



Natural Family Planning

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1. DEFINITION OF NATURAL FAMILY PLANNING

Natural Family Planning (NFP) is a general term that applies to various methods that have been developed to help determine the fertile (may get pregnant) and infertile (not pregnant) times of a woman's monthly menstrual cycle. These methods can be used to achieve or avoid pregnancy. All of the methods rely on the interpretation of natural (biological) signs or indicators of fertility. Implicit in these methods are that couples abstain from intercourse, genital contact during the fertile time of the woman's cycle if they are avoiding pregnancy. Use of any artificial means to interfere with fertility is not natural family planning.

There are four basic methods of natural family planning:

- **The Calendar Method or (rhythm) or Ogino-Knaus-** relies on counting cycle length and a simple formula to determine the beginning and end of fertility.
- **Basal Body Temperature (BBT)** - recording of the woman's daily waking temperature and observing the changing patterns to confirm the post-ovulatory phase.
- **The Ovulation Method (OM) or Cervical Mucus-** observing and recording the patterns and changes of cervical fluids to identify the most fertile period to avoid intercourse.
- **The Sympto-thermal (ST) Method** - combining daily waking temperature, changes in cervical fluid, cycle length and other minor signs of fertility.

Intrauterine Device (IUD), Morning After Pills are early abortion methods which should be avoided. Oral Contraceptive Pills, Deposhot, or Implant Birth Control suppress the ovulation but they also affect the endometrium (uterine mucosa) so preventing the implantation of the early embryo and also having mechanism of early abortion.

PHILOSOPHY OF NATURAL FAMILY PLANNING

Sexuality is an integral and good part of human life. When used in an ordered (proper way), it is life giving, integrative and unifying of human relationships. An act of intercourse between a married man and woman is a true expression of love when it is open to the possibility of new human life and is a total giving of self. Total giving of self includes giving and receiving the gift of fertility. Any act of suppressing, blocking or destroying the gift of fertility or destroying new human life once begun is an act against love and life.

Although couples are called to be generous to new life, there are times within married life when spacing or limiting the number of children is prudent and responsible. A married couple discerns this responsibility in a prayerful and selfless way. Serious reasons are determined within the context of valuing the couple's duties towards God, themselves, their family, and society in a correct ordering of values. The means to do so must be truthful to love, the integrity of the sexual act and to the gift of fertility. NFP is a means in which a couple learns how to monitor the woman's monthly cycle and to interpret the natural signs that tell them when the woman is fertile or not. If the couple has serious reasons to avoid pregnancy they then periodically abstain from intercourse and genital contact on the fertile times of the cycle.

2. THE CALENDAR METHOD or (RHYTHM) or OGINO-KNAUS:

The Calendar Method is based on the knowledge that ovulation usually occurs **14 days before the following menstruation** regardless of the overall length of the cycle. It can give or take 1-2 days, so ovulation is **usually around 12-16 days before the start of the next menstruation**.

Sperms are viable in the female genital tract for 72 hours (**but can live up to 7 days!**). Ovum (egg after released) can survive for 24 hours (**maximum 48 hours**). If abstaining from intercourse 4 days prior to ovulation and 3 days after ovulation, the chance to get pregnancy is low. **It is safer to avoid intercourse 7 days before and 3 days after ovulation.**

There are three basic phases of a woman's menstrual cycle: pre-ovulation (*the time before Ovulation*); ovulation (*the time the egg is released by the ovary*); and post ovulation (*the time after the egg dies*).

Pre-ovulatory phase is relatively infertile (unsafe) because ovulation may suddenly come early due to physiological changes such as stress, sadness, happiness, anxiety or anger.

Post-ovulatory phase is infertile (safe time) because ovum can only be viable for 2 days after ovulation. It does not mean 100% like mathematics because we are not machines. The safest time is around 10 days after ovulation.

3.1. Regular Cycles:

Ovulation usually occurs 14 days before the following menstruation. It can be 1 to 2 days early or late so ovulation is usually around 12-16 days before the start of the next menstruation.

Cycle length	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Ovulation day	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

Example: Cycle of 30 days. Ovulation will be: $30-14=16$. It may occur around days 14 to 18 from the first day of menstruation.

