

The Legend of the Luteal Phase Defect

The menstrual cycle is a monthly reminder of both the potential for fertility and the lack of pregnancy for women. This biologic process is referred to by a variety of terms in our popular culture including: "time of the month", "I'm on", "my period", "A.F. (Auntie Flow)" and even sarcastically "my friend". For those wishing to avoid pregnancy, especially those with lapses in birth control usage, the onset of one's period comes as a relief. However, women who want to become pregnant may dread the start of menses and the reminder that they have not achieved their goal. The pursuit of fertility is also hampered by the many misconceptions that exist regarding the normal length of the menstrual cycle and the optimal time to achieve pregnancy. The OV-Watch is based on the well established science of the fertility window. Fertility is enhanced and the time required to get pregnant is shortened, when a couple accurately identifies this window of opportunity several days BEFORE ovulation. During the fertility window, intercourse has the potential to result in pregnancy as the sperm remain viable for several days awaiting the release of the egg. Identifying ovulation at the last minute or after the fact is unlikely to result in a pregnancy as the egg may no longer be receptive to the sperm. Likewise, there are many other myths about getting pregnant and issues surrounding normal hormone fluctuations. Chief among these misconceptions is the "Legend of the Luteal Phase Defect".

The Luteal Phase is the second half of the cycle, from ovulation until the onset of menses and is extremely consistent in length, 13 - 15 days. The first half of the cycle (from the onset of bleeding until ovulation) varies considerably between women and accounts for the different cycle lengths. The length of the menstrual cycle, from the first day of menstrual flow to the start of the next menses, has traditionally been recognized as 28 days. However, less than 1 in 6 women have cycles that are exactly 28 days in length. Approximately 2 out of 3 women have periods that are 25 - 28 days, with most normal cycles ranging 24 to 35 days. It is important to note that cycle lengths vary with age; slightly longer in the teens with a decrease in length and variability until the mid 40s. The cycle begins to lengthen before stopping when a woman reaches menopause. A regular, predictable and consistent menstrual cycle is a very good indication that a woman is ovulating. Conversely, an irregular, unpredictable or even absent cycle suggest that a woman is not regularly releasing an egg and has decreased fertility. However, it is not uncommon for a woman to have some variability (up to 7 days) in the length of her cycle from month to month.

Much attention has been focused on the time after ovulation, the luteal phase, and its correlation with implantation or fertility. A Luteal Phase Deficiency or low progesterone is often blamed for difficulty conceiving and early pregnancy loss. The theory is that the site of the egg release or corpus luteum produced inadequate progesterone resulting in a uterine lining or endometrium that was not ready or capable of supporting the embryo. The standard for diagnosing this condition was a short (<13 days) or inadequate luteal phase. Traditionally, an endometrial biopsy was also performed as part of the evaluation for infertility, but the recent overwhelming evidence does not support the use of this uncomfortable, invasive test. One of the leading textbooks on fertility states that an endometrial biopsy: "cannot be used to guide clinical management...and should no longer be regarded as an important element of their evaluation". The samples of uterine tissue are not only difficult to interpret, but many women

who are very fertile will have abnormal results, raising the question of the value of the test for infertility. A low progesterone level is often used to diagnose a luteal phase defect and determine the need for progesterone supplementation. However, a single blood level for progesterone may not be helpful. Progesterone levels change rapidly as they pulse up and down varying from as low as 2 ng/mL to as high as 40 ng/mL after ovulation. Again, the textbook states that serum progesterone levels “defy interpretation and have little value beyond documenting ovulation”.