Fertility Awareness is a process that helps you to get to know your body and your cycle. This information can be very helpful if you are trying, or not trying, to get pregnant.

The method is based on some basic facts.

1. A human egg lives for 12-24 hours.
2. Human sperm have a life span of 2-5 days.
3. You are most fertile 2 days before ovulation to 1 day after ovulation.

The tricky part is figuring out when ovulation occurs, so that we can inseminate at the right time and maximize our chances of getting pregnant. If you keep in mind the lifespan of an egg and of sperm, you want to inseminate just before you ovulate, so that you catch the egg during its’ short lifespan.

There are a few different methods which can help you to determine when you are most fertile. Today I will talk about The Menstrual Cycle, Cervical Mucous Method, Cervical Positioning and Basal Body Temperature.

The Menstrual Cycle

It is important to get to know your menstrual cycle when you are trying to get pregnant. I usually recommend charting your cycle on a calendar for 6 months before trying to get pregnant. This will allow you to understand the length of your cycle, and will be very helpful in determining when you are ovulating. That’s the time of the month when an egg is released and is able to get fertilized.

Day 1 is the 1st day of your period. The cycle works a bit backwards to how most of us are taught. We ovulate 14 days before we get our period, not
the other way around. This means that if you have a 28 day cycle, you ovulate on day 14. If you have a 30 day cycle, you ovulate on day 16.

A menstrual cycle is broken down into 4 phases:

1. Menstruation (days 1-4) – this is when the uterus sheds its’ lining
2. Follicular Phase (days 5-13) – this is when the follicles in the ovaries start to develop, and the lining of the uterus thickens because of increasing amounts of estrogen. Usually 1 or 2 follicles become dominant, each containing maturing eggs. When the egg has matured, it secretes estradiol, which triggers the acute release of a hormone called luteinizing hormone (LH). The release of LH matures the egg and weakens the wall of the follicle, leading to ovulation. The LH surge lasts approximately 48 hours. When we go to the doctor for blood work to determine our most fertile time, they are checking for the LH surge, as this predicts ovulation and indicates that it is the most optimal time for insemination.
3. Ovulation (day 14) – the is the day that the egg (ovum) is released
4. Luteal phase (days 15-28) – after the egg is released, the follicle atrophies and becomes a corpus luteum. The corpus luteum produces progesterone, which stimulates changes in the uterine lining to prepare to receive a fertilized egg and allow it to implant. If implantation doesn’t occur, the corpus luteum dies and the progesterone levels drop, triggering the period.

The next few methods which I’ll talk about will help you to figure out which hormonal phase you are in, so that you can determine when your LH is surging and time insemination.
**Basal Body Temperature**

Basal body temperature, or the temperature of your body at rest, 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 (F). Immediately before ovulation, the temperature will drop briefly. Within 12 hours of 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. If your BBT remains elevated even past the time that your menstrual period is due, it could be a very early indicator of pregnancy.

Presence of a fever, emotional upset, insufficient sleep, consumption of alcohol or the use of an electric blanket or heating pad can affect your BBT.

**How do you measure your basal body temperature?**

When beginning to take your basal body temperature, it may be helpful to follow these guidelines:

- When measuring your BBT it is important to use a special thermometer intended for this purpose.
- Shake down your thermometer before you go to bed -- if using a mercury thermometer.
- Keep your thermometer in easy reach, next to your bed.
- Keep a notebook/graph next to your bed along with a pen to record your temperature.
- Take your temperature first thing in the morning -- even before getting up to go to the bathroom.
- It is important to take your temperature as close to the same time every morning as possible.
- Keep your thermometer in place for five minutes before reading.
Cervical Mucus

You may or may not be aware that changes in vaginal discharge can help you to determine how fertile you are.

In observing changes in your cervical mucus, you will be looking for changes in consistency, quantity and colour. Pick one time of the day to check your cervical secretions. Many people find it convenient to observe changes while using the bathroom. Though changes can be observed externally, when wiping yourself with white toilet tissue, it can be more accurate to check cervical secretions by inserting one or two fingers into your vagina.