Practice: Cycle of 28 days. This month the menstruation begins on the 10th (month of 30 days). The following menstruation will be on the 8th of next month. Ovulation occurs 14 days before the next menstruation. Counting back from the 8th of next month, ovulation will be on the 24th of this month. Intercourse should be avoided from the 20th to the 27th (4 days before and 3 days after ovulation). Safer, the couple should abstain from intercourse from the 17th to 27th (**7 days before and 3 days after ovulation**). However, several days before the 17th is still possible fertile (pregnant) because the ovulation can happen suddenly and the sperm can be in the female genital tract 7 days earlier to unite with the egg. That is why this pre-ovulatory phase is relatively infertile. To be safe, intercourse should be after the 27th (3 days after the ovulation).

3.2. Irregular Cycles:

From a record of at least six cycles, the lengths of the shortest cycle and the longest cycle are noted. Remember numbers **18** and **11**. (To be safer, some recommend using numbers 21 & 10)

Ovulation occurs 12-16 days before the following menstruation regardless of the overall length of the cycle. Allowing three days for the viability of the sperm in the female genital tract and two days for the life of the ovum and taking into account that ovulation might occur on any of 5 days in each cycle a formula was evolved:

Shortest cycle (S) minus 18		= First fertile day of the pre-ovulatory phase	
Longest cycle (L) minus 11		= Last fertile day	
For example: Length of cycles during last six months = 28, 29, 30, 26 , 31 , 28			
(S = 26)	S - 18	= First fertile day	26 - 18 = 08
(L = 31)	L - 11	= Last fertile day	31 - 11 = 20

The first day to avoid sex from the beginning of the menstruation is day 8.

The last day to avoid sex from the beginning of the menstruation is day 20.

To avoid conception, couples were therefore recommended to **abstain from intercourse from the 8th-20th days inclusive**.

Having intercourse during the menstruation is still possible fertile, especially for women with short cycles. For example, if the cycle is 21 days, the first day can get pregnant is $21 - 18 = 3$. The woman may conceive on the 3rd day of menstruation!

Golden rules for calendar method:

While this method is fairly simple to follow, it is not applicable to all women, especially the ones with irregular cycles. When used to avoid pregnancy, the rhythm method has a perfect-use failure rate of up to 9% per year, with an average failure rate of 13 to 20% for irregular cycles. Do not use this method alone if your cycles are very irregular.

Although the calendar method is not sufficiently reliable to be recommended for use as a single indicator, the information gained by recording the length of cycles and their variability is useful.

3. BASAL BODY TEMPERATURE (BBT) METHOD:

During the first part of the menstrual cycle (preovulatory phase), basal body temperature remains relatively low. **Once ovulation occurs, the body's core temperature increases by at least 0.4 Fahrenheit degree (or 0.2° Celsius) to a full degree Fahrenheit or higher.** This temperature remains high and elevated for the rest of the post-ovulatory phase. Temperature then subsides when starting the new menstruation.

Seeing a sustained increase in your temperature, one that lasts for at least 3 days, indicates that ovulation has taken place but does not predict it before it happens. When you know ovulation has taken place, it can be assumed that having sex during the rest of your menstrual cycle will not result in pregnancy (very safe post-ovulatory phase).

You should refrain for intercourse 6 days before the temperature rise until 3 days after. The sustained rising temperature indicates that ovulation has occurred but does not predict it before it happens. Before you ovulate, though, it can be a bit harder to determine exactly when the "safest" time is to have sex. Don't forget that sperm can live up to 7 days after intercourse. To be completely safe, you should consider unsafe from the first day of period until 3 days after temperature shift. That is why ***Pre-ovulatory phase is unsafe.***

How to do it?

-Take your temperature in the normal fashion each morning as soon as you wake up and before you do anything else (not going to the toilet, having a cup of coffee, brushing teeth, washing face, etc). Take the temperature at approximately the same time each day and after a minimum of 5-6 hours sleep.

-You can take your temperature orally, vaginally, or rectally - just stay with the same method for the entire cycle. Place the thermometer the same way each day (same location of your mouth, same depth vaginally and rectally). Oral temperature is usually preferred given easily.

-Alcohol, stress, lacking sleep, fever, and diseases may make our temperature rise.

-You can use mercury or digital thermometer. Digital thermometer is used easily but may cause error due to low battery. Choose the thermometer that can tell one-tenth degree increment of the Fahrenheit or Celsius degree. You need to shake the mercury thermometer and read after 5 minutes.

-Register your basal temperature on your BBT chart each day.

-In addition to recording your basal body temperature, you can also record information about other monthly changes with your body. This can include changes in your cervical mucus, cramps, spotting, breast tenderness and your general mood, all of which can be affected by your menstrual cycle and can give us better information about the ovulation time.

