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FAQ-FAMILY PLANNING

Breastfeeding and Fertility

By Kelly Bonyata, BS, IBCLC

How can I use breastfeeding to prevent pregnancy?

The Exclusive Breastfeeding method of birth control is also called the Lactational Amenorrhea Method of birth control, or LAM. Lactational amenorrhea refers to the natural postpartum infertility that occurs when a woman is not menstruating due to breastfeeding. Many mothers receive conflicting information on the subject of breastfeeding and fertility.

Myth #1 – Breastfeeding cannot be relied upon to prevent pregnancy.

Myth #2 – Any amount of breastfeeding will prevent pregnancy, regardless of the frequency of breastfeeding or whether mom's period has returned.

Exclusive breastfeeding has in fact been shown to be an *excellent* form of birth control, *but* there are certain criteria that must be met for breastfeeding to be used effectively.

Exclusive breastfeeding (by itself) is 98-99.5% effective in preventing pregnancy as long as all of the following conditions are met:

1. Your baby is less than six months old
2. Your menstrual periods have not yet returned
3. Baby is breastfeeding on cue (both day & night), and gets nothing but breastmilk or only token amounts of other foods.

Effectiveness of Birth Control Methods Number of Pregnancies per 100 Women		
Method	Perfect Use	Typical Use
LAM	0.5	2.0
Mirena® IUD	0.1	0.1
Depo-Provera®	0.3	3.0
The Pill / POPs	0.3	8.0
Male condom	2.0	15.0
Diaphragm	6.0	16.0
* Adapted from information at plannedparenthood.org.		

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How can I maximize my natural period of infertility?

Timing for the return to fertility varies greatly from woman to woman and depends upon baby's nursing pattern and how sensitive mom's body is to the hormones involved in lactation.

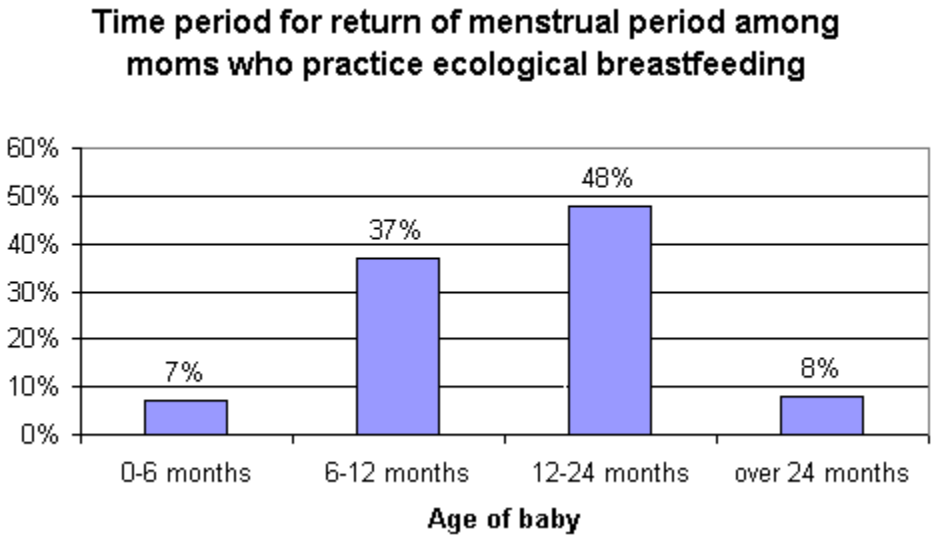
- Breastfeeding frequency and total amount of time spent breastfeeding per 24 hours are the strongest factors leading to the return of fertility: a mother is more likely to see the return of fertility if baby's nursing frequency and/or duration is reduced, particularly if the change is abrupt.
- In some populations, research has shown that night nursing slows the return to fertility.
- One study showed that mothers who were separated from their infants (but expressed milk to provide 100% breastmilk for baby) had a higher pregnancy risk (5.2%) during the first 6 months (Valdes 2000).
- The introduction of solid food can also be a factor in the return of fertility. Once baby starts solids (if mom's cycles have not returned), the natural period of infertility may be prolonged by breastfeeding before offering solids, starting solids gradually, and not restricting nursing.

