Gynecologists in China, trained in Chinese medicine, have less access to blood tests and exploratory surgery, and thus rely much more heavily on the information from basal body temperature charting than Western trained physicians.

BBT is a very useful tool in learning about the cycle and the body, and is best coupled with observing other changes such as mood, sex drive, sex timing, blood flow, headaches, insomnia, digestion, elimination, pain, breast tissue, and vaginal secretion.

These tools combined are used in the systems of the Billings method, Fertility Awareness Method and Natural Family Planning and now boast a 98% success rate in natural contraception. These techniques can be studied as well for use in fertility enhancement.

We covered how to take your BBT earlier in the course. Now let’s take a deeper look at why changes occur in the cycle.

**Cervical Mucus**

The estrogen peak, which occurs about 6 days prior to ovulation, stimulates the production of cervical mucus.

The cervix contains glands that each produce a different type of mucus, totaling four types. The first, G-type, is produced closest to the vagina and is thick and impenetrable for sperm. It is produced in non-ovulatory times in the cycle, and is associated with a dry feeling at the vagina.

The second type, L-type, is produced higher up the cervix, and begins as estrogen starts to rise. It is more liquidy and causes a sticky or wet sensation. This type excels at filtering out abnormal sperm.

As ovulation time draws closer, higher up the cervix S-type mucus is produced. This is the egg-white type mucus, and it can mix with the L-type. This type allows for easy travel of sperm into the uterus.

Finally as ovulation is imminent, the top of the cervix produces P-type mucus, named P for its rich potassium content. This secretion is thinner and very slippery and lubricative.
This type seems to give the sperm a nutrient boost- a special ‘bon voyage’ for their travels! The most fertile day of the cycle is the last day this type of mucus is being produced. It will be the last day you observe fertile mucus. It is the day before or the day of egg release.

You may not notice each type individually, as they will mix over time.

Cervical mucus, during the ovulatory phase, is designed to facilitate the longevity and success of the sperm. Sperm can live at most 5 days, although within the first 48 hours is the most likely time period they’ll be able to fertilize.

The egg, however, is fertilizable for only 6-12 hours after being released. Some studies indicate that the sexual timing for best conception rate is 48 hours before ovulation.

Note that some medications will effect cervical mucus:

The birth control pill, even after ceasing its use, can result in a lack of fertile cervical mucus for up to 30 months.

Antibiotic use can result in vaginal candida, overcoming the cervical mucus.

NSAIDs, such as ibuprofen, could result in more scanty cervical mucus.

SSRIs (antidepressants) can shorten the number of days cervical mucus us produced.

Antihistamines can dry up cervical mucus.

Clomifene (Clomid) inhibits the function of mucus production in the cervix.

Unhealthy Cervical Mucus

If you are observing yellow, green or foul-smelling discharge, this is a sign of infection. This could be due to an STD, candida overgrowth, or a pH issue. Our vagina is naturally acidic, and microbes will be kept at bay when it can stay that way.

However semen is more alkaline, so that can throw off your pH. So can sugar, soaps, tampon and menstrual blood. That's way you may feel itchy after sex or around your period.

To balance out, you can:
- Use condoms during your non-fertile time or while ‘in treatment’
- Wash with just water or with a pH balanced soap such as Nature’s Plus Natural Cleansing Bar
- Eat fermented foods and take probiotics
- Drink unsweetened cranberry juice
- Wash or douche with diluted, raw apple cider vinegar
- Use RepHresh gel
- Always avoid white sugar & choose nutrient dense foods
- Support your immune system with sufficient sleep and lowered stress
- Use a keeper, organic pad or diaphragm to catch menstrual blood

**Cervical Position**

As ovulation approaches, the cervix moves higher, becomes softer, and the opening is more palpable. After ovulation, the cervix drops lower again.

**Phases in the Cycle**

**Follicular phase**

The follicular phase is the first half of the cycle before ovulation. The temperature of this phase should be about 97.5 °F, or in a range of 97.1° to 97.7°. It is ideally 14 days long. You want a variation of temperature of no more than .5° F during this phase.

**Patterns of disharmony in the follicular phase:**

1. **Low temperature:**

   If your temperature is below 97 °F or 36 °C, this is a sign of low metabolic rate and low thyroid activity should be suspected.