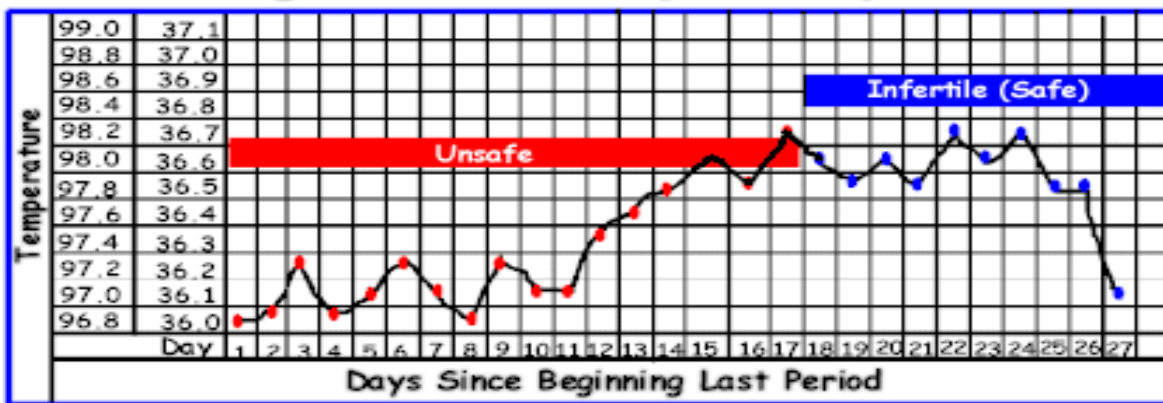
Advantages:

- Proven to be very effective.
- Has a failure rate of 15% but as low as 2% per year for perfect users.
- Useful to **identify when ovulation has passed** and the likelihood of conception declines.
- Offers a double check against other fertility indicators. This is useful to reflect back over a given cycle.
- Can be used to estimate post-ovulatory phase length across many cycles.

Disadvantages:

- **Does not identify ovulation until after it has already passed.**
- Requires consistency in taking daily temperature readings to be effective.
- Environmental and other factors can influence temperature and make the temperature shift due to hormonal changes, harder to detect.

Charting Basal Body Temperature



Example: The BBT charting of cycle of 27 days. During the pre-ovulatory phase, the temperature is low, from 96.8° to 97.2° F. **On day 13, the temperature rises suddenly to 97.6° F and maintains elevated above 97.8° F (97.8°-98.2°) until day 16 and continues to day 26 in the last part of the cycle.** The temperature subsides on day 27 before the following menstruation which starts on day 28. Ovulation occurs on day 13 of this cycle.

The sustained rising temperature for 3 consecutive days indicates that ovulation has occurred but does not predict it before it happens. **From the first day of period until day 16 is considered unsafe because ovulation may occur suddenly and sperm can live up to 7 days.**

Having sex after day 16 (3 days after the temperature elevates on day 13 and maintains elevated) during the rest of this menstrual cycle (from day 17 to 27) will not result in pregnancy. This post-ovulatory phase is very safe.

4. CERVICAL MUCUS METHOD (BILLINGS): Very effective

Cervical mucus changes its characteristics during the menstrual cycle and can provide the woman information about the **beginning, peak, and end of the fertile phase**. Based on changes in the characteristics of cervical mucus and the resulting vulval sensations, the couple should abstain from having sex during the fertile period if they do not want to have conception.



Your cervix is affected by the monthly changes in your body. Just after you finish your period, your cervix produces very little, if any, mucus causing you to have a few days where your vagina appears to be quite dry. As you progress through your cycle, your body will begin to produce more cervical mucus. Beginning cervical mucus is thick, sticky, and holds its shape.

