Understanding Ovulation and Conception: A Guide to Fertility

Menstruation

Menstruation, or having a period, happens about once a month and is when you bleed from your vagina. Each month, the lining of the uterus thickens in preparation for pregnancy. If you don’t conceive, the excess lining of the uterus comes away and flows out through your vagina. It is a normal part of the menstrual cycle.

The average length between periods is 28 days, but every person’s cycle is different and can change from month to month. Some may have a cycle of around 21 days, while others can be up to 38 days.

You can work out the length of your menstrual cycle by counting the days from the first day of your period until the first day of your next period.

Knowing your cycle length can be useful when trying to understand ovulation timing, because ovulation usually happens before the next period rather than on the same calendar day for everyone. If your cycle varies, tracking several months may give a clearer picture than relying on a single cycle.

Ovulation

The ovaries are two glands in the female body that produce eggs and release hormones that control the menstrual cycle.

Ovulation happens when an egg is released from one of the ovaries and travels down the fallopian tube, where it waits to be fertilized by sperm.

Ovulation is a key part of fertility because pregnancy can happen only when sperm are present around the time an egg is released. The exact timing of ovulation can vary from person to person and from cycle to cycle, even in people who usually have regular periods.

In a typical 28-day menstrual cycle, ovulation occurs around day 14. This is a general estimate, not a rule. For some people, ovulation may happen earlier or later, depending on cycle length and individual hormonal patterns.

Likely Conception Window

You are most likely to conceive during the five days before ovulation, along with the day you ovulate. Sperm can live up to five days inside the body, so if you have sex up to five days before your egg is released, you can get pregnant.

After ovulation, the egg can only survive for 12 to 24 hours. After this time, the chance of getting pregnant is virtually zero until the next menstrual cycle.

Your chances of getting pregnant are highest in the three days leading up to and including ovulation.

This is why timing sex before ovulation can matter. Waiting until after ovulation may miss the fertile window, while having sperm already present in the reproductive tract in the days before ovulation can increase the chance that fertilization occurs when the egg is released.

Research on timing of intercourse in relation to ovulation supports that conception is concentrated in a short fertile window ending on ovulation, with the highest chances occurring close to ovulation. For most people trying to conceive, this means focusing on the days leading up to ovulation rather than trying to identify the exact moment it occurs.

Predicting Ovulation

Ovulation usually happens about halfway through the menstrual cycle, around 14 days before the first day of the next period in a typical 28-day cycle. However, the exact time can vary.

Signs of ovulation can be subtle, but tracking certain changes can help predict the fertile window.

Changes in mucus: Around the time of ovulation, vaginal discharge may become clear, stretchy, and slippery, similar to egg whites. After ovulation, when the chances of becoming pregnant drop, discharge often becomes cloudy and thick or disappears entirely.

Changes in body temperature: After ovulation, body temperature may increase slightly by about half a degree Celsius. If using temperature tracking to determine fertility, a special thermometer should be used to measure temperature every morning before getting out of bed. Recording the readings daily on a graph or spreadsheet can help identify patterns over time. The most fertile days are typically two to three days before the rise in temperature.

Other signs: Other possible signs of ovulation include mild abdominal cramps, breast tenderness, or increased sex drive. However, these are not the most reliable methods for predicting fertility.

Because many ovulation signs are indirect, they are usually most helpful when observed over time. Cervical mucus can help identify when the fertile window is approaching, while basal body temperature often confirms that ovulation has already happened. Using more than one method may make patterns easier to understand.

Ovulation Calculators and Kits

Ovulation calculators and kits can also help predict ovulation.

Online ovulation calculators: These tools use the date of the last period and cycle length to estimate the most fertile days.

Home ovulation predictor kits: Available at pharmacies, these test for a rise in luteinizing hormone \(LH\) levels in urine. Testing should begin a few days before the expected ovulation day. A positive result indicates ovulation will likely occur within the next 24 to 36 hours.

Doctors can also arrange blood tests to check progesterone levels, which can help confirm ovulation.

Calculators are estimates and work best when cycles are fairly regular. Ovulation predictor kits can be more specific because they test for the LH rise that usually happens before ovulation. However, results can be harder to interpret for people with irregular cycles, polycystic ovarian syndrome, or certain hormonal patterns. If the results are confusing or do not match other cycle signs, a healthcare provider can help interpret what may be happening.

Additional Considerations for Conception

If trying to get pregnant, consider the following:

Taking a folate supplement
Maintaining a healthy diet
Ensuring vaccinations are up to date

Most healthy couples will conceive within a year of trying.

General health can influence fertility and pregnancy preparation. A healthcare provider may discuss preconception health, current medicines, vaccination status, folate, medical conditions, weight, smoking, alcohol, and exercise. These conversations are not about blame; they are a way to identify modifiable factors and make pregnancy as safe as possible.

For personalized advice or further guidance, it’s always recommended to speak with a healthcare provider. They can assist with understanding your individual needs and recommend the best tools and methods to help you conceive.

When to See a Doctor

If under 35 years old and trying to conceive for a year without success,

consider seeing a doctor to discuss options.

If over 35, it may be helpful to see a doctor after trying to conceive for six months, as fertility decreases with age.

A doctor should also be consulted if there is a history of:

Heavy periods, also called menorrhagia, or periods lasting longer than seven days
Endometriosis
Hormonal disorders, such as polycystic ovarian syndrome \(PCOS\)
Any other concerns that may affect fertility

There are several tests available to assess potential fertility issues.

Seeing a doctor does not always mean that treatment will be needed right away. It can be a first step toward checking whether ovulation is occurring, reviewing menstrual history, assessing hormone levels, and deciding whether further testing is useful. If there are known medical conditions, irregular periods, repeated pregnancy loss, or concerns about fertility, earlier medical advice may be appropriate.

Tools and Assistance

When trying to conceive, using various tools and assistance options can enhance your understanding and improve your chances of success. Here are some helpful tools:

Fertility trackers: These are apps or physical devices that help track menstrual cycles, ovulation signs, and body temperature. By tracking this data over time, they can predict your most fertile days and assist in planning intercourse to increase your chances of conception.
Ovulation kits: Home ovulation predictor kits are available for use at home and can help track changes in hormone levels, identifying the most fertile days. By detecting a rise in luteinizing hormone \(LH\), these kits provide insight into when ovulation will occur, giving you a better chance to conceive.
Basal body temperature thermometers: Specialized thermometers help you track your body temperature every morning before getting out of bed. A slight

increase in temperature can indicate that ovulation has occurred, helping you predict your fertile window with more precision.
Fertility charts: You can use paper or digital charts to record your temperature, cervical mucus changes, and other signs of ovulation. Over time, patterns will emerge, making it easier to pinpoint your most fertile days.
Consultation with fertility specialists: If you're not conceiving after several months of trying, it may be helpful to consult with a fertility specialist. They can provide tests and treatments, such as hormone level evaluations, ultrasound assessments, and even fertility procedures.
Support groups and counseling: For those who are experiencing challenges in their fertility journey, support groups or counseling can provide emotional support. Connecting with others going through similar experiences can help reduce stress and provide comfort during the process.

For personalized advice or further guidance, it's always recommended to speak with a healthcare provider. They can assist with understanding your individual needs and recommend the best tools and methods to help you conceive.