Women's Health Issues

Menstruation

The timing and amount of blood flow you experience during your monthly menstrual cycle depends on the coordinated performance of your endocrine glands, which produce the hormones necessary for menstruation to occur when pregnancy does not. What they do affects what happens in your reproductive organs.

First, What Are the Reproductive Organs?

The uterus is a pear-shaped organ which, in its non-pregnant state, is collapsed and about the size of your fist. It is located between the bladder and the lower intestines.

The lower third of the uterus is called the cervix. The cervix has an opening called the "os," which opens into the vaginal canal and permits your period to flow out.

Extending from each side of the uterus are the fallopian tubes. Near the end of each fallopian tube is an ovary.

The ovaries are almond-sized organs which produce eggs. Each ovary contains from 200,000 to 400,000 follicles. These follicles contain the material necessary to produce eggs.

The inner lining of the uterus is called the endometrium. The endometrium sheds during menstruation. In addition to endometrial tissue, your menstrual flow also contains blood and mucus from the cervix and vagina. When pregnancy occurs, the endometrium thickens and fills with blood vessels that mature into the placenta that contains the growing fetus.

Which Hormones Interact with the Reproductive Organs?

The area of the brain called the hypothalamus, together with the pituitary gland, which also is in the brain, control the hormones necessary for reproductive health.

Six hormones serve as chemical messengers to your reproductive system. These hormones include:

- Gonadotropin-releasing hormone (GnRH)
- Follicle-stimulating hormone (FSH)
- Luteinizing hormone (LH)
- Estrogen
- Progesterone
- Testosterone

During your menstrual cycle, GnRH is released first by the hypothalamus. This causes a chemical reaction in the pituitary gland and stimulates the production of FSH and LH. Estrogen, progesterone, and testosterone (yes, the "male" hormone) are produced by the ovaries in reaction to stimulation by FSH and LH. When these hormones work harmoniously, normal menstrual cycles occur.

Your Menstrual Cycle in Phases

The menstrual cycle is divided into two phases--the follicular or proliferative phase; and the luteal or ovulatory phase. The follicular phase includes the time when menstruation occurs and is followed by proliferation or the growth and thickening of the endometrium. This phase typically lasts from 10 to 14 days, starting with the first day of menstruation.

Estrogen and progesterone levels are at their lowest during menstruation. When bleeding stops, the proliferative phase begins causing the endometrium to grow and thicken in preparation for pregnancy. During the next (approximately) two weeks, FSH levels rise causing maturation of several ovarian follicles and the size of the eggs triple.

FSH also signals the ovaries to begin producing estrogen which stimulates LH levels to surge at around day 14 of your cycle triggering one of the follicles to burst, and the largest egg is released into one of the fallopian tubes.

This phase is followed by the premenstrual phase, known as the luteal phase. This premenstrual period lasts approximately 14 days. After ovulation, LH causes the corpus leuteum to develop from the ruptured follicle. The corpus leuteum produces progesterone.

Together estrogen and progesterone stimulate the endometrium to prepare a thick blanket of blood vessels that will support a fertilized egg should pregnancy occur. When pregnancy occurs, this blanket of blood vessels becomes the placenta which surrounds the fetus until birth.

When pregnancy does not occur, the corpus leuteum deteriorates and becomes the corpus albicans. Once this occurs, progesterone and estrogen levels decline, and the endometrial lining is shed during menstruation.

- Periods can vary greatly from woman to woman and from month to month and still be normal. Generally, the length of your menstrual cycle can fluctuate from 3 weeks to 5 weeks, without alarm.
- When counting the days in your cycle, always count the first day of your period as day one. The average period lasts about 6 days, although some women may experience slightly shorter or longer periods and be perfectly normal.
- Variations in the amount of menstrual flow and the timing of menstruation are quite normal in young women during the first few years following the onset of menstruation. Periods may be irregular or very light. The use of oral contraceptives can often cause fluctuations in menstruation which include either light periods or spotting/bleeding between periods.
- It is not uncommon for young women to feel frightened when dark clumps of tissue is discovered in their menstruation. However, this is usually nothing abnormal and just a part of the endometrium, or uterine lining that is shedding.
- The average age of the onset of menstruation is about 12 or 13, however it may begin as young as 8 for some girls or not until 14 or 15 for others. If your period has not started by the time you are 16, see your physician to determine whether there may be an underlying condition.