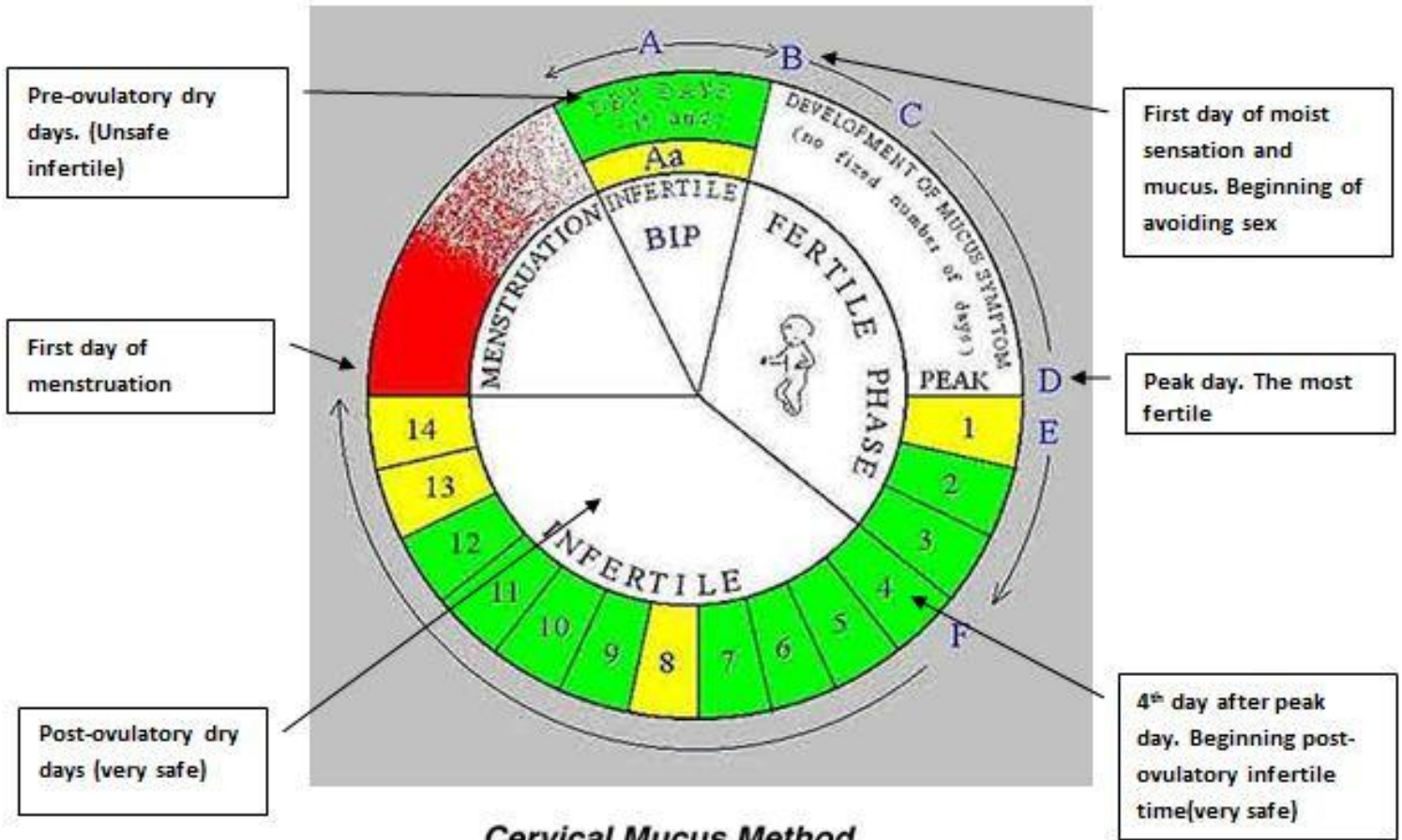
As you get closer to ovulation, your cervical mucus will become thinner and stickier. **When ovulation is about to occur, your cervical mucus will be clear, slippery and very stretchy, similar to a raw egg white.** You can stretch the mucus between your fingers at least 1-2 inches without its breaking! **The PEAK DAY of cervical mucus is the last day of any mucus that is clear (transparent), stretchy, and/or has the sensation of slippery.** Ovulation usually occurs 1 day after the peak day or around this day. The quantity of cervical mucus is not as important as the changing characteristics: from little, sticky, tacky, cloudy to profuse, slippery (lubricative), clear, very stretchy, and similar to raw egg white which is the most fertile time. While this is great for women who are trying to conceive, women who are trying to avoid pregnancy will want to abstain from sex during this time.

After ovulation, the production of mucus is slowed down again. If you do notice any mucus, it will likely be thicker and cloudier. You will then feel dry again until the next menstruation.

