

# THE MENSTRUAL CYCLE

If you fall into the 'I'm in need of a menstrual cycle refresher' group then you are not alone. A recent study by Larsen et al. (2020) highlights that knowledge surrounding the menstrual cycle is poor in female athletes.

## TERMINOLOGY

**Menarche:** The first occurrence of menstruation. The average age is 12/13, but can happen anywhere between the ages 9 to 15.

**Menstrual cycle:** A cycle of changes in female-sex hormones making pregnancy possible.

**Period (menstruation):** Shedding of the endometrial lining of the uterus.

**Ovulation:** The release of an egg from a follicle.

## A 'NORMAL' CYCLE



**Cycle length:**  
between 21  
and 35 days.



**Period length:**  
2 to 8 days  
(avg. 5).



**Cycle variation:**  
avg. of + or - 8  
days.



**Blood/ fluid loss:**  
30 to 60 ml.

## WHAT'S HAPPENING?

**The follicular phase:** The time between the first day of the period and ovulation. Oestrogen levels begin to rise reaching its peak towards ovulation.

**The luteal phase:** The time after ovulation and before the start of your next period. Oestrogen levels have a secondary peak and progesterone also peaks in the middle of this phase.

**Period:** At this point levels of oestrogen and progesterone are low.

**Ovulation:** roughly occurs in the mid point of the cycle (oestrogen levels dip).

**Pre menstrual:** Both hormones begin to drop off to start a new cycle. Some women might experience symptoms.



\*Textbook 28-day cycle with hormonal fluctuations pictured. Please note we are not all textbooks and only 13% of women have a 28-day cycle, 'normal' is considered between 21 and 25 days.

\*Day 1 of cycle = first day of period (i.e., first day of menstrual bleeding).

## HORMONES

There are two important hormones – oestrogen and progesterone – which ebb and flow across your cycle, sending your body important messages.

**Oestrogen:** produced by the ovaries - helps the release of an egg and the development of the endometrial lining.

**Progesterone:** produced by the ovaries (corpus luteum) - prepares the uterus for possible implantation of a fertilised egg, and is the pro-pregnancy hormone.

Because we have these hormone receptors all over our bodies, these hormones also have other physiological effects and can influence a number of systems, which could subsequently translate into performance and training effects.