

18TH
REVISED
EDITION



CONTRACEPTIVE TECHNOLOGY

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- **New Methods Including the Patch, Ring and LNG Intrauterine System**
- **Menopause Management Today**
- **Contraceptive Failure Rates Updated**

Fertility Awareness-Based Methods

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- Fertility awareness helps couples understand how to avoid pregnancy or how to become pregnant.
 - Regardless of whether they use family planning, or which method they use, every woman and man will find value in learning fertility awareness.
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Fertility Awareness-Based (FAB) methods of family planning depend on identifying the “fertile window,” or the days each menstrual cycle when intercourse is most likely to result in a pregnancy. Some FAB methods may simply involve a woman’s understanding which days of her cycle she is most likely to be fertile and keeping track of her cycle days. To use other FAB methods, she observes, records, and interprets her body’s fertility signs.

To avoid pregnancy, couples can either use a barrier method or not have intercourse during the fertile time. If couples use barrier methods, they are using fertility awareness-combined methods (FACM). If they abstain, they are using natural family planning (NFP).

M ECHANISM OF ACTION

FAB methods of family planning use one or more indicators to identify the beginning and end of the fertile time during the menstrual cycle. They are effective when they are used correctly. However, they are not effective when used incorrectly because, with incorrect use, unprotected intercourse takes place when the woman is potentially fertile.

In most women, ovulation usually occurs near the middle of the cycle.¹ The fertile window of the menstrual cycle lasts for only about 6 days: the 5 days preceding ovulation and the day of ovulation (this is related to the lifespan of the gametes).^{2,3} In cycles that range between 26 and 32 days long (approximately 80% of cycles), the fertile window is highly likely to fall within cycle days 8 to 19.⁴

Two FAB methods, the Standard Days Method™ (SDM™) and the Calendar Rhythm Method (CRM), involve counting the days in the menstrual cycle. SDM requires only that the woman know which day of her menstrual cycle she is on and that she consider herself potentially fertile on days 8 through 19. CRM not only involves counting cycle days, but it also requires that the woman have a record of the length of her last several menstrual cycles, identify the longest and shortest of these cycles, and perform a mathematical calculation to identify the probable days of fertility during the current cycle. While survey results show that, in many countries, a significant number of couples state that they are using the CRM,⁵ most have little understanding of how to use it and are simply abstaining from intercourse on a few days of the woman's cycle when they believe (often erroneously) that she is most likely to become pregnant. It appears that "calendar rhythm" has become a generic term for occasional abstinence.

Other FAB methods, such as the Ovulation Method or the Symptothermal Method, involve actual observation of fertile signs such as changes in characteristics of cervical secretions, or changes in basal body temperature (BBT). Changes in these signs are caused by fluctuations in circulating hormone levels during the cycle. Women who use these methods identify the start of the fertile time by observing cervical secretions. To identify the end of the fertile time, women can observe their cervical secretions as well as monitor the change in their BBT.

EFFECTIVENESS

Successful use of FAB methods depends on (1) the accuracy of the method in identifying the woman's actual fertile window, (2) a woman's/couple's ability to correctly identify the fertile time, and (3) their ability to follow the instructions of the method they are using—that is, to use a barrier method or avoid intercourse on the days the method identifies as fertile.

Among perfect users of FAB methods (i.e., those who correctly and consistently use a barrier method or avoid intercourse during the fertile time), the percentage of women experiencing an unintended pregnancy during the first year of use ranges from 2% to 5%, depending on the method. In typical use (i.e., correct and consistent use during some cycles, but incorrect or inconsistent use during others), pregnancy rates are higher (see Table 15-1). (See Chapter 31 on Contraceptive Efficacy.)

Table 15-1 First-year probability of pregnancy* for women using no method, a FAB method, and barrier methods

Method	% of Women Experiencing an Unintended Pregnancy Within the First Year of Use	
	Typical Use	Perfect Use
No Method	85	85
Periodic Abstinence	25	
Standard Days Method	12	5
Ovulation Method	22	3
Symptothermal	13–20	2
Condom (male)	15	2
Spermicides	29	18

* See Table 9-2 for first-year probability pregnancy rates for all methods.

Ovulation method. The first-year probability of pregnancy for methods based on using only cervical secretions to identify the beginning and end of the fertile time is about 3% among perfect users and 22% among typical users.^{6,7} Most efficacy studies of the OM do not enroll women in the study until they have completed 3 cycles of use, and most use providers with extensive training and experience with the method.

Symptothermal method. The first-year probability of pregnancy among couples who use two or more fertility indicators (usually cervical secretions and BBT, but others such as cervix position or a calendar calculation may also be used as a “double check” to identify the start and end of the fertile time) are about 2% to 3% among perfect users and as high as 13% to 20% among typical users.⁸ As with the OM studies, most efficacy studies of the Symptothermal Method (STM) include women with at least three cycles of use and involve experienced providers.

