

## THE MENSTRUAL CYCLE

The menstrual cycle is one of the most remarkable things that happens within a woman's body. It is like a highly-tuned symphony, a fascinating interplay of hormones and physiological responses. Here we explain the general ebb and flow of a 28 day menstrual cycle, but it is important to understand that these timings may vary between women.

### Day 1-5. Letting go of the old and making way for the new

At the beginning of every cycle two processes are happening at the same time. Whilst we are menstruating to let go of the old lining of our uterus that is not required, a new process is occurring. Under the influence of Follicle Stimulating Hormone (FSH), about 15 to 20 eggs start to mature in each ovary. Each egg is encased in its own follicle. This follicle starts to produce oestrogen, the hormone necessary for ovulation to eventually occur.

### Day 7. A winner emerges

A race progresses amongst all of these follicles and around the seventh day one outstrips the others in growth and starts to produce copious amounts of oestrogen.

Oestrogen has many roles but its two key functions are to help build up the lining in the uterus (ready for a fertilised egg to comfortably implant), as well as informing the glands in the cervix that they should start producing a special mucus to aid the conception process.

### Day 12-13. The most fertile days of the cycle

The purpose of fertile mucus is to aid the survival of sperm and their movement from the vagina through the cervix. At this stage a cascade of mucus pours from the cervical glands to the vagina.

Studies indicate that the day for sexual intercourse which results in the highest conception rate is, in fact 2 days before ovulation

Eventually Oestrogen levels have increased to such a point that they trigger an up surge of Luteinizing Hormone (LH).

### Day 14. Ovulation

It is the LH that causes the egg to literally burst through the ovarian wall and be released.

After bursting out the egg tumbles into the pelvic cavity, where it is quickly swept up by the finger like projections of the fallopian tube called the fimbria. It is during this journey through the fallopian tubes that an egg may meet the sperm and conception occurs.

All the previous parts of the cycle (Day 1-14) can confusingly be called a number of different things. Sometimes these days are summarised under the term 'the follicular phase' as the body is concerned with the maturing of the follicle. You may also hear it being termed as the 'proliferative phase' as this is when the uterine lining proliferates i.e. builds up ready for implantation. Thirdly it can be called the 'Oestrogenic phase' as this is the time when the hormone Oestrogen is predominant.

### **Day 15-25. The 'Luteal' or 'Prostrogenic' phase**

The empty follicle that once held the egg collapses in on itself and becomes the yellow body of the 'corpus luteum' (hence the term 'luteal phase'). The corpus luteum has a vital role as it remains behind in the ovary and starts to supply another hormone called Progesterone.

As Oestrogen and LH levels fall away, Progesterone becomes the dominant player and it is incredibly important for a woman's cycle. Progesterone's key role is to help the uterine lining (endometrium) to thicken and sustain itself ready for egg implantation. Interestingly, it is the Progesterone that increases your basal body temperature slightly.

The Corpus Luteum produces Progesterone for twelve to sixteen days. This is enough time for a fertilised egg to travel through the fallopian tubes into the uterus and implant itself in the nutritious uterine wall ready for pregnancy to begin.

### **Day 25-28. The ending of the cycle**

If fertilisation does not occur the corpus luteum produces a diminishing amount of Progesterone and eventually levels will decrease to such a point that the uterine lining (endometrium) will not be sustained, start to disintegrate and fall away. Menstruation will occur and the bodies wondrous orchestra will prepare for another grand performance.

