

**SAINT PETER'S UNIVERSITY HOSPITAL FERTILITY AWARENESS
PROGRAM, NEW BRUNSWICK, NJ**

NATURAL FAMILY PLANNING AND PREMENOPAUSE

“Woman is rare among creatures in that she outlives her reproductive capacity.” (1)

Introduction

Menopause (also known as “the change of life” or “climacteric”) is the natural cessation of the procreative function in women. When a woman reaches the age of 45 to 55 years, the ovaries no longer respond to the stimulation of Follicle Stimulating Hormone (FSH) secreted by the pituitary gland in the brain in order to ripen eggs and produce hormones. Menstruation then stops completely (2). Menopause is not due to the exhaustion of the supply of eggs in the ovary, but rather to the cessation of the ovary’s functioning, probably due to age (3).

Premenopause, the time of declining fertility leading up to menopause may be a brief or long period of time, extending for many years. This paper covers the physical and emotional changes of premenopause and the use of Natural Family Planning guidelines during this time. It is hoped that this information about premenopause will alleviate some of the anxiety and confusion experienced by couples going through this time of life, and that it will reduce some of the mystery associated with the experience of premenopause and menopause.

I. What Happens During Premenopause?

A. Physical indicators of premenopause (4):

Changes in Menstruation: Menstrual periods may shorten or lengthen to ten or more days. The amount of bleeding may decrease or become profuse, with blood clots present. Eventually, or suddenly, menstrual periods will stop entirely.

Cycles become Irregular: The length of time between one menstrual period and the next may vary from a short amount of time (as short as 17 days) to very long periods of time (as long as 6 months or more). Long cycles may include several anovulatory episodes. Slight bleeding may occur between menstruations.

Changes in Cervical Mucus Pattern: Cervical mucus observed at the vaginal opening may be scanty, minimal, cloudy, yellowish and grainy and it may be continuous without developing an ovulatory pattern. Fertile mucus episodes become less frequent. An overall pattern of dryness may prevail.

Other Symptoms of Ovulation: Breast tenderness may increase noticeably or disappear. Other symptoms of ovulation such as abdominal pain or backache may intensify or go away completely.

Hot Flashes: This new “infertility” sign will be discussed in greater detail later in this paper. In premenopause, some women experience hot flashes in a more or less regular pattern, often coinciding with dry days.

Other Physical Changes: An assortment of physical problems can be associated with premenopause including major fatigue, decrease in vision, insomnia, osteoporosis, weight gain, and anemia due to blood loss. On the positive side, many women experience an increase in libido during this time in part due to the relatively higher level of the male androgen hormone, testosterone (5).

B. Emotional Changes:

Women’s emotional response to menopause can vary dramatically. “For many women, menopause is very welcome, especially for those who have suffered severe menstrual cramps or have feared pregnancy late in life,” says John W. Rowe, M.D., a Harvard Medical Center Geriatrician (6). If a woman has been emotionally stable prior to menopause, she will usually have no difficulty in accepting this time in her life (7).

On the other hand, the absence of menstrual cycles makes some women feel less feminine, even if they have no further plans for pregnancy. Moodiness, fatigue, insomnia and depression can result from hormonal changes. The anxiety often associated with menopause may be heightened by other transitions that usually occur around the same time, such as children leaving home and parents becoming aged and needing assistance (8). Some women experience feelings of worthlessness, lack of enthusiasm for life, withdrawal, introspection, irritability and isolation. Family members and spouses may make matters worse for her by avoiding her. Spouses and family members need to recognize her need to discuss her problems and anxieties in an atmosphere of love and understanding (9). She needs to look forward to new opportunities for a creative, fulfilling lifestyle, with major family responsibilities over, worries about an unexpected pregnancy eliminated and more time to develop her own interests (10).

Sometimes, problems between husbands and wives are aggravated by the irregularity of cycles as menopause approaches. They believe they need to abstain from sexual intercourse for months or even years to avoid pregnancy. This results in severe stress on the relationship, resulting in feelings of rejection.

Sometimes contraception is used for the first time or sterilization is contemplated, all at a time when the woman is infertile most of the time and soon will be totally infertile (11). Communication, understanding the changes that are taking place and daily observation and charting of fertility/infertility signs can do wonders to improve the situation.