Make a Menstrual Cycle Calendar

Making a menstrual cycle calendar is a simple, and easy, way to record your reproductive health. As women, it is always important to know the first day of our last periods. And when things go wrong with our periods, having a record of past periods is a plus when we talk to our doctors.

It takes just a minute to keep this important information about our menstrual cycles up-to-date, and handy, for when questions arise about our periods. Here's how you can make your own menstrual cycle calendar.

Here's How:

1. Decide what you will use to mark your period on your calendar. You can simply write, "1st day," "2cd day," and so on, or you can choose to use a symbol of some sort. Many women choose to circle the dates of the first and last days of their periods. Use a red marker to make the days you had your period easier to spot.
2. Each day during your period, describe the flow of your menstruation on your calendar. Is the flow of your period heavy, medium, or light? Use your red marker to write "H" for heavy, "M" for medium, or "L" for light on your menstrual cycle calendar. If the flow of your period is extra heavy or light, you can simply make an "X" in front of the other letter you use to describe your period.
3. Do you have the signs or symptoms of premenstrual syndrome -- PMS? Write on your calendar on each day of the month. Describe how you feel and what types of symptoms you're having on a particular day. Do you have a headache? Are you feeling bloated or

retaining water? Are you happy, or has it been a bad day? Just a word or two about how you feel everyday will help you to see if there is a pattern emerging so that your doctor can help you if you have premenstrual syndrome or PMS.

Tips:

1. Use a calendar with big squares to write in so that you have plenty of room to describe how you feel on days when a small square might not be big enough.
2. Start making your menstrual cycle calendar today, or wait until the first day of your next period.

What You Need:

- A calendar
- Red marker or pen

What is PMS and what can I do to alleviate my symptoms?

Premenstrual Syndrome, or PMS, as it is more commonly known is a disorder that affects millions of women monthly. With more than 150 symptoms, it can sometimes be a chore to get a correct diagnosis. Up to 80 percent of women may suffer from PMS, though, many times the medical profession is unwilling to diagnose women with this disorder. Many doctors do not take women seriously when they present themselves, requesting treatment for PMS.

PMS refers to the time before a woman's menstrual cycle begins and usually improves once menstruation has begun. For many women the symptoms are unbearable. Symptoms are both physical and emotional and include; food cravings, mood swings, fluid retention, compulsive behavior, headaches, nausea, crying, and a host of other complaints.

PMS is believed caused by an overabundance of estrogen and a deficiency in progesterone. Some also believe that PMS is caused by the body's inability to properly metabolize fatty acids.

What can you do?

If you are overweight, you should try to lose some of your excess pounds. Excess body weight has been shown to increase the symptoms of PMS. Sugar consumption is also believed to contribute to symptoms, so you should try to limit your intake of sugar during the time you are experiencing symptoms. According to a report in the "Journal of Reproductive Medicine," women who report symptoms of PMS, consume three times the amount of sugar as women who do not report symptoms. Try limiting your sugar intake before your period.

Another way to help relieve some of the severity is through regular exercise. Try taking a 20-30 minute walk three or four times a week and see if your symptoms don't improve.

"USA TODAY" reported, in 1997, that Prozac may be useful in the prevention and treatment of PMS. In a study conducted at St. Joseph's Hospital in Hamilton, Ontario, 405 women were treated with Prozac for symptoms of PMS. Half of the women were given Prozac, while the other half were given a placebo. At least 50 percent of the women taking Prozac reported a significant improvement in their symptoms.

You should prepare yourself before seeing your physician, by keeping a calendar of symptoms for at least one month prior to your appointment. This way you will be ready to show your doctor what symptoms you have and when they occur. Your doctor will be able to give a more accurate diagnosis and treatment if you are prepared and able to give complete details.