- Does your vagina feel dry, moist or very wet?
- Do any secretions remain on your fingers or the tissue?
- Is your cervical mucus very stretchy and slippery, creamy or tacky feeling?
- Are your secretions clear, white or almost nonexistent?
- Can you stretch your cervical mucus between your two fingers? (If so, this is very fertile mucus!)
Keep in mind that sexual arousal, the presence of semen, use of lubricants or spermicides, use of an antihistamine (drying) or a decongestant (liquefying) or a vaginal infection can affect your cervical secretions.

A few days before ovulation, the mucus becomes transparent, watery and yellowish. On the day of ovulation itself, what comes out is thicker, wet and thread-like (Egg Whites) and might also produce a moist feeling in the vagina. Within a day of ovulation, there is less mucus and it feels thicker and stickier.

**Cervical Position**

The position of your cervix, the lower portion of the uterus, can also be very helpful in gauging your fertility. In the first half of your menstrual cycle, prior to ovulation, your cervix will feel firm, and be low in your vagina. It will feel closed and dry. Around the time of ovulation, the cervix softens, opens, lifts and becomes very receptive to sperm, allowing them to more easily make their way to meet the waiting egg. Within a few days following ovulation, the cervix again becomes firm and the entrance is closed.

**Here are some guidelines for checking the position of your cervix:**

- Wash your hands prior to checking your cervix.
- Check the position of your cervix around the same time each day.
- Many people find it easy to check their cervix while they are sitting on the toilet.
- Gently insert one or two fingers into your vagina. Reaching back you should be able to feel your cervix.
- Does your cervix seem easy to reach (low) or difficult to reach (high)?
- Does your cervix feel soft (like your lips) or firm (like your nose)?
- Does the entrance of your cervix feel slightly open or closed?
- Does your cervix feel dry, moist or very wet?
- If you are charting your fertility signs, record your observations.
Diet:

You should follow normal healthy eating habits when you are trying to conceive. There are a few things which are of particular importance that I’d like to bring up.

**Folic Acid** – 1-4mg per day is recommended PRE-Conception! Folic acid stimulates the development of female sex hormones, while reducing the risk of spina bifida in infants. Oranges and lemons are good sources of folic acid.

**Zinc** – several studies have shown that zinc deficiencies can impair both male and female fertility. Zinc helps cell division in the development of the fetus, while a lack of zinc can decrease the production of healthy eggs prior to conception. Zinc is the only mineral conclusively shown to increase fertility rates. 15mg is recommended. Zinc-rich foods include oysters, sardines, steak, chicken and legumes (dried beans, black-eyed peas, lentils, peas, soy products and whole grains).

**Organic** - I’m a big fan of organic foods, especially when you are trying to conceive or are pregnant. There are many chemicals and hormones added to our foods, and the added hormones can effect fertility.

**Yams** – WILD YAM - A professor at the University of Ibadan in Nigeria conducted studies on the native Yoruba tribe who have one of the highest rate of TWIN BIRTHS in the world. The professor found that their diet contained large amounts of yams. Science is beginning to support the long-held belief that yams enhance fertility due to containing steroid-like compounds which are easily converted into sex hormones in the body, triggering the release of FSH which stimulates the ovaries to release an egg. High yam consumption appears to stimulate release of more than one egg each month. Wild yam is widely available in a cream form, often marketed as a "progesterone cream." It is rubbed on the abdomen, thighs, and upper arm areas where it is readily absorbed, and is also available in capsule form, sometimes combined with other herbs to regulate hormone function.

**Fish** – although fish is a very healthy food, most fish are contaminated with mercury, which can effect the healthy growth of a fetus and can cause developmental delays, brain damage and mental retardation. Mercury can stay in a woman’s bloodstream for over a year, so avoiding high mercury fish (white tuna, shark, swordfish, marlin, kingfish) while you are trying to get pregnant is important. Omega 3 fatty acids boost fertility and are great for your health, so try to eat fish with low mercury levels (salmon, flounder, trout, haddock, tilapia, canned chunk light tuna – not albacore – up to 12 oz
per week). Omega 3 can also be found in flax seeds and is being added to many foods, like eggs, yogurt and breads.

