Ovulona™

This personal monitor of cervix uteri is needed to resolve the uncertainty of the extent of the fertile window of opportunity for conception.

This is the only way. Only the recorded menstrual cyclic profile can tie conceptions to specific cycle days.
On the extent of the fertile window:
Many pundits broadcast this quandary on fertility websites

“The fertilizable life of the human ova is not known exactly, but most estimates range between 12 and 24 hours after ovulation.

Equally unknown is the fertilizable lifespan of the human sperm. The most common estimate is 48 hours; however, human sperm have been found in the fallopian tube as long as 85 hours after intercourse. [Others claim even more, as long as 5 days.]

It is not known if these sperm have retained their fertilizing ability, since motility can be maintained after the sperm have lost their ability to fertilize.”

QUOTE UNQUOTE
Government scientists have not solved the quandary. They get cited as the gold standard by proponents of the old technologies of estimating ovulation. Gist of their data:

"We measured estrogen and progesterone metabolites in urine to estimate the day of ovulation."

The bars represent probabilities calculated from data on 129 menstrual cycles in which sexual intercourse was recorded to have occurred on only a single day during the six-day interval ending on the day of ovulation (day 0). The solid line shows daily probabilities based on all 625 cycles, as estimated by the statistical model.
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The reference is to the 1995 sensation-causing announcement of 6 fertile days (N Engl J Med 1995; 333:1517-1521), which included the estimated day of ovulation (day 0) and the 5 days before it. Problems with this are as follows.

- Let’s not ignore the unexplained logics of the strangely incongruent distribution of conception rates in the lowest 3 of their 6 days' conception probabilities. Is it logical that the probability of pregnancy is higher on day -4 (conception rate 0.17) than on day -3 (conception rate 0.08)? Or is this result a spurious experimental artifact? Are their data of days -5, -4 and -3 possibly all data point outliers?

  For critique see ref. 1. Gist: Tracking ovarian steroid hormones in body fluids for fertility awareness is inaccurate because it does not monitor the complex mechanism of folliculogenesis, i.e. the mechanism of the menstrual cycle, which underlies the daily fertility status.

- Incongruously, intercourse that was recorded on a given morning was assumed to have occurred the previous day. This could have led to the conclusion of fertility cut-off on the estimated ovulation day (day 0), based as it was on 34 pregnancies from 625 menstrual cycles.

- Ovulation was not detected, it was estimated using urine-measured hormonal markers ratio (E1G/PdG) that the authors stated “may be approximately equivalent in accuracy to methods based on the surge of serum luteinizing hormone” (LH).

  Neither the LH nor the E1G/PdG ratio are definitive markers of ovulation.

See ref. 2 (“The fallacy of ovulation calculators, calendars and circulating-hormone detectors”) for further discussion. Gist: The local and acute regulatory mechanisms remain undetected by the peripheral biomarker variables tracked in body fluids.
Obstetrics and gynecology authorities have taught for many years about the narrow fertile window

- "Human Reproduction: Conception and Contraception", edited by E.S.E. Hafez and T.N. Evans, Harper & Row Publishers, 1973 says: “...the fertile period of the menstrual cycle is not more than 4 days, and probably less”. For more see ref. 1.

- The 2011 book Clinical Gynecologic Endocrinology and Infertility by Marc A. Fritz and Leon Speroff states that: the fertilizable lifespan of the sperm is uncertain, and "the most common estimate is 48 to 72 hours, although the motility (ability to move) can be maintained after the sperm lost their ability to fertilize". Similar uncertainty is associated with the lifetime of the egg, 12-20 hours.

- Williams OBSTETRICS 23RD EDITION (2010, 2005, 2001) says: Without contraception, there are approximately 400 opportunities for pregnancy, which may occur with intercourse on any of 1200 days—the day of ovulation and its two preceding days.
Ovulona™ will determine the lifespan of the gametes

bioZhena's ovulographic™ technology will remove the uncertainties because the information-rich cyclic profile enables associating conceptions with definitively described cycle days, by reference to the long-term and short-term predictive peaks and the ovulation marker in the cyclic profile. (Ref.: Folliculogenesis In Vivo™.)

Here is how:

Groups of at least 10 women, guided by their Ovulona device readout, will be motivated to have intercourse only on single days of the tested period.

The days thus tested will be:

From the first day after the apex of the dominant follicle peak (the day shown by the first arrow) to the second day after the ovulation day marker (the day is shown by the second arrow).

The women will choose the time of day for the ovulographic reading (AM or PM).

The device records everything.