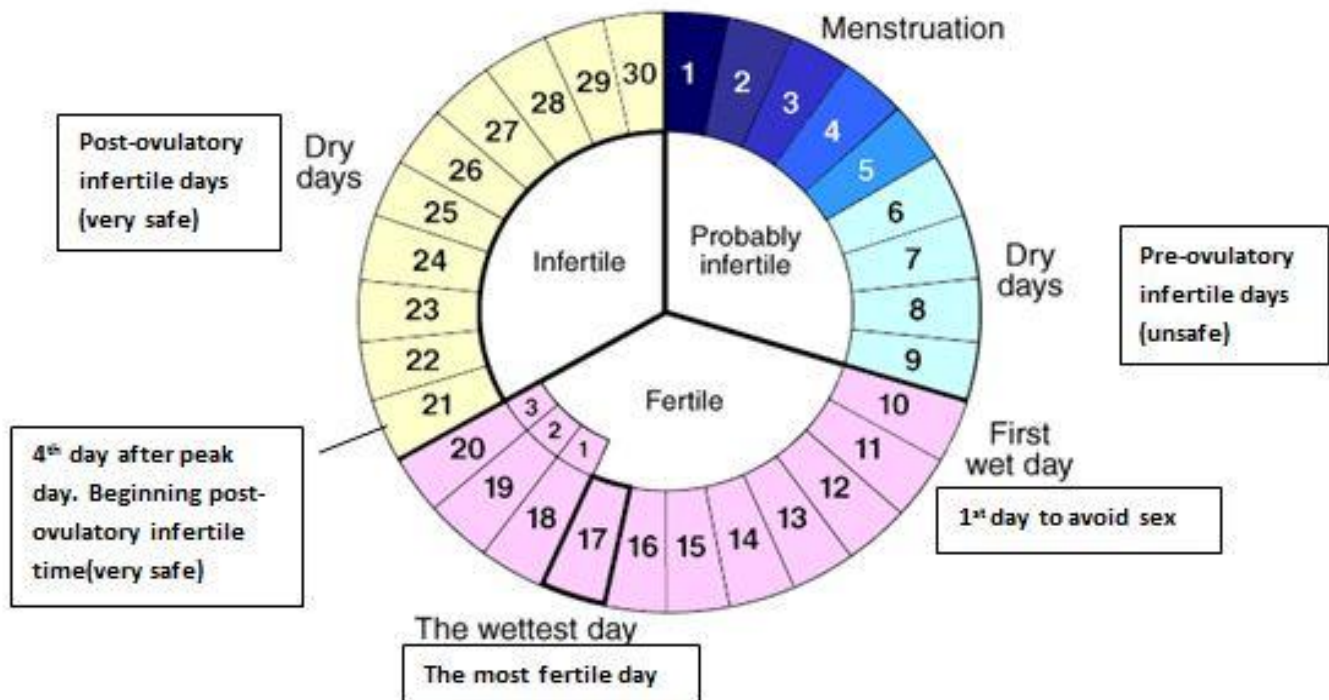
A woman who observes her mucus on a daily basis will be able to know that **the beginning of her fertility occurs when mucus is first felt or seen. This is the beginning of the time that woman should avoid sex.** Her fertility is high when the mucus becomes slightly stretchy and thinner. **The peak of her fertility occurs when the mucus is very clear, stretchy, and slippery. The end of her fertility begins 3 full days after the last day she observes peak type mucus (or the 4th day after the peak) until the beginning of the next menstrual flow.** She will only know the Peak day of cervical mucus retrospectively. The released egg can only survive for 2 days after ovulation and **this post-ovulatory phase will not result in pregnancy** (not 100%).



Summary of Cervical Mucus Changes:



Cervical Mucus Method



Golden rules for cervical mucus method:

1. Fertile days include the menstrual flow. Avoid intercourse and begin to observe the cervical mucus. Ovulation may occur during menstruation with short cycles. Menstruation may mask the mucus observing.
2. The dry days after menstruation is relatively infertile (**unsafe**). **Sudden ovulation** may happen. Have sex only on alternate dry evenings because you need to observe the mucus the next day. Seminal fluid after intercourse may cause confusion with the mucus.
3. ***All mucus days, from the 1ST day the mucus appears through to the Peak Day and 3 days after the peak are fertile times. Avoid intercourse whenever you recognize the cervical mucus.***
4. **The PEAK DAY is the most fertile time.**
5. **The safest time is post-ovulatory dry days which begin from the 4th day after Peak Day or the 3rd day after the temperature shift whatever comes first until the next menstruation.**

Remember:

- Lubricating fluid from the Bartholin secreted during intercourse or when having stimulations (thought, hearing, seeing, smelling, touching...): like saliva between 2 fingers, quickly diluted in a glass of water, disappears after stimulation has stopped, will get dry quickly after 1 hour.
- Cervical mucus during ovulation time: sticky, stretchy, and slippery for several days, not diluted in water, like oil.
- You should also need to differentiate the seminal fluid after intercourse or due to inflammation. Avoid douching or using soap in the vulva because it will alter the cervical mucus or make it disappeared.
- Checking the mucus: Use your finger or toilet paper to wipe across the opening of vagina and then take a look at the mucus. Or wear a panty liner and examine any cervical mucus that may be left on it (this can be hard to detect, though).The best way: reach in and get a sample of your cervical mucus. Examine the consistency and try to stretch the mucus between your fingers.

