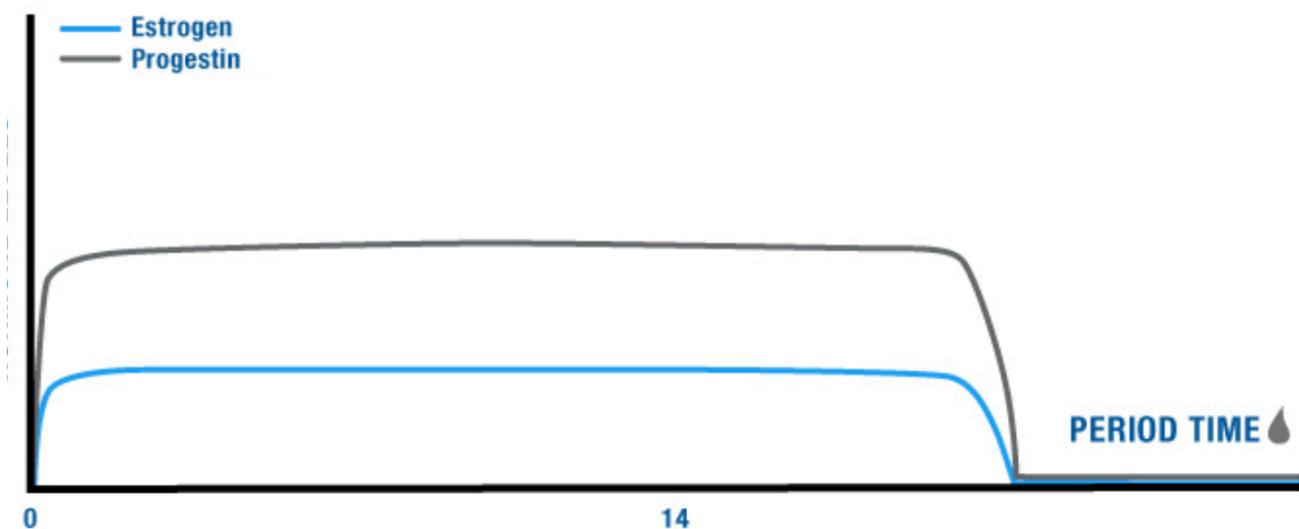
Another tool to track your cycle is to measure your basal body temperature, which is your temperature as soon as you wake up. Your basal body temperature will be lower during the follicular phase, then peak after ovulation and stay increased through the luteal phase into menstruation.

There are also many period-tracking apps to help you better understand the timing of your cycle.

## What about Birth Control?

If you are using hormonal birth control methods that contain estrogen and progestin, like combination oral contraceptives or the patch, then you will not experience all of the hormonal fluctuations described above. For instance, you will not have the dips in estrogen that trigger menstruation or ovulation.

The following diagram illustrates how you can expect steady levels of estrogen and progestin throughout your cycle rather than peaks and dips



Hormone levels for people using one type of combination pill\*

as seen above. When and if you stop taking the pill each month, these hormones will decrease.

This may or may not be a good time to plan intense workouts depending on how you feel. You might feel ready to hit the weights without the extra hormones, or you might experience a lack of motivation and energy because it isn't the norm to which you've become accustomed.

Steady hormone levels might affect your fat loss or muscle gain journey, as you will not experience the same fluctuations as someone who is not taking hormonal birth control. Hormonal birth control may increase insulin resistance<sup>7</sup>, but should not negatively impact training sessions<sup>8</sup>.

## Takeaway Message

Don't be hard on yourself if your workouts aren't as good at certain times of the month. It's normal. Hormones are chemical messengers in our body. Just like melatonin signals us when it's time to sleep, different hormone levels may signal when it's time for our body to hit the gym or take it easy.

Keep in mind that everyone is different; just because hormonal fluctuations make you feel like you should want to train hard during the follicular phase or take it easy during the luteal phase, this doesn't mean you need to do that. A good training approach for you is one that makes you feel good!

Lastly, be sure to consult with your doctor or health practitioner if you have any concerns regarding your menstrual cycle and training.

## References

1. Sung E, Han A, Hinrichs T, Vorgerd M, Manchado C, Platen P. Effects of follicular versus luteal phase-based strength training in young women. Springerplus. 2014;3. doi:[10.1186/2193-1801-3-668](https://doi.org/10.1186/2193-1801-3-668)
2. Wikström-Frisén L, Boraxbekk CJ, Henriksson-Larsén K. Effects on power, strength and lean body mass of menstrual/oral contraceptive cycle based resistance training. J Sports Med Phys Fitness. 2017;57(1-2):43-52. doi:[10.23736/S0022-4707.16.05848-5](https://doi.org/10.23736/S0022-4707.16.05848-5)
3. Solomon SJ, Kurzer MS, Calloway DH. Menstrual cycle and basal metabolic rate in women. Am J Clin Nutr. 1982;36(4):611-616. doi:[10.1093/ajcn/36.4.611](https://doi.org/10.1093/ajcn/36.4.611)

4. Herzberg SD, Motu'apuaka ML, Lambert W, Fu R, Brady J, Guise J-M. The Effect of Menstrual Cycle and Contraceptives on ACL Injuries and Laxity: A Systematic Review and Meta-analysis. *Orthop J Sports Med.* 2017;5(7):2325967117718781. doi:[10.1177/2325967117718781](https://doi.org/10.1177/2325967117718781)
5. Janse DE Jonge XAK, Thompson MW, Chuter VH, Silk LN, Thom JM. Exercise performance over the menstrual cycle in temperate and hot, humid conditions. *Med Sci Sports Exerc.* 2012;44(11):2190-2198. doi:[10.1249/MSS.0b013e3182656f13](https://doi.org/10.1249/MSS.0b013e3182656f13)
6. Piers LS, Diggavi SN, Rijkskamp J, et al. Resting metabolic rate and thermic effect of a meal in the follicular and luteal phases of the menstrual cycle in well-nourished Indian women. *Am J Clin Nutr.* 1995;61(2):296-302. doi:[10.1093/ajcn/61.2.296](https://doi.org/10.1093/ajcn/61.2.296)
7. Yeung EH, Zhang C, Mumford SL, et al. Longitudinal study of insulin resistance and sex hormones over the menstrual cycle: the BioCycle Study. *J Clin Endocrinol Metab.* 2010;95(12):5435-5442. doi:[10.1210/jc.2010-0702](https://doi.org/10.1210/jc.2010-0702)
8. Ekenros L, Hirschberg AL, Heijne A, Fridén C. Oral contraceptives do not affect muscle strength and hop performance in active women. *Clin J Sport Med.* 2013;23(3):202-207. doi:[10.1097/JSM.0b013e3182625a51](https://doi.org/10.1097/JSM.0b013e3182625a51)