There is hope, but it takes an understanding family and physician. Some women have made a calendar to let their family know when they are not feeling so great. Try making your own and on the days you experience the symptoms of PMS, place a sad face on the calendar, so your family will know how feel. Give yourself space and don't expect to be *Super Woman* all the time. Take care of yourself first, even if it means that your husband or significant other has to cook dinner or wash the dishes. It is also a good idea, not to make major decisions on your PMS days. Most decisions can wait until you are back to your normal, cheerful self.

10 Ways to Reduce the Symptoms of PMS

Premenstrual Syndrome (PMS) affects most women to some extent at some time during their reproductive years. Symptoms can range from mild fluid retention to severe mood swings and/ or depression.
Women who want to reduce or eliminate the symptoms of PMS can try some of these other methods which have proved helpful to many women:

1. Research has proven that you can reduce up to almost half of all symptoms (including mood swings, depression, and menstrual cramps) of PMS by simply consuming 1200 mg of calcium daily. Calcium is an important nutrient for women of all ages for the prevention of osteoporosis in later life.
2. One of the best ways to reduce PMS is through regular exercise. Not only does exercise reduce, or sometimes eliminate premenstrual syndrome, it also is an excellent way to reduce stress and lower your risk of diseases including heart disease and cancer.
3. Dietary changes that may help reduce the symptoms of PMS include following a low-fat vegetarian diet, and/ or reducing your intake of refined sugar, salt, red meat, alcohol, and caffeine. Increasing your consumption of complex carbohydrates, leafy green vegetables, fruit, cereals and whole grains is also helpful for many women.
4. Some women are able to control the symptoms of PMS by using oral contraceptives; however it's important to weigh the pros and cons of hormonal treatment since the side effects are sometimes more bothersome than the original symptoms.
5. Over-the-counter treatments that may help include ibuprofen, naproxen, and other drugs specifically made for relieving premenstrual symptoms such as Midol. Aspirin may not be a good choice for women during menstruation because of its potential to increase the length and severity of menstrual bleeding.

What is severe menstrual pain?

Some women have extreme cramping just before and during their period. The technical term for this is dysmenorrhea. If you have this kind of pain, you should seek treatment. Severe menstrual pain may be a symptom of endometriosis.

What can be done about severe menstrual pain?

Several types of medicine are used to treat painful cramps. These include:

1. Over-the-counter pain relievers, such as aspirin, ibuprofen, naproxen (for example, Aleve), or acetaminophen may be helpful.
2. If over-the-counter medicines don't work, your doctor can give you a prescription for a stronger pain reliever, such as codeine.
3. Birth control pills or other medicines may be used to reduce cramping.
4. Surgery usually is not necessary if severe menstrual pain is the only problem.

When Should I Change Tampons or Pads during My Periods?

During your periods, pads or sanitary napkins should be changed as often as necessary to prevent the pad from becoming soaked with menstrual flow. You will learn to know how long you feel comfortable before you change pads during your periods.

If you use tampons during your periods make sure you change them at least every 4 to 8 hours to help prevent a rare, but potentially fatal disease called toxic shock syndrome or TSS. Always use the lowest absorbency tampon necessary for the amount of menstrual flow you are experiencing on each day of your period. Using super absorbency tampons on the lightest day of your period potentially puts you at risk for toxic shock syndrome. Those most at risk for TSS include women under thirty, particularly teenage girls.

Don't believe it if someone tells you that only certain types of tampons put you at risk for TSS. That just isn't true. It doesn't matter if the tampon is made of the purest cotton or of rayon, or what absorbency it is - all tampons put you at risk for toxic shock syndrome.

Your risk for toxic shock syndrome may be lessened by alternating between tampons and pads. For example, many women use tampons during the day and pads at night during their periods. Other methods for reducing your risk for toxic shock syndrome and other problems resulting from tampon use that are recommended by the Food and Drug Administration or FDA include:

- Always read and follow the directions for tampon insertion on the brand that you purchase.
- Learn which absorbency is right for your menstrual flow and choose the appropriate tampon absorbency.
- Change your tampon at least every 4 to 8 hours.
- Think about alternating pads with tampons.
- Know the signs and symptoms of toxic shock syndrome.
- Don't use tampons between periods.