You can achieve higher effectiveness by practicing ecological breastfeeding:

- keeping baby close
- breastfeeding on cue (day and night)
- using breastfeeding to comfort your baby
- breastfeeding in a lying-down position for naps and at night
- using no bottles or pacifiers

If you practice ecological breastfeeding:

- Chance of pregnancy is practically zero during the first three months, less than 2% between 3 and 6 months, and about 6% after 6 months (assuming mom's menstrual periods have not yet returned).
- The average time for the return of menstrual periods is 14.6 months.
- Moms whose cycles return early tend to be infertile for the first few cycles. Moms whose cycles return later are more likely to ovulate before their first period.
  Source: Natural Child Spacing and Breastfeeding by Jen O'Quinn



Source: Natural Child Spacing and Breastfeeding by Jen O'Quinn

While it is possible for a nursing mom to become pregnant while she is breastfeeding and before she has her first menstrual period, it is rare. Most moms do not get pregnant until after their first period (often referred to as the "warning period"). Even after that, while some can become pregnant the first cycle, others will require months of cycles before pregnancy can occur. Still others (this is quite uncommon) may not be able to become pregnant until complete weaning has occurred.

THE TRANSITION TO FULL FERTILITY

Several studies have indicated that fertility and ovarian activity return step by step (Ellison 1996, p. 326-327):

1. Follicular activity without ovulation (No chance of pregnancy.)
   1a. Menstruation without ovulation (This does not always occur–see below.)
2. Ovulation without luteal competence (After the egg is released, fertilization may take place. During the luteal phase, the uterine lining is prepared for implantation as the egg travels down the fallopian tube and into the uterus. If the uterine lining is not adequately prepared for implantation, the implantation will probably not be successful.)
3. Full luteal competence (Full fertility — at this point breastfeeding no longer has any effect on your chance of pregnancy.)

It is possible to have one or (occasionally) more periods before you start ovulating. In this case, menstruation begins during the *first* stage of the return to fertility –before ovulation returns. Cycles without ovulation are most common during the first six months postpartum. For other mothers, the first menstruation is preceded by ovulation – a longer period of lactational amenorrhea increases the likelihood that you will ovulate before that first period.

A very small percentage of women will become pregnant during their first postpartum ovulation, without having had a postpartum period. Per fertility researcher Alan S. McNeilly, this "is rare and in our experience is related to a rapid reduction in suckling input."

It is not uncommon for breastfeeding mothers to report cyclical cramping or PMS-type symptoms – symptoms of an oncoming period without the period – for weeks or even months before their period returns. When this happens, the body is probably "gearing up" for the return of menstruation, but breastfeeding is still delaying the return of fertility.

The amount of time that it takes for the transition to full fertility varies from woman to woman. In general, the earlier that your menses return, the more gradual the return to full fertility.

	Menstruation without ovulation		First ovulation without luteal competence	Time between 1st period and ovulation	
Reference	0-6 mo	after 6 mo		0-6 mo	after 6 mo
Eslami 1990	67%	22%	–	8.4 weeks	0.1 week
Gray 1990	45.1%	"the rate fell greatly"	41%	–	–

	Frequency of ovulation				
Reference	Lactation: 1st cycle	Lactation: 2nd cycle	Post-weaning: 1st cycle	Post-weaning: 2nd cycle	Formula-feeding only: 2nd cycle
Howie 1982	45%	66%	70%	84%	94%

DO I NEED TO WEAN TO GET PREGNANT?

Probably not. If you are still transitioning to full fertility (as discussed above), breastfeeding may affect the success of implantation. Once implantation is successful, breastfeeding should not affect a healthy pregnancy (see A New Look at the Safety of Breastfeeding During Pregnancy for more information). If your periods have come back and settled into a regular pattern, it is likely that breastfeeding is no longer affecting your fertility.

