

Preconception Planning for Future Parents



Having a healthy baby is a joy. Happily, there are ways to prepare for pregnancy that can help assure your baby's health.

Even before you conceive, there are things you can learn from your health care provider and things you can do yourself that will help you have a healthy baby. It's called "preconception planning," and it's part of a healthy approach to pregnancy.



Basal Body Temperature Basics

What is basal body temperature? Basal body temperature (BBT) is the temperature of your body at rest.

Why would you measure your BBT? BBT charting is a useful tool for couples trying to conceive because of its ability to confirm ovulation. BBT charting also helps the couple understand more fully the physiological processes surrounding ovulation. Not all women ovulate 14 days before their next period. In fact, for many women, the time between ovulation and their period (called the luteal phase) is shorter. A woman needs to have at least 10 days in this phase in order to allow enough time for the fertilized egg to reach the uterus and implant. If it is less, she will need to resolve the short luteal phase if she desires to maintain a pregnancy.

Is BBT charting enough? No. Charting temperatures will only tell you when ovulation has already occurred. Since an egg can only live about 12 to 24 hours, by the time your temperatures rise a day or two after ovulation, the egg will already be gone. So when charting your fertility signs in order to time intercourse, it is most useful to chart your cervical fluid to determine when you are in your most fertile phase.

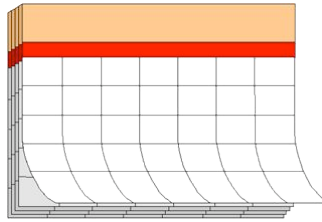
How do you take your BBT? Your BBT is taken orally with a special BBT thermometer. This type of thermometer is graduated in easy-to-read one-tenth degree increments. Your temperature must be taken before *any* activity, first thing in the morning, after at least three hours of consecutive sleep. The thermometer must be shaken down the night before, because even this activity can raise your temperature -- and you are looking for as little as two-tenths of a degree of difference. Be sure to read the instructions that come with the thermometer. They are usually very complete.

What BBT changes can you expect during your cycle? Your BBT is lower during the first two weeks of the menstrual cycle, prior to ovulation. The presence of the hormone estrogen keeps the BBT low. Typically it will range from 97.0 to 97.5 degrees Fahrenheit. Immediately following ovulation, progesterone "turns up the heat" a bit, and there is typically a rise of at least 0.4 to 0.6 degrees until the time of your next menstrual period. This temperature rise will let you know that ovulation has occurred.

How can you chart your BBT? Using either a notebook or graph paper, start recording on day one of your menstrual cycle -- the first day of your period. For each day, record your temperature, any reason for a variation in temperature (if applicable), if you made love that day, and if you were menstruating. This charting will not only be invaluable to you but will provide your health care provider with important information in helping you achieve your fertility goals -- of achieving or avoiding pregnancy.

What factors can affect your BBT? Your temperature can be affected if you didn't get a good night's sleep, if you didn't have at least three hours of consecutive sleep after making love, if you have a fever or if you had an alcoholic drink the night before.

How reliable are the results? The Fertility Awareness Method (FAM) is highly effective in achieving and preventing a pregnancy when used correctly. The more data you have, the more accurate your method will be. It is really best to chart your other two fertility signs, cervical fluid and cervical position, as well as chart your temperature. There are factors that can affect temperatures, but the trick is to learn how to see the forest through the trees and identify a pattern of lows and highs before and after ovulation, rather than focusing on any one particular temperature.



Calendar Method

- What is it? -

The calendar method helps you estimate the time of ovulation after you have charted the lengths of your menstrual cycles for several months.

- How to Use -

Keep track of the lengths of your menstrual cycles for 6-12 months. Day 1 is the first day of your menstrual bleeding. After six or twelve months of data collection, find the length of the shortest and longest menstrual cycle.

Subtract 18 from the length of your shortest cycle.

- This tells you the first fertile day in your average cycle. For example, if your shortest cycle is 24 days long, then your first fertile day would be day 6 of your cycle.

Subtract 11 from your longest cycle.

- This will be the last fertile day in your average cycle. For example, if your longest cycle was 32 days long, then your last fertile day would be day 21 of your cycle

During this fertile period (e.g., Day 6 through Day 21) you have the best chances of getting pregnant.

RECOGNISING THE CHANGES IN CERVICAL MUCUS


During the menstrual cycle changes take place in the mucus produced by the cells lining the cervical canal. Cervical mucus can be recognized by sensation, by appearance and by testing with the fingertip.

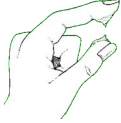

Sensation - Sensation is very important and often the most difficult to learn. Throughout the day the presence or absence of mucus will be recognized by the sensation at the vulva (the vaginal lips), the way the beginning of a period is noticed. The sensation may be a distinct feeling of dryness, of dampness or moistness, stickiness, wetness, slipperiness or lubrication.

Appearance - Soft white toilet tissue should be used to blot or wipe the vulva. There may be dampness only on the tissue resulting from vaginal moistness. This moistness soaks into the tissue and any cervical mucus will appear raised as a blob on the tissue. The color should be noted. It may be white, creamy, opaque, or transparent (clear).