C. How Fertile are we in Premenopause?

Some women experience no changes in their menstrual cycles prior to menopause, but most will notice a trend toward irregular cycles at around 20 cycles before menopause (12). Fertility is greatly reduced during this time due to the occurrence of anovulatory cycles, which make conception impossible any time during the cycle, and due to the shortening of the time between ovulation and the beginning of the next menses (luteal phase) (13).

This time may be shorter than the usual two weeks, and as a result, a possible pregnancy may be shed by menstruation before implantation can take place (14). Due to lower hormone levels, the corpus luteum may last for only eight to ten days or less. Once it stops producing progesterone, the lining of the uterus is shed in menstruation. The brevity of the corpus luteum or its insufficiency may also cause an increase in menstrual bleeding or additional bleeding (15).

Anovulatory cycles, in which there is a delay in the maturing process of the egg in the follicle due to hormonal deficiency, results in delayed ovulation. There is no temperature rise on the chart (16). A cycle without ovulation continues until an ovulation can be confirmed. Therefore, some cycles in premenopause could last up to six months or more.

It is impossible to tell when your fertility might end, but your pattern may be similar to that of your mother or sisters. The time of menopause is not directly related to when your menstrual periods first began or the number of children you have (17). Your state of fertility can be evaluated using the following guidelines (18):

1. Age: If you are 45 years or older, you are statistically much less likely to become pregnant. Studies show that between the ages of 45 and 50 years, only one woman in 500 is able to become pregnant; and at age 49, the figure drops to about one in 10,000.
2. Number of children and miscarriages (an indicator of overall fertility).
3. Age of youngest child (indicator of when you were last proven to be fertile).
4. Previous fertility control methods used (women who use the IUD tend to become infertile earlier).
5. Recent lengths of menstrual cycles compared to those you experienced 5-10 years ago.
6. Approximate date of onset of irregularity of cycles.

7. Changes in menstrual bleeding:
 - Reduced or prolonged blood loss
 - Presence of blood clots
 - Heavy bleeding (leading to anemia and fatigue)
 - Painful periods changing over to painless
8. Bleeding between periods, which may now sometimes coincide with ovulation? This is more common in long premenopausal cycles.
9. Changes in breast pain or tenderness. Breast tenderness may become very severe, disturbing sleep and lasting 2-3 weeks; or breast soreness, lumpiness or fullness which usually occurred a few days before menstruation may no longer occur.
10. Temperature records show no rise; no ovulation in certain cycles.
11. Hot flashes.
12. Changes in other familiar signs of ovulation such as the feeling of fullness around the vagina or abdominal pain associated with ovulation may disappear.
13. Recent weight gain. Estrogen is made through a process which uses body fat. Less estrogen production may cause a weight gain. Weight gain can also occur due to emotional causes such as depression or lethargy.
14. Infertile mucus and dry days increasingly appear. Peak Day is not as clear as it was.

These are all signs of declining fertility. You will not be able to consider yourself through menopause until you have experienced at least six months of no menstrual periods or ovulations. According to Vollman, the following statistics apply:

- Once six months of amenorrhea (no periods) are past, there is a 22% chance of having another menstrual period.
- This decreases to a 9% chance at eight months of amenorrhea, a 3% chance at ten months of amenorrhea and almost no chance at twelve months or more of amenorrhea (20).

II. Natural Family Planning Guidelines During Premenopause:

A. Charting:

Charting, whether by Ovulation Method or Sympto-Thermal Method will help you tremendously during premenopause. Unlike previous charting, however, the emphasis is not so much on identifying fertility signs as on determining your infertility signs. Each cycle should be charted carefully, since any combination of cycle lengths can be expected (21). When the ovary does respond to the increasing stimulation of FSH sent by the pituitary gland, the ovum may be released earlier in the cycle than is customary (22).

In charting the mucus, be aware that the most typical type of mucus produced during premenopause is sparse and unchanging. This mucus appears crumbly, cloudy, flaky, clotty, claggy, or even watery and continuous, without ever developing the lubricative qualities of fertile type mucus. Some women are unable to observe any changing, wet, lubricative, raw egg-white, stretchy cervical mucus. Ovulation and menstruation may continue. However, production of the characteristic infertile pattern of mucus or a pattern of dry days signals infertility, since fertile type mucus is required for the sperm cells to retain their fertilizing capacity and reach the egg (23).