Advantages and Disadvantages:

- Proven to be one of **the most effective symptoms**.
- One of **the best indicators of ovulation prior to its occurrence**.
- **Identifies the most fertile period** to avoid intercourse or get pregnancy.
- Can suggest when to begin taking LH ovulation test (quick and easy, can buy the kit over-the-counter) as signs of fertility develop to help in determine the ovulation more accurate.
- Requires a couple of cycles to get familiar with the typical variation in characteristics of cervical mucus.
- Recorded data is qualitative and requires interpretation
- Semen may obscure observations

Some Characteristics of Cervical Mucus



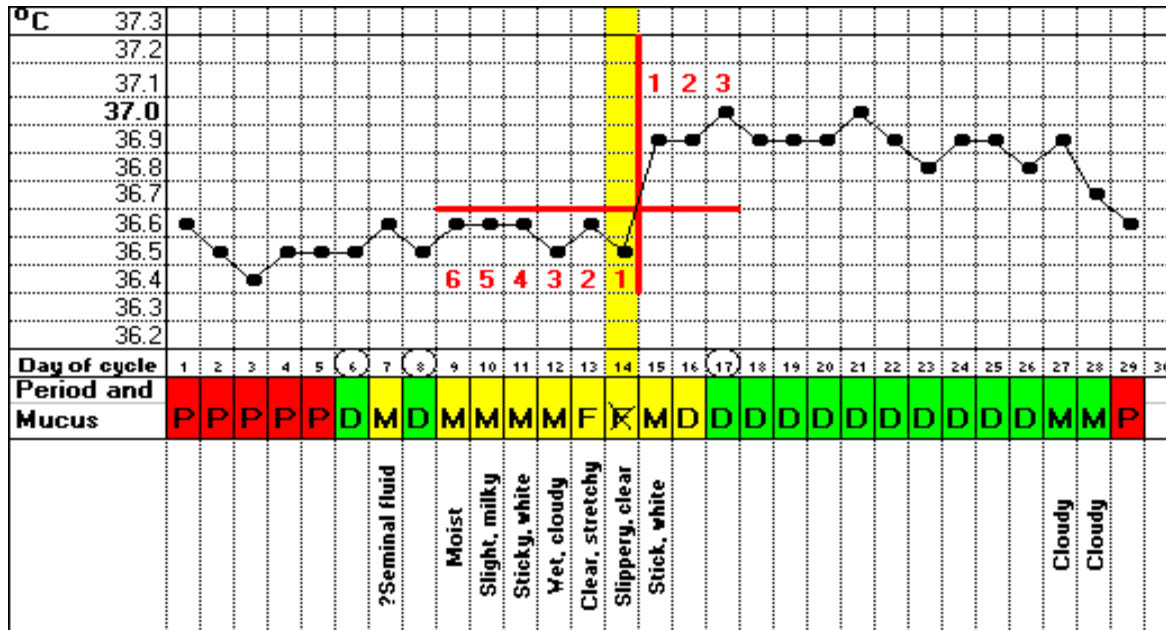
Sticky

Creamy

Watery

Slippery
Stretchy

Example of Cervical Mucus Chart:



This is a 28 day cycle with a five day period. The woman feels dry from days 6 to 8. The first mucus is recognized on Day 9 as a moist sensation and continues to become slight, milky, sticky, white, wet and cloudy from days 10 to 12. The mucus then becomes clear, stretchy on day 13. **Peak day is Day 14 (the last F day) with very slippery, stretchy, and clear mucus.** Ovulation occurs on the Peak day. **The temperature shift is observed on day 15.** The mucus then changes suddenly to stick and white on day 15 after the peak day. The woman feels dry from day 16 to 26. The mucus on days 27 and 28 is related to hormonal fluctuations prior to the next period. Any mucus observed during the post-ovulatory infertile phase can be disregarded.