Calendar rhythm method. Estimates of pregnancy rates for the Calendar Rhythm Method (CRM) vary widely, partially because the estimates come from flawed studies. One relatively recent comparative study reported a first-year pregnancy rate of 5% with correct use.⁹ The probability of pregnancy during the first year of typical use of the CRM is estimated to be about 13%,¹⁰ but no well-designed prospective studies have been conducted.

Standard Days Method. The first-year probability of pregnancy for women using the SDM is about 5% if the method is used correctly. During typical use, the probability of pregnancy is 12%.¹¹ In contrast to most efficacy studies of other FAB methods, the efficacy study of the SDM on which these percentages are based included women from their first cycle of method use. Providers who taught the women how to use the SDM received 2 to 3 days training in the method and had no prior experience with the SDM.

COST

The cost of FAB methods depends on the materials and supplies used and the amount of time required to provide the method. Since no technologically sophisticated materials are required and tools for monitoring a woman's menstrual cycles entail minimal expense, FAB methods are relatively low cost. Some programs offer training without any charge to the client, while others charge a nominal fee. The amount of time required to learn how to use FAB methods depends on the method and on the woman. The SDM requires a single teaching session, usually lasting less than a half hour. Methods that rely on observation of fertility signs require significantly more time. A woman who is younger and normally cycling generally has fertility signs that are easier to interpret than does a woman who has just discontinued taking oral contraceptives, is breastfeeding, or is approaching menopause. The cost would vary accordingly.

If a couple uses a barrier method during the fertile time, there are additional costs for obtaining and resupplying the barrier and, as appropriate, spermicides.

ADVANTAGES AND INDICATIONS

Fertility awareness is important for all women and men, regardless of which family planning method they use or whether they choose to use family planning at all. Fertility awareness increases the users' knowledge of their reproductive potential and enhances self-reliance. Some couples like the active involvement of the male partner. Fertility awareness information can be used for a number of purposes:

To avoid pregnancy. For maximum effectiveness, couples should abstain from intercourse or use a barrier method during the entire fertile time.

To conceive. Couples have intercourse on days the woman is potentially fertile. Depending on the method used, these may include days 8 to 19 of the cycle, or the days she observes cervical secretions. Conception is most likely to occur within 1 to 2 days of ovulation.²

To detect pregnancy. A postovulatory temperature rise (see the section on Basal Body Temperature Charting) sustained for 18 or more days is an excellent early indicator that pregnancy is underway.

To detect impaired fertility. Charting fertility signs costs relatively little and can aid in diagnosing and treating fertility problems due to infrequent or absent ovulation. Women who do not ovulate tend to have a meandering BBT pattern throughout the cycle, rather than the typical pattern (lower in the first part and higher in the second).

To detect a need for medical attention. Changes in cervical secretions, abdominal pain, and other signs may indicate the need for medical attention. (See Chapter 8 on Reproductive Tract Infections.)

DISADVANTAGES AND CAUTIONS

FAB methods produce no side effects. Like other methods except some barrier methods, however, they offer no protection against sexually transmitted infections (STIs), including infection with the human immunodeficiency virus (HIV). Also, lack of the male partner's cooperation will be a distinct obstacle for women who wish to practice abstinence or use an alternative method during the fertile time. Certain conditions may make FAB more difficult to use and require more extensive counseling and follow-up:

- Recent childbirth
- Current breastfeeding
- Recent menarche
- Recent discontinuation of hormonal contraceptive methods
- Approaching menopause

FAB methods are not recommended for women with the following difficulties:

- Irregular cycles (Standard Days Method)
- Inability to interpret their fertility signs correctly (Ovulation Method, Symptothermal Method)
- Persistent reproductive tract infections that affect the signs of fertility (Ovulation Method, Symptothermal Method)

SPECIAL ISSUES

Safety

Because unintended pregnancies among couples who use FAB methods usually result from having intercourse at the beginning or end of the fertile time, concerns have been raised about the risk of birth defects or poor pregnancy outcomes due to aged ovum or sperm. A prospective study showed no significant differences in rates of spontaneous abortion, low birthweight, or preterm birth among women who had an unintended pregnancy while using a FAB method compared with women who had intended pregnancies.¹² However, women with a history of spontaneous abortion had a greater chance of having a spontaneous abortion when conception occurred very early or late in the fertile time (23% versus 10% to 15%). Furthermore, fertilization involving aging gametes is not associated with major birth defects and Down's syndrome.¹³ Reassure your clients that NFP does not pose a threat to the health of mothers and their offspring. However, to reduce their risk of pregnancy loss, counsel women with a history of spontaneous abortion to time intercourse as close as possible to ovulation if they are attempting to conceive.