Symptoms of Toxic Shock Syndrome

Toxic shock syndrome is a rare condition often associated with tampons. Toxic shock syndrome is only diagnosed after all other possible viruses or infections have been ruled out.

According to the National Women's Health Information Center or NWHIC, if you experience any of the following 7 signs and symptoms of toxic shock syndrome during your period you should contact your health care provider immediately!

1. High fever that appears suddenly
2. Muscle aches
3. Diarrhea
4. Dizziness and/or fainting
5. Sunburn-like rash
6. Sore throat
7. Bloodshot eyes

Good Hygiene

Showering every day – we sweat more now. Bacteria on our skin causes odors. Must be washed off. Vaginal area sweats more when we have our periods. Wash under arms.

Don’t use douches.

Clean from front to back when wiping after using the toilet or when taking a shower.

Birth Control

Which Method is Right for Me?

Birth control is a difficult and personal decision. The Bible does not address this issue - probably because in Biblical times there were no good, effective ways to have sex without pregnancy. Because the Bible is silent, there are a wide variety of beliefs about contraception, ranging from those who feel it's sin to use anything (including abstinence when the woman is fertile), to those who feel anything (including abortion) is acceptable. Our goal here is not to debate these theologies, or to provide the final word on contraception - rather we hope to provide factual information that will allow each couple to make an informed, prayerful decision.

No form of contraception is completely effective, but most are fairly good **provided** they are used correctly and consistently; the **vast majority of failures** are due to misuse or non-use. Learn all that you can about the method you choose so you can use it properly. More on contraceptive failure, and a chart of failure rates for various methods, here.

Hormonal Methods - Pills, Implants, Shots, Rings and Patches:

Hormonal methods are the most used form of contraceptive today. They are also the most controversial for Christians. Some methods primarily prevent fertilization, while others primarily prevent implantation. The debate about these methods is based on uncertainty about which methods can destroy a fertilized egg, and which do not. If you think life begins when the fertilized egg implants in the womb, the distinction does not matter to you. If you feel it's a sin to do anything that will destroy a fertilized egg, the distinction makes a great deal of difference to you. For detailed investigation of this issue we highly recommend an article by John Guillebaud, Professor of Family Planning and Reproductive Health at University College London, and a dedicated Christian.

Our thinking on how certain hormonal methods do and do not work has changed somewhat over the years (more), in large part because of the influence of several Christian medical professionals with whom we have discussed the issue. What we say here is based on the best science we can find, but there are no absolute answers for some methods. Ultimately each couple must prayerfully find what is right for them.

All hormonal methods of contraception contain a progestin, a synthetic form of progesterone, and some methods also contain a synthetic estrogen. There are seven progestins and two synthetic estrogens used, in different combinations and strengths - this means that various methods can have very different side effects. Some side effects are only apparent for the first month of two of using a new method, others are long term. If a woman doesn't have health issues which preclude her using hormonal methods, she should be able to find one that works well for her if she will take time to talk to her health care provider about her cycles and any side effects she experiences.

Other Considerations for hormonal methods: While the current hormonal methods are much safer than the higher dose pills used a couple of decades ago, there are still side effects to consider. All hormonal forms of contraception contain a progestin like chemical, and progestins are well known for lowering sex drive. Complaints of this happening are most common with the long term injections and implants, but it has been noted as sometimes occurring with pills too. Recent reports have suggested that sexual side effects from hormonal contraceptive can last for a year or more after the method is discontinued.