The woman feels seminal fluid on day 7 after intercourse on day 6.

The couple is using Fertility Awareness to avoid pregnancy. They had intercourse on alternate dry evenings 6 and 8 and then **abstained from the onset of the mucus symptom (day 9) until the post-ovulatory infertile phase which was confirmed by the 3rd high temperature** on day 17 past peak day.

The rest of the cycle was then available for unrestricted intercourse from days 18 to day 28.

6. SYMPTO-THERMAL METHODS: *The most effective and reliable*

The symptom-thermal method is the term used when women monitor their basal body temperature (waking temperature), cervical mucus signs and changes in the cervix, personal cycle history and secondary fertile signs. Secondary (additional) fertility signs include lower abdominal pain, low back pain, spotting during the peak day. Interpret changes in the cervix is not easy and not practical so it will not be addressed here.

The first pre-ovulatory phase which starts on the first day of menstruation until the last pre-ovulatory dry day (unsafe). The second phase from the beginning of wet day with mucus until the fourth day past the peak mucus is the fertile period where the likelihood of conception is very high and possible. ***The third phase is the infertile time (safe) just after ovulation.***

During the first half of a woman's period, the temperature is low indicating low fertility. As fertility increases, so does the basal body temperature. Highest temperatures begin one or two days after ovulation and according to this method, it's ***safe to resume intercourse 3 days after the temperature rise.***

The sympto-thermal method also involves cervical mucus monitoring, which requires a woman to examine her mucus with her fingers. The more mucus there is and the stretchier indicates higher fertility. It becomes dry and scant during the infertile period which makes ***intercourse allowable 4 days after maximal cervical mucus is detected and until next menstruation.***

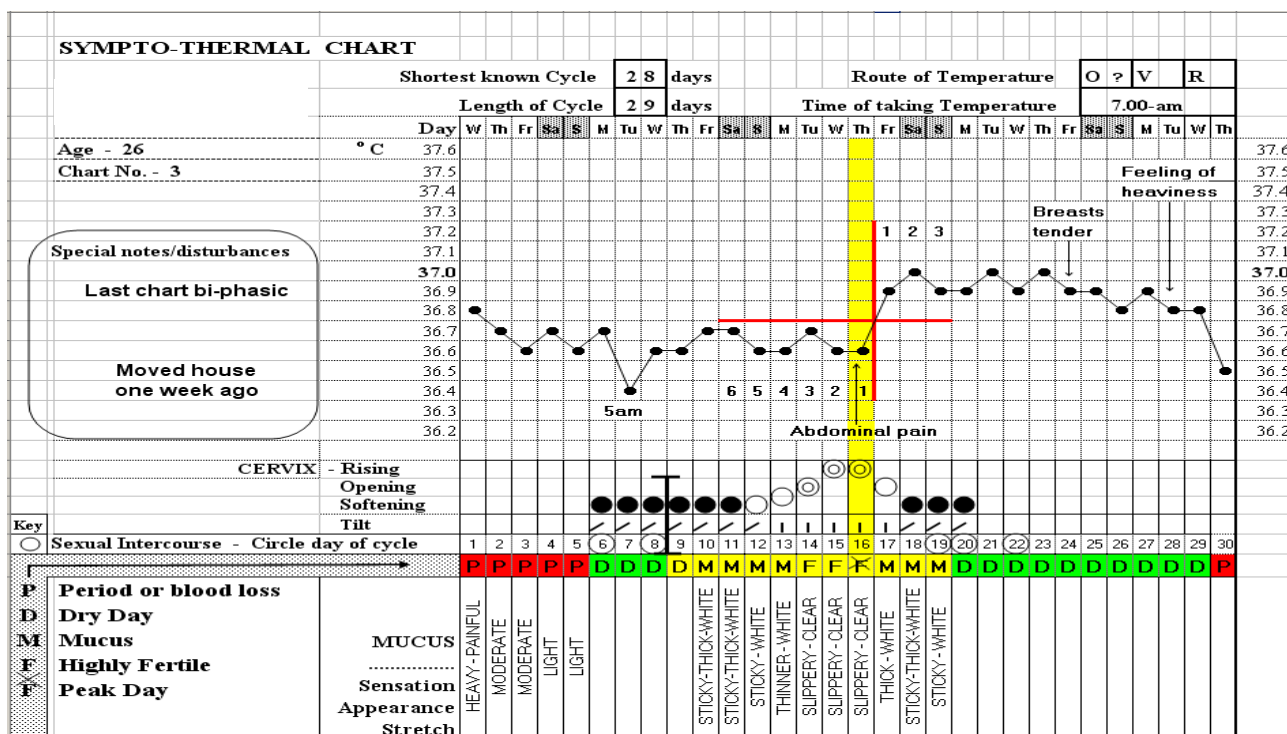
Effectiveness:

This method works well with women who are dedicated to following the rules and keeping track of their body signs, with some studies indicating at least 95% level of effectiveness. But in order to achieve this effectiveness, abstinence must be complete during the fertile phase. If a woman does not follow the method strictly, the couple risks intercourse during the fertile period, and so the failure rate of this type of birth control can be as high as 25%.

The symptom-thermal method requires high levels of discipline and the ability and patience to continue systematic charting for all the years a couple wishes not to have children. It has all advantages of cervical mucus plus BBT method combined.

Advantages and Disadvantages of Cervical Mucus Methods:

- Proven to be one of the most effective symptoms, more accurate than the cervical mucus
- One of the best indicators of ovulation prior to its occurrence by observing cervical mucus changes plus confirming ovulation after the temperature shift.
- Identifies the most fertile period to avoid intercourse or get pregnancy.
- Can suggest when to begin taking LH **ovulation test** (quick and easy, can buy the kit over-the-counter) as signs of fertility develop to help determine the ovulation more accurate.
- Requires a couple of cycles to get familiar with the typical variation in characteristics of cervical mucus. Semen may mask observations. Data is qualitative and requires interpretation



This is a 29 day cycle with a 5 day period (P) followed by Dry days (D) from days 6 to 9. The first mucus (M) is recognized on Day 10 as a moist sensation. It is sticky, thick, cloudy, and white on days 10 to 12. It then becomes thinner on day 13 and **slippery, clear on days 14 to 16, meaning very high fertile (F) when ovulation occurs on day 16. Peak day is Day 16 (the last day the mucus is very slippery, clear, stretchy, and profuse** which is marked with a cross through the F).

The temperature shift is observed on day 17. The secondary sign is abdominal pain on the peak day.

After peak day, there is an abrupt change to sticky mucus (M) on days 17 to 19 then the woman feels dryness from days 20 to 29. The next menstruation is on day 30 which starts new cycle.

During the pre-ovulatory phase, the temperature is low, from 36.6° to 36.7° Celsius. **On day 17, (1 day after ovulation which is day 16) the temperature rises suddenly to 36.9° C and maintains elevated above 36.8° C (36.8°-37° C) from day 17 to 29 in the last part of the cycle.** The temperature subsides on day 30 when having the next menstruation.

The couple is using Fertility Awareness to avoid pregnancy. They had intercourse on alternate dry evenings 6 and 8 and then **abstained from the onset of the mucus symptom on day 10 until the post-ovulatory infertile phase on day 19** which was confirmed by **the 3rd high temperature past peak day** (on day 16).

The rest of the cycle was then available for unrestricted intercourse from days 20 to 29.

7. CONCLUSION

No single Natural Family Planning works perfectly to avoid unintended pregnancy. However, combining different methods in one called the symptom-thermal Method is much more reliable with effective rate of more than 95 % with perfect use. The combination that appears to be the most accurate is Basal Body Temperature, Cervical Mucus and the Calendar Methods. The couple may use **ovulation test** (quick and easy, can buy the kit over-the-counter) as signs of fertility develop to help determine the ovulation more accurate.

Natural Family Planning works well with women who are dedicated to following the rules and keeping track of their body signs, with some studies indicating a 98% level of effectiveness. But in order to achieve this effectiveness, abstinence must be complete during the fertile phase.

When married couples have discerned that there is a need to space or limit children, the means to do so must be truthful to love, the integrity of the sexual act and to the gift of fertility. Although this may be difficult and at times seem impossible, God does not ask the impossible and will be with the couple in difficult times in a special way.

The practice of NFP and periodic abstinence, far from harming married love actually confers upon married life a higher human value. The many positive benefits of being chaste within marriage and practicing NFP include better understanding of your fertility, increased communication, self-mastery of one's sexual desires, a greater generosity towards new human life, and an openness to God's will. If the couple has tried their best but cannot avoid pregnancy, accept that fertility as a gift. Children are valued and welcomed. Respect God's design for married love!

Summarized and edited by Dr. Nguyen Thanh Le, MD

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