Sex selection

A study of about 1,000 births showed no association between timing of conception and the sex ratio at birth.¹⁴ These results do not substantiate claims that couples can select the sex of their child by timing intercourse.

PROVIDING FERTILITY AWARENESS-BASED METHODS

To use FAB methods, couples must adjust their sexual behavior according to their fertility intentions. Users of NFP will need to abstain from intercourse for about 10 to 14 days of the woman's menstrual cycle, depending on her cycle length and the method used. Users of FACM will need to use a barrier method on fertile days. Successful use of these methods therefore requires a couple be able to communicate effectively with each other about sexual matters.

The Institute for Reproductive Health at Georgetown University estimates it takes just a few minutes for a woman to learn that she should consider herself fertile on days 8 to 19 of her cycle and to keep track of her cycle days. Counseling may be needed to provide the support necessary to help her use the method correctly. Most couples using other FAB methods need an instructor's help to learn how to observe, record, and interpret the woman's fertility signs and patterns. The National Health Service in Great Britain estimates it takes 4 to 6 hours to teach a woman fertility awareness skills, including charting fertility signs and identifying the fertile time.¹⁵ This estimate includes initial classes and follow-up until the woman can use the method without assistance.

CycleBeads

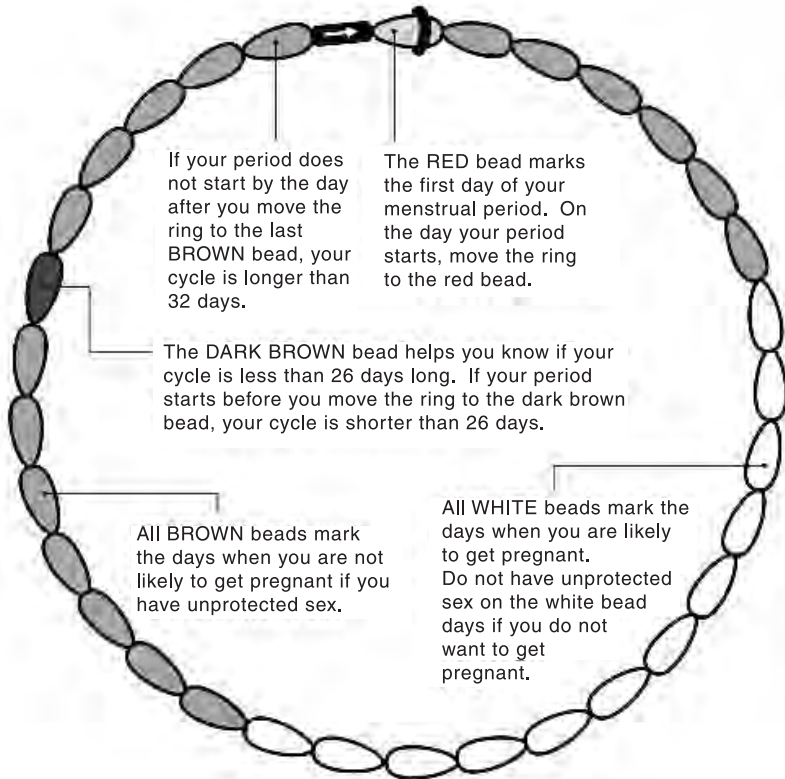


Figure 15-1 CycleBeads for Standard Days method

STANDARD DAYS METHOD

The SDM is most appropriate for women who usually have cycles between 26 and 32 days long. To use the SDM, you will need to count the days of your menstrual cycle, starting with the day your menstrual bleeding begins.

1. Count the first day of your menstrual bleeding as day 1.
2. Continue counting every day.
3. On days 1 to 7, you can have unprotected intercourse.
4. On days 8 to 19, you should use a barrier method or avoid intercourse if you do not want to become pregnant.
5. From day 20 through the end of your cycle, you can have unprotected intercourse.

6. The SDM works best for women who have cycles between 26 and 32 days long. If you have more than one cycle in one year that is shorter than 26 days or longer than 32 days, you should contact your provider to discuss the possibility of using another method.
7. **For contraception.** Have unprotected intercourse only on days 1 to 7 and from day 20 until the end of your cycle. Use a barrier method or avoid intercourse on days 8 to 19.
8. **For conception.** Have unprotected intercourse on days 8-19 of your cycle.

Most women who use the SDM use a specially-designed color-coded string of beads called CycleBeads™ to help them keep track of their cycle days. See Figure 15-1 for an illustration of the CycleBeads and instructions for use.

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