There have been concerns in the past that certain drugs, especially antibiotics, could reduce the effectiveness of hormonal pills. Recent well done studies found no evidence of a problem with most antibiotics - the exception being Rifampin, which certainly does increase the chance of ovulation occurring. Still, if it seems wise to use a back up method of contraception while on antibiotics - particular if you feel life begins when sperm and egg join. Several anti-seizure medications (Phenobarbitol, Phenytoin, and Carbamazepine) are well documented to significantly reduce the effectiveness of contraceptive pills, resulting in up to 25 times higher pregnancy rates. Several antifungal medications may also result in more pregnancies - Griseofulvin in particular is a concern, with Fluconazole, Ketoconazole, and Itraconazole being less certain. There is also concern that St. John's Wort may reduce the levels of hormones and result in more more pregnancies. Finally, there is concern that a woman's total body weight may be a factor in how effectively the pill prevents ovulation, so larger women should talk to their doctor and consider avoiding very low does pills.

Another issue is that these methods seem to alter the women's sexual response that comes from pheromones. If she is strongly attracted to a man normally, she may be less attracted while taking hormonal contraceptives.

Pills

Progestin Only Pills: Progestin Only Pills (POP's) almost certainly allow ovulation at least some of the time. That means possible fertilization, followed by destruction of the fertilized egg, because the

progestin inhibits implantation. If you see life as starting at fertilization, POP's are not for you. Note - progestin only pills are commonly used as a method for breastfeeding women, and are very effective at suppressing ovulation **when combined with lactation**.

Cerazette is a progestin only pill, that is taken every day of the year, and is more effective at preventing ovulation than other POP's. We've seen Christian doctors who think it does not allow ovulation when taken properly, but we'd like to see convincing evidence. Currently available in Western Europe, Brazil, Ecuador, Hong Kong, and Mexico.

Combined Oral Contraceptives: There is now good evidence that Combined Oral Contraceptives (COC's), which contain both a progestin and a synthetic estrogen, are so effective at preventing ovulation that fertilization can not occur. It is true that the progestin in the pills could interfere with implantation **if** an egg was fertilized, but if fertilization never occurs this is irrelevant. There are a couple of caveats to this: firstly the pills must be taken very regularly, not just daily, but at the same time each day, and secondly the week without pills (or with non-hormonal place holder pills) must not be lengthened. (Prof. Guillebaud suggests that one can further improve the ovulation suppression of COC's by reducing the pill free interval to 4 days per cycle - discuss this with your health care provider if interested.)

Yasmin is a COC that deserves a few extra words. This pill contains a form of progestin that seems to have some unique benefits - Yasmin can reduce acne or excessive hair growth in women suffering from these conditions. However, anecdotal evidence suggests that Yasmin may harm sex drive move than some other methods. Yasmin is available in the US, Australia and Europe.

Seasonale is a combination pill that is taken on a different schedule - a pill is taken daily for 12 weeks, then for one week an inactive pill is taken. In addition to providing contraception, this schedule reduces menstruation to four times a year. Prolonged use of "active" pills in this way should be even more effective at preventing ovulation than traditional pill schedules.

While Seasonale is new, such "continuous use" of pills is not. Other pills have been prescribed this way for some time, and a woman looking for fewer periods should discuss with her health care provider various ways of achieving this.

If a woman can take pills very regularly, COC's should be a safe form of contraception, even for a couple that feels life begins when sperm and egg join.

Other Hormonal Methods

Many new approaches to hormonal contraception are now available. Some of these are progestin only, but because the delivery system ensures a constant, proper level of the hormone, ovulation may be fully suppressed.

Implants - Norplant, Norplant II (Jadelle) & Implanon: These consist a rod or rods containing slow release progestin which are inserted under the skin. The steady flow of progestin prevents ovulation. Norplant, removed from the market in 2000, worked for 5 years. Norplant II, which is currently available, works for two years. Implanon works for three years. Some women experience prolonged periods, or spotting between periods, with these methods. Removal of the implant(s) results in a fairly rapid return of fertility. We've heard good things about Implanon from both medical personnel and users, and there is good evidence that no ovulation occurs with Implanon - other implants are less successful at preventing ovulation, and loss of fertilized eggs is likely. Implants are available in much of the developed world, but are less available in developing countries.