Many moms can conceive without deliberately changing their toddler's nursing patterns. There is no "magic" threshold of breastfeeding that will allow you to conceive — every mother is different. Some moms need to stretch out nursing frequency and/or shorten nursing sessions to make it easier to conceive — babies naturally do this themselves as they get older, so one of your options is simply to wait a bit.

Changes that are more abrupt tend to bring fertility back faster (e.g., cutting out one nursing session abruptly, rather than gradually decreasing nursing time at that session) –*even if you continue to breastfeed a great*

deal– this is why many mothers experience the return of fertility when their child sleeps through the night or starts solid foods. If you decide to make changes to your nursing pattern, the time of day that you make the change (e.g., cutting out or shortening a nighttime nursing session as opposed to a daytime nursing session) should not make that much of a difference. Current research indicates that nursing frequency and total amount of time at the breast per 24 hours are the most important factors, rather than the time of day that the suckling occurs.

A few moms do find it impossible to conceive while nursing, but this is not at all common.

Many mothers wonder whether breastfeeding will affect the reliability of pregnancy tests. It does not — pregnancy tests measure the amount of the hormone hCG (human chorionic gonadotropin) in blood or urine, and hCG levels are not affected by breastfeeding. The developing placenta begins releasing hCG upon implantation; a pregnancy can generally be detected with a pregnancy test within 7-14 days after implantation.

For more information, see Getting Pregnant While Breastfeeding by Hilary Flower.

Birth Control and Breastfeeding

By Kelly Bonyata, IBCLC

COMBINATION CONTRACEPTIVES

It's recommended that any estrogen-containing contraceptive be avoided until baby is at least six months old AND after baby is well-established on solid foods.

Combination contraceptives contain both progesterone and estrogen and come in several different forms:

- The combination birth control pill (Alesse, Yasmin, Seasonale, Mircette, Loestrin, Lo/ovral, Demulen, Desogen, Nordette, Ortho Tri-Cyclen, Triphasil, Norinyl, Ortho-Novum, Ovral, etc.)
- the monthly injection (Lunelle)
- the birth control patch (Ortho Evra)
- the vaginal ring (NuvaRing).

Milk supply: Estrogen-containing contraceptives have been linked to low milk supply and a shorter duration of breastfeeding even when started when baby is older, after milk supply is well established. Not all mothers who take contraceptives containing estrogen will experience a low milk supply, but these unaffected mothers appear to be a very small minority.

Safety: Both progestin (progesterone) and estrogen are approved by the American Academy of Pediatrics (AAP) for use in breastfeeding mothers. See below for additional information on side effects related to lactation.

PROGESTIN-ONLY CONTRACEPTIVES

Progestin-only contraceptives are the preferred choice for breastfeeding mothers when something hormonal is desired or necessary.

Progestin-only contraceptives come in several different forms:

- the progestin-only pill (POP) also called the "mini-pill" (Micronor, Errin, Nor-QD, Ovrette, Microval, etc)
- the birth control injection (Depo Provera)
- the progesterone-releasing IUD (Mirena, Progestasert)
- the birth control implant (Norplant, Implanon).

Milk supply: For *most* mothers, progestin-only forms of contraception do not cause problems with milk supply **if** started after the 6th-8th week postpartum and if given at normal doses. However, there are many reports (most anecdotal but nevertheless worth paying attention to) that some women *do* experience supply problems with these pills, so if you choose this method you still need to proceed with some caution.

If you're interested in one of the longer lasting progestin-only forms of birth control (the Depo-Provera shot lasts at least 12 weeks, but effects may be seen up to a year; the Mirena/Progestasert IUD and the Norplant implant can last up to 5 years), it may be a good idea to do a trial of progestin-only pills (mini-pill) for a month or more before deciding on the longer-term form of birth control. If you find that you are among the women whose supply drops significantly due to progestin-only birth control, you can simply discontinue the pills – rather than struggling with low milk supply for several months until the shot wears off or you get the implant or IUD removed.