2. **Long follicular phase:**

   The follicular phase can be long when the blood is not nourishing the egg enough, in advanced age, which a lack of strong hormonal signaling, or in PCOS. Look for other signs and symptoms.

3. **Short follicular phase:**

   When the follicular phase is only 9-10 days, we should look for signs of infection. We should also consider nourishing the blood, and checking for extra estrogen due to growths. The follicle needs time to fully mature before being released, so we must treat a short follicular phase.

4. **High temperature:**

   When the follicular temperature is above the normal range, it could indicate hyperthyroid. It may accompany scanty or acidic cervical mucus, or antisperm antibodies. The uterine lining may not be developing fully.

5. **High temperature at start of follicular phase:**
The temperature should about a half a degree (from about 98º to 97.5º F) on day 1 or 2 of the cycle and menstrual flow. If not is could indicate endometriosis. I also suspect it could indicate poor liver/GB function or general toxicity.

6. Temperature is unstable:

Variations of temperatures of more than 0.5º F or 0.2 - 0.3º C. Fever, lack of sleep, or alcohol consumption will cause unusually high readings. If an unstable pattern is recurrent for you, it often indicates anxiety/ stress.

Ovulation

Ovulation should occur at about day 14. There may be a dip in temperature noted in your BBT as the enlarged follicle produces large quantities of estrogen. As this estrogen surge lasts only 12 hours, you may not see a dip.

We then want to see a sharp rise in temperature of about 1º F, or at least .5º F. When you see elevated temperatures for 2-3 days, your fertile window has closed.

Luteal Phase

Your temperature should be more steady in this phase, varying no more than .2º F. Once you have your thermal shift, it should be maintained for at least 11 days, and ideally 13-14 days.

If conception occurs, the corpus luteum (the sac the follicle left behind when it was released) will get the signal to continue to produce progesterone for another 6 weeks until the placenta produces it for itself.

Patterns of Disharmony in the Luteal Phase:

1. Luteal phase rises slowly

If it takes more than 3 days for your temperature to rise at least .6º F, the body is not reacting to progesterone in circulation quickly. I feel this could be in issue with the hypothalamus/pituitary, a weak liver, or too low a level of progesterone.

2. Luteal phase is too short

If the luteal phase lasts only 3-4 days followed by bleeding, ovulation may not have occurred.

If the luteal phase lasts only 5-6 days before bleeding, the corpus luteum may have disintegrated early.
If the luteal phase lasts 8-10 days than the condition is not as severe, but the luteal phase will still not be strong enough to ensure implantation.

If the luteal phase temperatures drop around day 11-12 and spotting begins, progesterone has declined early.

3. Luteal phase temperatures too low

If the rise is temperature is less than .6º F than it is considered a low luteal phase. These cases require a rebuilding of the foundations- nourished blood, strong hormonal signaling- to develop a rise in these luteal phase temperatures.

4. Luteal phase is unstable

If you get a good temperature rise, but then the temperature drops and rises in a ‘sawtooth’ pattern, this is usually due to stress and anxiety and the follicular phase will be similarly effected.

If the basal body temperature becomes quite high, we can suspect a ‘heat’ pattern.

5. Luteal phase has a drop in the middle

This is sometimes called the saddle pattern as the middle of luteal phase dips down. This pattern will look like a pair of mountains in the luteal phase. This will usually occur one week after ovulation. It indicates a surge of estrogen or a drop in progesterone. This is not necessarily a ‘deal breaker’ for fertility, but it is also not ideal and we should attempt to clear out excess estrogens or boost progesterone as needed.

6. Luteal phase continues beyond 14 days

This is usually occurring because you are pregnant! You may even have belling if you are pregnant. If your temperature stays high but you have some bleeding, you could do a pregnancy test.

You may unfortunately find that your temperature stay high longer than 14 days, but then drops and the period comes. This may be a miscarriage.

The other possible scenario is that a cyst on the corpus luteum is causing a continued high temperature.

Note:
Vaginal temperature testing can be used when temperatures are erratic. Temperatures must be taken around the same time as temp. raises over time. Can raise 0.9º C over one hour. If you wake up later or earlier, adjust by moving ‘one square’ up or down as needed.