**Whole Grains** - Choosing breads with whole grains will help to ensure that you get enough fibre. Whole grains also contain nutrients that help to stimulate total body health. Eating whole grains is especially important if you have polycystic ovary syndrome (PCOS), a hormonal imbalance which increases insulin levels. PCOS can lead to irregular ovulation, which will hinder conception.

**Calcium** - Make sure that you're getting enough calcium. Dairy foods, such as milk, yogurt and cheese are all good sources, however, these foods contain saturated fats, which should only be consumed in moderation. Many vegetables, such as broccoli, kale and oranges are as good a source of calcium as dairy products. Fish, such as sardines and salmon, are also good sources of calcium.

**Vitamins & Antioxidants** - Vegetables, such as peas, broccoli and pumpkin, are also excellent sources of fibre, vitamins and minerals. When choosing fruits and veggies, look for a bright hue; the brighter the color, the more nutrients the food contains. Blueberries, kale and red peppers are especially healthful. Antioxidants in these foods also help to counteract the negative effects of pollution and the sun on our bodies.

High-quality **multivitamins** are an excellent way to ensure that a diet contains enough nutrients. Vitamins containing zinc, folic acid and B vitamins are crucial. A supplement containing essential fatty acids is also important.

**Fluids** - A high fluid intake is also important when trying to conceive. In order to stay hydrated, a woman trying to get pregnant should be doubly sure to drink at least 6 to 8 glasses of water and natural fruit juices (that do not contain added sugar) per day.

**An Unhealthy Diet: Foods to Avoid**

**Preservatives & Artificial Sweeteners** - Foods containing preservatives and other chemicals, such as artificial sweeteners, should be avoided because they affect blood sugar levels and hormonal balance. Foods high in fat should also not be consumed.
Avoid **vitamin A** – more than 10,000IU’s daily can cause birth defects (in grains, cereals, granola bars)

**Caffeine** - Caffeine should also be limited, especially if you're having trouble conceiving, or while undergoing IVF. Caffeine constricts blood vessels, which reduces blood flow to the uterus and prevents eggs from attaching to the uterine wall.

**Deli meats and soft cheeses** – Listeria is a dangerous bacteria which may cause illness and or death of fetus & babies. Listeria can survive the pasteurization process, can grow in the fridge and can survive in the freezer

**Sushi/Raw Fish** – Listeria & parasites

**Refined carbs**, such as white bread, pasta and rice, should be limited. These foods lack nutrients, such as iron and B vitamins, which are important for providing a rich nutrient base to a potential fetus. Rye and whole-wheat sourdough breads are good options.

**Meat** - Eating a lot of meat is not recommended. Meat raises the body's ammonia levels, which inhibits the implantation of the egg in the uterus.

**Alcohol, Drugs, Smoking** - It is also recommended that you avoid drinking alcohol, taking illicit drugs and smoking when you're trying to conceive. Drinking more than two alcoholic beverages per week can increase levels of prolactin, the hormone that regulates milk production and reduces the chance of conception while nursing.

**Soybeans: Helpful or Harmful?**
Soybeans are not recommended when trying to conceive. This is because they contain a component that is similar to estrogen. This false estrogen can increase the length of menstrual cycles; researchers found that consuming 60 mg of soy per day can add about 2.5 days to a person's menstrual cycle, decreasing her fertility. Soy also lowers the levels of two hormones necessary for ovulation, luteinizing hormone (LH) and follicle-stimulating hormone (FSH).

**A Couple of Things about Sperm**
Since eating high quantities of meat produces ammonia, this can affect sperm activity. Sperm prefer alkaline conditions.

Zinc is also important as it helps boost sperm production and testosterone metabolism. Soy is not recommended because it contains phytate, which affect the absorption of zinc disrupting those processes.