Do note that the Mirena/Progestasert IUD delivers its hormone directly to the lining of the uterus, which only leads to a slight increase in progesterone levels in the blood stream (much lower than that found with the progesterone-only pill). As a result, there is much less chance of side effects from the progesterone than from the Depo-Provera shot or mini-pill.

Milk composition: At higher doses than normal this type of pill can affect the *content* of breastmilk. At these higher doses it has been shown to decrease the protein/nitrogen and lactose content of the milk. At regular doses, this does not seem to be as likely.

Safety: Progestin (progesterone) is approved by the AAP for use in breastfeeding mothers. See below for additional information on side effects related to lactation.

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MORNING-AFTER PILLS

Morning-after pills should be used only as a last resort (whether you are breastfeeding or not).

There are currently two types of products on the market packaged specifically as "morning-after pills:"

- a combination pill containing estrogen and progestin (Preven, Ovral)
- a progestin-only pill (Plan B).

Milk supply: Estrogen, in particular, has been linked to low milk supply in nursing moms. There may be a slight drop in milk supply a few days after taking the morning-after pill, but milk levels should rebound thereafter. See Increasing Low Milk Supply for additional info on increasing milk supply. Talk to your health care provider and/or lactation consultant about using an herb that increases milk supply (fenugreek, for example) to reduce any adverse effects on supply.

Safety: The morning after pill is considered compatible with breastfeeding, but should only be used rarely. Not the first choice for routine birth control, it should be used only as a last resort (whether breastfeeding or not). Both progestin and estrogen are considered compatible with breastfeeding by the AAP. See below for additional information on side effects related to lactation.

SIDE EFFECTS RELATED TO LACTATION

Milk supply: As noted above, hormonal birth control pills (particularly those containing estrogen) have the potential to decrease milk supply, sometimes dramatically.

Effects on baby: There have been no adverse reports of side effects to the baby. Both progestin and estrogen are approved by the AAP for use by nursing moms. Children whose mothers used hormonal birth control while nursing have been followed as late as 17 years of age. The exception to this is the very young baby – less than 6 weeks old. There may be some concern about the baby's immature liver being able to metabolize the hormones passed through the milk well enough.

Any hormonal birth control may cause fussiness in the baby (not reported in the literature but often anecdotally by mothers). This may be due to the hormones causing a minimal decrease in the protein/nitrogen/lactose content of the milk. Some mothers have reported marked improvement in their baby's degree of fussiness once they come off hormonal birth control.

Effects on mother: If you had gestational diabetes during pregnancy, talk to your doctor about the safety of using the mini-pill while breastfeeding. A 1998 study conducted at the University of Southern California School of Medicine in Los Angeles (Kjos SL, et al. Contraception and the risk of type 2 diabetes mellitus in Latina women with prior gestational diabetes mellitus. *JAMA*. 1998 Aug 12;280(6):533-8.) indicated that for certain women, taking the mini-pill while breastfeeding may increase the risk of chronic, non-insulin-dependent

diabetes. This study of more than 900 Latinas found that those who had been diagnosed with gestational diabetes and then took mini-pills while breastfeeding had an almost threefold risk of developing type II diabetes within a year, compared with those who used different contraception. This study concentrated on Hispanic women, and thus it is not clear whether the results can be applied to all ethnic groups. Other, smaller studies on the mini-pill did not show any increased rates of diabetes, so more research in needed on this subject.

HERE'S THE BOTTOM LINE…

- Use any hormonal type of birth control with caution (particularly the forms that contain estrogen).
- Use as low a dose as possible.
- If you experience supply problems (or if baby's weight gain slows more than expected or stops) and are using any type of hormonal birth control, it's a good idea to discontinue using it for a time and see if your supply rebounds as a result.

