



## **Transcript: Menstrual Health and Fertility Indicators**

**Jacki Witt** Let's look at ovulation first. So most ovulatory cycles are 21 to 35 days long. That is from the FIGO definition for normal menstruation. And this provides at least presumptive evidence of ovulation. Periodic bleeding may occur in the absence of ovulation, but that's not very common. And usually when you're doing the history, that bleeding is erratic in timing and amount or characteristics. Other signs and symptoms that indicate probable ovulation include PMA symptoms and mild dysmenorrhea or cramping at the time of menstruation. Women can be taught to track cervical mucus changes, Meg mentioned that, through the cycle, and they can notice ovulatory mucus, which is slippery, stretchy, and watery. Some women also report transient pelvic pain at the time of ovulation, and this can be accompanied by a little bit of pink spotting. Other women report increased sex drive or libido around the time of ovulation. This has been linked to high estrogen level at that time, high circulating estrogen levels.

Ovulation kits which measure LH or luteinizing hormone, that's the hormone which actually causes ovulation are helpful for identifying the ovulatory or fertile window in the cycle. And they're usually pretty accessible. There are some as low as \$15 per kit now, so. A serum progesterone level, which we would draw at the clinic if we were to do that is we would look at anything over three nanograms per mil in the mid-luteal phase. That's around days 24 to 28 in a 28 to 30-day cycle. Pelvic sonogram is the gold standard for documenting ovulation, but that is usually done in specialized infertility settings, not in basic OB-GYN or Title X settings. Note that basal body temperature is no longer considered the best or preferred method for documenting ovulation.

Next, let's look at adequate sperm. So when there's an abnormal semen analysis, urology referral for further testing, including hormone levels and genetic testing is the most likely next step for someone in a Title X setting. Clients with abnormal findings on history or physical exam would also be referred to a urologist.

Spend a minute talking about timing and frequency of intercourse because it's amazing how many people are not aware of these things, so we can really make a difference with education and counseling just about when to have intercourse. So to optimize the couple's natural fertility, we want them to know about the peak days of fertility. We want to educate that the highest

fertilization success rate is achieved when sperm is deposited into the vagina in the six days before ovulation. For those with regular menses occurring about 21 to 35 days apart then, we want to advise intercourse every one to two days after the menstrual period ends. Ovulation kits may help determine optimal timing since they identify that LH surge that actually causes ovulation to occur. So most kits will turn a bright blue color about 36 hours before the patient is going to ovulate. So that gives people time to schedule, so to speak, sexual intercourse at the time or before the time of ovulation occurs. I think it's important to remind people too that there are no special positions or requirements for lying down after intercourse which have ever been proven to increase the rate of fertilization. So it's important that people know that. Additionally, we should, in general, tell people to avoid most lubricants. We know that a lot of water-based lubricants may decrease fertility, and we'll chat in some of the FDA-approved lubricants that can be used in patients wanting to achieve pregnancy.

I like this graphic because it shows you the fertile window in a graphic representation. The graph illustrates a 28-day cycle. It indicates that, on average, the fertile window spans the time period from day eight to day 19, and that's if you're not pinpointing it with, for instance, an LH ovulation kit. This research has demonstrated that this is really the most likely fertile window time. And we know that sperm deposited in the vagina in the days leading up to ovulation have the most chance for fertilizing the ovum when it's expelled. So this fertile window also takes into account the physiologic approximate viability of sperm cells, which is three to five days, and also the viability of the ovum, which is about 24 hours. Ova may live a little bit longer than 24 hours, but most authorities don't think that they are fertilizable after 24 hours of age.

This is my really simplified education handout that I use with patients. I like it because I can write all over it, and make little notes, and make circles, and I can add things to the end if they have longer cycles. So I don't think you need real involved patient education when you're talking about timing intercourse and teaching about the fertile window.