B. Using the Chart to Determine Fertility:

To begin charting during premenopause, start keeping a daily record of at least your mucus discharge for a month following these rules (24):

1. Abstain from sexual intercourse and genital contact during this learning time.
2. Begin charting immediately; it is not necessary to wait for a menstrual period to begin your chart.
3. Learn to recognize your own characteristic infertile pattern of mucus (usually thick, opaque, tacky, non-stretchy).
4. Be alert for any changes in your mucus which signal possible fertility (towards creamy, more lubricative, stretchy, wet-feeling).
5. After a month, continue to chart daily. You may apply the dry days rule during dry days or days of your characteristic infertile-type mucus. Dry days rule: intercourse on the evening of a dry day; abstain from intercourse the next day and evening; intercourse in the evening of the following day if it is dry).
6. Unless you begin charting temperature, during menstruation (or any bleeding

Episode) avoid intercourse and all genital contact in case the flow obscures the mucus which may occur early in very short cycles.

7. If you do not recognize a Peak Day (the last day of the most fertile-type mucus) or chart a sustained temperature rise prior to a bleeding episode, avoid intercourse for three days following a bleeding episode. You probably experienced an anovulatory bleeding episode during which you could ovulate (25). In an anovulatory bleeding episode the endometrium over a span of time with no ovulation thickens and ages. The superficial layer of the endometrium no longer has enough blood coming in and it breaks down and flows through the vagina much like menstruation (26).
8. Avoid intercourse on all days of spotty bleeding or mucus that differs in any way from your characteristic infertile pattern of mucus. Both could be an indication of impending ovulation. Wait for intercourse until the evening of the fourth day past any appearance of this bleeding or mucus. Any return of possible fertility will be signaled to you by the appearance of fertile-type mucus.
9. After an identified Peak Day, wait until the evening of the fourth day past Peak to resume intercourse. Three consecutive high temperature readings can also be used to confirm ovulation.
10. Temperature taking can offer additional security during premenopause. With a daily Basal Body Temperature reading you can be confident that ovulation has not occurred (no sustained temperature rise for several days will be noted) even if you have not menstruated in a long time. You will know that pregnancy has not been achieved (unless 21 or more consecutive days of high temperature readings appear).
11. If you have used the six day rule or the 21 day rule in the past, disregard them now. You may assume infertility until day 3 or 4 only during a true menstruation (one that follows a sustained temperature rise) due to the frequent occurrence of short cycles in premenopause. Begin using mucus and cervix observations as early as possible (29).
12. If you use the cervix observation (checking the position and openness of the cervix with your finger), pay special attention during the Phase I preovulatory time. When the cervix is low, firm and closed and the mucus is dry or the basic infertile pattern, infertility can be assumed (30).
13. If you experience a patch of mucus (any type) and/or opening of the cervix on a number of days which is not followed by any sort of rising temperatures, do not consider yourselves back into Phase I preovulatory infertility until the evening of the fourth day past the mucus patch (31).

14. For extra awareness during a pattern of continuous, less fertile-type mucus (your characteristic infertile pattern) abstain from intercourse for one or two cycles to make sure you can detect the change to the more fertile type mucus at least five days prior to Peak Day. If your own experience shows you are able to detect the onset of more-fertile type mucus or the opening/elevation of the cervix at least five days prior to Peak Day, then you run an extremely small chance of a surprise pregnancy during the time of your characteristic infertile pattern of mucus, as long as you use alternate evenings for intercourse (to make sure that leftover seminal fluid does not obscure your mucus readings) (32).

C. Other Charting Notes:

1. If you experience long and unexplained bleeding episodes, be sure to contact your physician (33). Natural progesterone support may help.
2. A well-balanced, nutritious diet helps keep your energy level up and symptoms reduced. Flax oil capsules may help and foods containing soy products (natural estrogens) may help relieve symptoms (34).
3. Sometimes it may be difficult to determine Day 1 of the cycle because spotting begins while the Basal Temperatures are still high. You may choose to count the first day of your cycle as the first day of temperature drop, rather than the first day of bleeding, as long as you do this consistently (35).
4. Many couples are afraid of pregnancy during premenopause. This fear is related to bringing another baby into the “completed” family and raising him or her at a later age than you would prefer. Also there is a fear of the possibility of birth defects. Note: there is still more than a 98% chance of having a “normal” baby (36). Many couples have found themselves rejuvenated by the appearance of a new baby in their lives at this time.
5. Continue charting for another year after completing six months of amenorrhea. Abstain from sexual intercourse during any patch of fertile-type mucus and for three days afterwards. After menopause, the temperature pattern will continue to show variations, sometimes with several days of highs and lows (37).
5. Chart hot flashes. These occur because the heat regulator in the brain no longer has the stimulus of the cycling estrogen to cool it down. Hot flashes are normal and not a sign of ill health. They will stop at a certain point in time when the woman’s body adjusts to the lower estrogen level (38).