Depo-Provera: is an injection that is given every 12 weeks. It is intended to prevent ovulation and seems to be effective at doing so. If you are concerened about ovulation talk to your medical provider about having it injected every 10 weeks. Fertility can not be reestablished until the drug has left the woman's system, which can happen anywhere from immediately after not getting a scheduled shot to a full year. This method rates a high level complaints from women who've used it, including problems with weight gain and significant loss of sex drive.

Several studies have documented a loss of bone mineral density in long term users of Depo-Provera. The FDA has said Depo-Provera should be used by women only if other contraceptives prove

inadequate. While recent studies suggest the loss may be fully reversible after the shots are discontinued, the FDA warning seems a wise precaution until there is definitive research on the issue.

Nestorone Implants are a new implant currently being developed. Nestorone is being specifically aimed at lactating women in developing countries. Non-lactating women experience prolonged and irregular bleeding with Nestorone. It seems likely that the method will not fully stop ovulation in non-lactating women.

Combined Injectable Contraceptives: CIC's are injections that are given monthly. CIC's contains both estrogen and progestin, and it's likely that they are very effective at preventing ovulation - but we have not seen conclusive data yet. It has been suggested that these products may be safer for the user than COC's, and there is limited evidence supporting this. Currently available CIC's:

- Lunelle (also called Cyclofem, Cyclofemina, Feminena, and Novafem) does not seem to cause as much weight gain as Depro-Provera, and fertility normally returns more quickly (3-6 months). Primarily available in Latin America and Asia. The FDA approved Lunelle, but it is not currently available in the US, having been withdrawn due to manufacturing concerns.)
- Mesigyna (also called Norigynon) is widely available in Latin America and Asia, not currently available in Europe or North America.
- Deladroxate (also called Perlutal, Patectro, and Topaselused) is available in Latin American countries.
- **NuvaRing:** A ring about two inches in diameter which is placed into the vagina and left in place for 21 days. The ring is held in place by the vaginal muscles, and is not felt by the women once in place. The ring continuously releases small amounts of synthetic estrogen and progestin into the woman's body, preventing ovulation. After 21 days the ring is removed to allow for a menstrual period. After a week a new ring is interested. Because hormones are released in a steady stream, this method is very effective at preventing ovulation. The low, steady dose of hormones may disrupt the woman's body less than the varying levels of hormones that come from daily pill use. This method may have less of an effect on sex drive, as the progestin avoids first-pass metabolism through the liver and therefore has less effect on the Sex Hormone Binding Globulin. Some husbands say they can feel the ring during intercourse, while others do not. NuvaRing seems to be one of those methods a couple either loves or hates. The NuvaRing is currently available in the US, Europe, Brazil and Chile. The company plans to introduce the product in Australia and Canada in 2005.
- **Nestorone:** A new ring currently being developed, nestorone will be good for 12 months. The ring will be worn for 3 weeks, then removed for one week to allow for menstruation, then reinserted. Not expected on the market before 2006 at the earliest.
- **Progestin rings:** There are currently two progestin only rings in development - Progering, and an unnamed product. Progestin only rings have been found to be less effective than rings containing both progestin and synthetic estrogen, and because they greatly thin the uterine lining it is likely they can destroy a fertilized egg.
- **Ortho Evra** (also called "the patch" or just Evra): Really just a new way to get the same hormones into a woman's blood stream. The woman wears each 1¾ inch square patch for a week, three weeks in a row, followed by a week with no patch. The patch may have less effect on sex drive since the progestin avoids first-pass metabolism through the liver and therefore has less effect on the Sex Hormone Binding Globulin. Based on data for other methods, the patch should result in effective suppression of ovulation, and prevent any fertilization - but at this time we are unaware of a study which directly shows this. Some users report more severe menstrual cramps and breast pain than pill users, but this is commonly only for the first cycle or two. **The patch is not as effective for women over 200 pounds.** Currently available in the US, Canada, Europe, Hong Kong, Singapore, and South Korea.
- **Plan B** (also called levonorgestrel or postinor-2) is a hormonal method that is intended to be used after intercourse has occurred. The method has been widely condemned by Christians as causing destruction of fertilized and/or implanted eggs. There is growing scientific evidence that Plan B stops ovulation, but does not have any effect on a fertilized egg.