Mucus is often noticed on underclothing, where it will have dried slightly causing some alteration in its characteristics.

Finger Testing - A fingertip can be lightly applied to the mucus on the tissue and then pulled gently away to test its capacity to stretch. It may feel sticky and break easily, or it may feel smoother and slippery like raw egg white and stretch between the thumb and first finger, from a little up to several inches before it breaks. This stretchiness is described as the Spinnbarkeit or Spinn effect, and shows that the mucus is highly fertile.

Sensation at Vulva	Finger Test	Appearance
Moist or Sticky		Early Mucus Scanty Thick White Sticky Holds its shape

Wetter		Transitional Mucus Increasing Amounts Thinner Cloudy Slightly Stretchy
Slippery		Highly Fertile Mucus Profuse Thin Transparent Stretchy (like raw egg white)

CHANGES IN CERVICAL MUCUS DURING THE FERTILITY CYCLE

Pre-ovulatory relatively infertile phase -

- Following the menstrual period there may be several dry days.
- These days may be absent in short cycles and numerous in long cycles.
- A feeling of dryness or a positive sensation of nothingness at the vulva will be experienced. There will be no visible mucus.

The fertile phase –

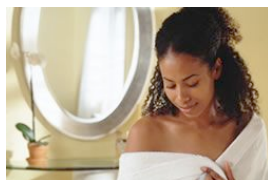
- As the estrogen levels rise, cervical mucus will be felt at the vulva.
- At first it will give a sensation of moistness or stickiness and will appear in scant amounts - white or creamy-colored.
- On finger testing the mucus will hold its shape and break easily.
 - The mucus goes through a transitional phase where increasing amounts of cloudy mucus secretion may be observed.
 - It may be slightly stretchy on finger testing producing a wetter sensation at the vulva.
 - As the estrogen levels continue to rise with approaching ovulation, the mucus will become more profuse, and there may be up to a tenfold increase in volume.
 - It will give a sensation of lubrication or slipperiness at the vulva.
 - The appearance will be similar to that of raw egg white, thin, watery and transparent.
 - On finger-testing this highly fertile mucus may stretch for several inches before it breaks.
 - Fertile mucus maintains the life of sperm, nourishes it and allows it to pass freely through the cervix.
 - In fertile mucus, sperm may live for up to three days, in rare circumstances for five days or even longer.

Peak day –

- Peak day denotes the LAST day on which this highly fertile-type slippery, transparent, stretchy mucus is either seen or felt.

Post-ovulatory completely infertile phase –

- During the post-ovulatory phase, following peak day the slippery sensation is lost and there will be a relatively abrupt return to stickiness or dryness again.
- This subjective symptom reflects the presence of progesterone, which thickens the mucus again forming a plug at the cervix acting as an impenetrable barrier to sperm.
 - The amount and quality of mucus will vary from woman to woman and also from one cycle to the next.
 - A woman should be alert to any changes in sensation and to even relatively small amounts of mucus.



Early Signs of Pregnancy

Pregnancy symptoms differ from woman to woman and pregnancy to pregnancy; however, one of the most significant pregnancy symptoms is a delayed or missed menstrual cycle. Understanding pregnancy symptoms is important because each symptom may be related to something other than pregnancy. Some women experience pregnancy symptoms within a week of conception. For

other women, symptoms may develop over a few weeks or may not be present at all. Below is a listing of some of the most common pregnancy symptoms.

Implantation Bleeding:

Implantation bleeding can be one of the earliest pregnancy symptoms. About 6-12 days after conception, the embryo implants itself into the uterine wall. Some women will experience spotting as well as some cramping.

Other Explanations: Actual menstruation, altered menstruation, changes in birth control pill, infection, or abrasion from intercourse.

Delay/Difference in Menstruation:

A delayed or missed menstruation is the most common pregnancy symptom leading a woman to test for pregnancy. When you become pregnant, your next period should be missed. Many women can bleed while they are pregnant, but typically the bleeding will be shorter or lighter than a normal period. This symptom is commonly explained by other reasons. If you have been sexually active and have missed a period, it is recommended that you take a test.

Other Explanations: Excessive weight gain/loss, fatigue, hormonal problems, tension, stress, ceasing to take the birth control pill, or breast-feeding.

Swollen/Tender Breasts:

Swollen or tender breasts is a pregnancy symptom which may begin as early as 1-2 weeks after conception. Women may notice changes in their breasts; they may be tender to the touch, sore, or swollen.

Other Explanations: Hormonal imbalance, birth control pills, impending menstruation (PMS) can also cause your breasts to be swollen or tender.

Fatigue/Tiredness:

Feeling fatigued or more tired is a pregnancy symptom which can also start as early as the first week after conception.

Other Explanations: Stress, exhaustion, depression, common cold or flu, or other illnesses can also leave you feeling tired or fatigued.

Nausea/Morning Sickness:

This well-known pregnancy symptom will often show up between 2-8 weeks after conception. Some women are fortunate to not deal with morning sickness at all, while others will feel nauseous throughout most of their pregnancy.