INFO ON SELECTED CONTRACEPTIVE MEDS

Info on selected contraceptive meds			
Name of medication	AAP approved?*	Pregnancy Risk Category**	Lactation Risk Category**
Progestin-only contraceptives			
Etonogestrel Implant (Implanon)	NR	**X**	**L2**
Levonorgestrel (Mirena, Norplant, Plan B)	**Approved**	**X**	**L2**
Medroxyprogesterone (Provera, Depo-Provera, Cycrin)	**Approved**	**D**	**L1** **L4** (if used first 3 days postpartum)
Norethindrone (Aygestin, Camila, Errin, Jolivette, Micronor, Nora-BE, Norlutin, Nor-QD, Ortho-Micronor)	NR	**X**	**L1**
Norethynodrel (Enovid)	**Approved**	**X**	**L2**
Progesterone (Crinone, Prometrium)	**Approved**	-	**L3**
Estrogen-containing contraceptives			
Desogestrel + Ethinyl Estradiol (Cyclessa, Desogen, Mircette)	NR	**X**	**L3**
Drospirenone + Ethinyl Estradiol	NR	**X**	**L3**

(Yasmin)			
Estrogen-Estradiol	**Approved**	**X**	**L3**
Ethynodiol Diacetate + Ethinyl Estradiol (Demulen)	NR	Estradiol is **X**	Estradiol is **L3**
Etonogestrel + Ethinyl Estradiol (Nuvaring)	NR	**X**	**L3**
Levonorgestrel + Ethinyl Estradiol (Alesse, Nordette, Preven, Seasonale, Triphasil)	NR	**X**	**L3**
Medroxyprogesterone + Estradiol Cypionate (Lunelle)	NR	**X**	**L3**
Norelgestromin + Ethinyl Estradiol (Ortho Evra patch)	NR	-	**L3**
Norethindrone + Ethinyl Estradiol (Loestrin, Norinyl, Ortho-Novum)	NR	Estradiol is **X**	Estradiol is **L3**; Norethindrone is **L1**
Norgestimate + Ethinyl Estradiol (Ortho Tri-Cyclen)	NR	Estradiol is **X**	Estradiol is **L3**
Norgestrel + Ethinyl Estradiol (Lo/Ovral, Ovral)	NR	Estradiol is **X**	Estradiol is **L3**
Oral Contraceptive pill with estrogen/progesterone (Norinyl, Norlestin, Ortho-Novum, Ovral, etc.)	**Approved**	**X**	**L3**

* Per the AAP Policy Statement The Transfer of Drugs and Other Chemicals Into Human Milk, revised September 2001.

- **Approved**: (Table 6) Maternal Medication Usually Compatible With Breastfeeding
- **Caution**: (Table 5) Drugs That Have Been Associated With Significant Effects on Some Nursing Infants and Should Be Given to Nursing Mothers With Caution
- NR: Not Reviewed. This drug has not yet been reviewed by the AAP.

** Per *Medications' and Mothers' Milk* by Thomas Hale, PhD (2004 edition). *Note: Hale urges caution if estrogen-containing contraceptives are used by nursing moms, due to the risk for a dramatic reduction in milk supply.*

Lactation Risk Categories	Pregnancy Risk Categories
• **L1** (safest) • **L2** (safer) • **L3** (moderately safe) • **L4** (possibly hazardous) • **L5** (contraindicated)	• **A** (controlled studies show no risk**)** • **B** (no evidence of risk in humans) • **C** (risk cannot be ruled out) • **D** (positive evidence of risk) • **X** (contraindicated in pregnancy)

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NR: Not Reviewed. This drug has not yet been reviewed by Hale.

GENERAL INFORMATION ON BIRTH CONTROL CHOICES

- Managing Contraception is the website of Dr. Hatcher, author of the excellent book *Managing Contraception*.
- Contraception Online is a useful general website from Baylor College of Medicine
- *A Pocket Guide to Managing Contraception* by Robert Anthony Hatcher, M.D., MPH, et. al. includes accurate information on LAM and other methods of contraception