When the ovaries stop producing estrogen in menopause, the adrenal glands compensate by producing more androgens, which maintain the woman’s energy level. During a woman’s reproductive life, these androgens are

converted in fat and muscle to estrogen and account for a quarter of the total estrogen produced in the body. After the ovaries shut down their function of producing three quarters of the estrogen during the reproductive years in a woman's life, the adrenal gland continues to produce the same amount of estrogen it always has. Since there is no longer a need for the high level of estrogen needed to assist fertility and prepare the endometrium for potential implantation, the remaining estrogen from the adrenal gland can supply the amount necessary in a normally healthy woman's life (39).

However, this lower level of estrogen does result in a temporary period of hot flashes which occur suddenly and disappear within minutes. Hot flashes affect the upper portion of the body and cause the skin to redden, get heated and sweat. This cools the body down. A number of hot flashes may occur at one time. They may continue to appear for a period of weeks, disappear for a few weeks and return (40).

NOTE: Any day you experience hot flashes, your estrogen levels are too low to bring on ovulation. This day may be considered infertile, provided that you are not experiencing any fertile-type mucus (41).

III. Other Concerns in Premenopause

Hormone replacement is the supplementation of natural hormones with synthetic estrogen usually in combination with progesterone. The decline in the output of natural estrogen during premenopause and menopause can be accompanied by emotional disturbances, increased frequency and discomfort of urination, vaginal infections, severe hot flashes, itchiness, vaginal dryness leading to painful intercourse, and bone fragility (osteoporosis) (42). Sometimes Hormone Replacement Therapy (HRT) is recommended to alleviate these symptoms. Dr. Evelyn Billings states:

“Expert assessment, common sense and sympathetic management of each individual woman is necessary when hormone therapy is being considered. About 25% of women seek medical help at this time, but the proportion has increased due to public advertising in recent years, which has persuaded many women that they need HRT for what is falsely represented as an abnormality (44).”

With HRT there are potentially serious side effects. HRT disturbs the mucus pattern, causing the cervix to produce a continuous discharge that resembles fertile-type mucus or spotting in some women. HRT causes a “cycle” the same as being on the pill.

Alternatives to HRT include (45):

- Spouses should take time in lovemaking to ensure vaginal dryness is decreased by the woman's arousal fluids. A lubricant could be used, after consultation with your physician.
- Sympathetic counseling can help with problems that have nothing to do with menopause but which, by causing anxiety and distress, may worsen menopausal symptoms.
- Spouses must increase efforts at communication. Husbands can benefit greatly from an explanation of menopause.
- The woman in premenopause should rest each day and pay attention to her general health and diet. Reduce or eliminate: salt, caffeine, alcohol, cigarette smoking.
- Regular exercise, including bone jarring activity such as walking, running, aerobics, helps prevent osteoporosis as well as enhancing self image and mood.
- For unusually severe symptoms, a natural estrogen, estrone sulphate, could be tried for a short time. It does not affect mucus production and bleeding is rare. The use of natural progesterone is sometimes helpful in controlling severe bleeding and clotting. This treatment should not be prolonged (46).

IV. Use of Other Birth Control Methods:

It is a possibility that couples in premenopause will consider other birth control methods due to fear of pregnancy, concerns about abstinence or physician advice. The following statements address birth control in premenopause (47):

- There is well-established evidence that the hormones in the Pill can cause serious disorders among women approaching menopause. Risk of heart and blood vessel disease increases markedly with age among Pill users.
- Taking the Pill or forms of HRT will make you unaware of your fertility. You will not know when you no longer need the Pill or HRT unless you stop taking it and chart your cycles.
- Medical professionals may not prescribe IUD's to women in premenopause due to problems with abnormal uterine bleeding and potential damage to the uterus.
- Sterilization via tubal ligation results at times in prolonged heavy bleeding. This occurs in 8-25% of cases. A much higher rate of ectopic pregnancy is associated with tubal ligation. There is some evidence of a feedback mechanism between the uterus and the ovaries via the fallopian tubes. When the tubes are sealed off in sterilization, this feedback mechanism stops and irregular cycles, frequent bleeding episodes and painful periods can result.