Other Explanations: Food poisoning, stress, or other stomach disorders can also cause you to feel queasy.

Backaches:

Lower backaches may be a symptom that occurs early in pregnancy; however, it is common to experience a dull backache throughout an entire pregnancy.

Other Explanations: Impending menstruation, stress, other back problems, and physical or mental strains.

Headaches:

The sudden rise of hormones in your body can cause you to have headaches early in pregnancy.

Other Explanations: Dehydration, caffeine withdrawal, impending menstruation, eye strain, or other ailments can be the source of frequent or chronic headaches.

Frequent Urination:

Around 6-8 weeks after conception, you may find yourself making a few extra trips to the bathroom.

Other Explanations: Urinary tract infection, diabetes, increasing liquid intake, or taking excessive diuretics.

Darkening of Areolas:

If you are pregnant, the skin around your nipples may get darker.

Other Explanations: Hormonal imbalance unrelated to pregnancy or may be a leftover effect from a previous pregnancy.

Food Cravings:

While you may not have a strong desire to eat pickles and ice cream, many women will feel cravings for certain foods when they are pregnant. This can last throughout your entire pregnancy.

Other Explanations: Poor diet, lack of a certain nutrient, stress, depression, or impending menstruation.



Pre-Conception Nutrition

Increasing Fertility:

The Myth: There is no scientific data supporting the notion that certain foods increase your chances for conceiving. Similarly, there is no evidence proving that spicy foods will increase sexual potency by increasing your blood pressure or pulse rate.

The Exception: Oysters contain high levels of zinc, which is a nutrient that contributes to semen and testosterone production in men, and in ovulation and fertility in women. There are several studies that indicate that deficiencies in zinc impede upon both

male and female fertility. Maintaining the recommended dietary allowance of zinc of 15 mg a day can help keep your reproductive system functioning suitably.

The Rule: Maintaining a diet of fruits, vegetables, whole grains, lean meats, and dairy products regularly should provide you with the recommended dietary allowance of vitamins and minerals for the most favorable reproductive functioning.

Conception Preparation:

Begin making healthy changes three months to a year before you conceive. The evidence shows that healthy nutrition and fertility is linked for both men and women. Below is a list of suggestions for healthy nutrition prior to conception.

Folic Acid: The U.S. Public Health Service recommends that women of childbearing age obtain 400 micrograms (0.4 milligrams) of folate or folic acid each day. This B vitamin helps reduce a baby's risk of neural tube birth defects such as spina bifida. If your family has a history of neural tube defects, your doctor may increase your daily intake. Folic acid may be obtained naturally through dark green leafy vegetables (i.e. spinach), citrus fruits, nuts, legumes, whole grains, and fortified breads and cereals. These foods can be supplemented with a prenatal vitamin, which usually contains 800mcg of folic acid. Folic acid is a water-soluble vitamin allowing your body to flush out excess amounts.

Calcium: It is recommended that women get at least 1,000 mgs (three 8 oz glasses of skim milk) of calcium a day if they are considering getting pregnant. Calcium may be obtained from natural sources such as cottage cheese, low-fat yogurt, canned salmon, sardines, rice, and cheese.

Supplements & Vitamins: In addition to a healthy diet, many healthcare providers will encourage supplements to increase the probability that you get all the nutrients you need. Prenatal vitamin can help you get the nutrients you need to help achieve conception.

Caffeine: It is important to wean yourself off of caffeine (including chocolate), because research has shown that more than 300 milligrams of caffeine per day may reduce fertility by 27 percent. Caffeine also impedes upon the body's ability to absorb iron and calcium.

Remove: Artificial sweeteners, alcohol, recreational drugs, and cigarettes all have the potential of harming your soon to be conceived baby.



Fetal Development

Calculating the day your baby begins to develop and keeping track of your pregnancy dates can be a challenge. The development of pregnancy is counted from the first day of the woman's last normal period, even though the development of the fetus does not begin until conception. Pregnancy is calculated from this day because each time a woman has a period, her body is preparing for pregnancy.

The following information is used as a general guide for healthy pregnancy development, although development may vary due to the mother's health or a miscalculation of ovulation. *Gestational age* is the age of the pregnancy from the last normal menstrual period (LMP), and *fetal age* is the actual age of the growing baby. Most references to pregnancy are usually in gestational age rather than fetal age development, but we have included both so that it is clear what stage development is at. Measurements will be given in total length from head to toe, but each pregnancy can differ in weight and length measurements, and these are just a general guideline.

Pregnancy is also divided into trimesters, which last about 12 - 14 weeks each. Similar to development, these can be calculated from different dates so not all trimester calculations will equal the same. The following information divides the three trimesters into a little over 3 completed months each. The first trimester is week 1 through the end of week 13. The second trimester usually ends around the 26th week and consists of the 4th, 5th and 6th completed months. The third trimester can end anywhere between the 38th - 42nd week and is the 7th, 8th and 9th completed months of pregnancy.