

Simple test gives accurate prediction of ovulation to help women become pregnant

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This meant that the calendar method predicted ovulation correctly in only one in four women, whereas the ClearBlue Digital Ovulation test (20 test pack) predicted correctly in 99% of women over the same period.

Dr. Jayne Ellis, Director of Scientific and Medical Affairs at SPD Swiss Precision Diagnostics GmbH, Geneva, Switzerland, makers of the test, explained that it consisted of a digital reader and [urine test](#) sticks, which could detect the surge in luteinising hormone (LH) that triggers [ovulation](#). "The test stick is held in the urine stream," she explained, "and if the LH levels are elevated, a smiley face appears on the screen. This indicates that the woman is in a highly fertile phase. If there is no hormone surge, a circle is shown on the screen and the woman can test again the following day."

The calendar method, which uses the previous cycle length and subtracts 14 or 15 days to give an estimate of the day of ovulation, is the most commonly used technique for predicting fertility. Available on many websites and now on mobile [phone applications](#), it is used by 35% of those attempting to conceive. However, up until now it had not been subjected to scientific scrutiny, said Dr. Ellis.

"We undertook a [comparative analysis](#) of the two methods – calendar and the Clearblue Digital Ovulation test – using a group of 101 [women](#) recruited via local press adverts and a website. The women collected a total of 895 daily urine samples. Ovulation was confirmed by using

laboratory analysis of the LH surge, combined with a progesterone rise in the urine. This is a clinically validated method of confirming ovulation," said Dr. Ellis.

The researchers compared the accuracy with which the two test methods predicted the peak fertile days with the standard laboratory method. "We found that the calendar method was inaccurate in predicting ovulation, and therefore the peak fertile days," said Dr. Ellis. "This is because it uses data from previous cycles which are naturally variable in many women."

Cycle length in the study ranged from 14 to 50 days. The researchers found that use of the calendar method in women trying to conceive resulted in only one third of cycles where peak fertile days were correctly predicted. On an individual basis only one in four women trying to conceive would have correctly identified their peak fertile days using the calendar method. In 48% of cycles, the peak fertile period was identified by this method after it had occurred.

By contrast, the Clearblue tests would have been conducted on the day of the LH surge in 77% of the cycles if a seven-stick pack had been used and start day was based on average cycle length. In 6% of cycles the surge had occurred before the first test day, and in 17% of cycles it had occurred after the last test was conducted. However, if a 20-stick pack was used, a test would have been conducted on the day of the LH surge in 99% of cycles.

Previous research has shown that 46% of cycles in women aged from 18 – 40 vary by seven days or more, and that this variation increases as women approach the menopause. At a time when more and more women are delaying pregnancy until their thirties, it is increasingly important that they have a better understanding of their own menstrual cycles and the days on which they are fertile. Failure to conceive after six months

of using an accurate product such as the Clearblue ovulation test is evidence that there may be an underlying fertility issue that should be investigated, especially in older women, the researchers say.

"Like the calendar method, our test is safe and non-invasive," said Dr. Ellis. "But the difference is that it predicts ovulation accurately and therefore gives couples who want to get pregnant the chance to time intercourse correctly and maximise the chances of conception."

Provided by European Society of Human Reproduction and Embryology

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