- Hysterectomy can be lifesaving in certain situations, such as when cancer is present. However, it is a serious operation and should not be undertaken without good reasons.
- Barriers and spermicides may irritate the woman's vagina, which is easily irritated due to thinning of the vaginal walls with age and vaginal dryness, and this can make intercourse painful.
- Rhythm and temperature only methods are unsatisfactory due to lengthy periods of no ovulation. Couples may wait needlessly for months or even years for a sustained temperature rise.

Conclusion:

Premenopause is a time of transition for a couple. Good communication and mutual concern are essential for their relationship at this time. Although the woman's fertility is declining and will end, concerns about pregnancy at this time of life are understandably strong. The guidelines given in this paper are intended to provide some understanding of NFP and charting during this time.

The basic rules of NFP apply in premenopause as in any other time: fertility is signaled by the presence of fertile-type mucus; ovulation is confirmed by a change from Peak mucus and three or four high temperature readings and a closing down of the cervix. During long periods of dry days or unchanging thick, sticky mucus (the characteristic infertile pattern), the dry days rule applies.

Please contact an NFP provider if you need additional guidance or questions that are not answered in this paper. An NFP teacher will be happy to review the NFP guidelines with you and discuss your charts with you.

In Central New Jersey, please contact the Family Life Office of the Diocese of Metuchen (732) 562-1990 ext. 1623 or the Natural Family Planning Information Line at Saint Peter's University Hospital (800) 334-0699 for further information and assistance.

Footnotes:

1. E. Billings, A. Westmore, The Billings Method, Random House, New York, 1980, p. 116.
2. SERENA, Canada, "Planning Your Family the S-T Way", pgs. 33-36.
3. P. Thyma, The Double Check Method of Natural Family Planning; The Liturgical Press, Collegeville, MN; 1978 pg. 45.
4. SERENA, Canada, op.cit.
5. "Women's Health Advisor", 1988.
6. Ibid.
7. E. Billings, op. cit. p. 117.
8. "Women's Health Advisor."
9. E. Billings, op. cit.
10. Ibid. pg. 118.
11. Ibid. pg. 116.
12. J. Kippley, S. Kippley, The Art of Natural Family Planning; The Couple to Couple League International, Inc.; Cincinnati, Ohio; 1984; pg. 156.
13. N. Aguilar, No Pill, No Risk Birth Control; Rawson, Wade Publishers, Inc. New York; pgs. 201-204.
14. P. Thyma, op. cit. Pgs. 45-46.
15. Ibid.
16. SERENA, Canada, op. cit. pg. 33.

17. E. Billings, op. cit. pg. 120.
18. Ibid. pgs. 120-122.
19. Ibid. pg. 119.
20. J. Kippley, op. cit. pg. 159.
21. P. Thyra, op. cit., pgs 45-46.
22. SERENA, Canada, op. cit.; pg. 52.
23. E. Billings, op. cit., pg. 120.
24. Ibid., pg. 123.
25. Ibid., pg. 123.
26. SERENA, Canada, op. cit., pg. 33.
27. E. Billings, op. cit., pg. 124.
28. N. Aguilar, op. cit., pgs. 201-204.
29. J. Kippley, op. cit., pg. 156.
30. Ibid.
31. Ibid.
32. Ibid.
33. Ibid.
34. Ibid.
35. Ibid.
36. Ibid., pg. 158.
37. Ibid., pg. 160.
38. NFP Advocate: "Acceptance is the Key"; Twin Cities NFP Center, Inc. Minneapolis, MN 1987.
39. Ibid.
40. N. Aguilar, op. cit., pgs. 201-204.
41. Ibid.
42. E. Billings, op. cit., pg. 127.
43. Ibid.
44. Ibid. pg. 128.
45. Ibid.
46. Ibid., pg. 130.
47. Ibid., pgs. 124-125.

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- _____. "Women's Health Advisor", 1988.