- Plan B can prevent pregnancy if taken within 72 hours of intercourse. How effective the method is depends on the timing of intercourse, ovulation, and taking the drug. If intercourse is very close to the time of ovulation, it is unlikely that the drug can be taken soon enough to be effective.
- **Centchroman** (also called Centron and Saheli) is a non-hormonal once a week pill currently only available in India. Centchroman is free of the side effects common to hormonal pills, and based on limited studies seems to be very effective at preventing pregnancy. The drug does not prevent ovulation, and works only by preventing a fertilized egg from implanting.

IUDs

Standard IUD: Intrauterine Devices have long been called abortifacients, meaning they allow fertilization but prevent implantation or destroy the egg after it implants. Several studies have proven that the IUD, and particularly those with copper in them, have a powerful spermicidal effect. Further studies have shown that some women with IUDs who did not become pregnant had in their blood a hormone that only occurs after a fertilize egg has implanted. This was less common with copper IUDs, but was seen for both copper and inert IUDs. Clearly in these cases the IUD destroyed the fertilized egg after it implanted. Paragard T380A, which is available worldwide, is currently the most commonly used method of contraception.

Hormonal IUDs:

- Mirena (also called LevoNova) is an IUD that slowly releases the hormone levonorgestrel into the uterine lining during the five years it is in place. Mirena did not show the "implanting hormone" in users, but this does not mean that no fertilizations occurred. This IUD may suppress ovulation sometimes, but is does not do so reliably. There is no reason to think it's sperm killing effect is any greater than copper or inert IUD. Levonorgestrel thins the uterine lining, making it inhospitable to a fertilized egg. While not proven, the evidence strongly supports the theory that Mirena destroys fertilized eggs.
- Progestasert is an IUD that releases Progestin for the one year that it is in place. We have less data on Progestasert than on Mirena, but thinning of the uterine lining is substantial with Progestasert, and it's likely that destruction of fertilized eggs occurs.

Barrier Methods

Male condoms are the most common barrier method - and probably the least enjoyable for most men and many women. If you decide to go this way, it's important to try a number of sizes, since this affects both comfort and effectiveness. If a condom is too short, too wide, or too narrow, try another one. (If you can't find a good fit, try the "TheyFit" brand that comes in 55 sizes.) Condoms need to be put on before there is any contact between the penis and the woman's genitals. After ejaculation the penis must be withdrawn before any loss of erection, and the base of the condom needs to be held in place during withdrawal.

A possible side effect of condoms was recently found - women who use condoms have a higher rate of depression than sexually active women who do not use condoms. The theory is that semen contains chemicals which act as antidepressants when absorbed by the vagina; women using condoms do not receive this benefit from sex.

- **Polyurethane condoms** are becoming widely available. These condoms are thinner and transmit heat better, making them feel more natural. The down side is that the condoms don't have much stretch - this can increase splitting if the condom is too tight, and slippage if it's not tight enough. Proper sizing is even more critical with polyurethane condoms.
- New **synthetic materials** are being tested for condom use, with some products already available in limited areas. New materials are likely to become popular because they will be stronger, thinner, and will transmit heat better.

Tips for more enjoyable condom use:

- Placing a few drops of water soluble lubricant inside the condom before putting it on will improve sensation for the man.
- Some men find condoms with over sized tips more enjoyable and natural (Try Pleasure Plus or the Inspiral Condom .)
- Because polyurethane condoms are thinner and transmit heat better, some couples find them to be more enjoyable.
- So called natural or lamb's skin condoms, which dull sensations much less than other condoms, are still available - but expensive.

Female condoms are similar to the male version, except that they are inserted into the vagina. Since the condom does not move with the penis the sensation is more natural and more enjoyable for the man - however, some women find them uncomfortable. Female condoms have about twice the failure rate of male condoms, and are much more expensive. One selling point has been that they are thought to be better at protecting women from STDs.

- The **FC Female Condom** (formerly Reality in the US) is a tube of polyurethane stretched between two flexible hoops. The smaller hoop is inserted into the vagina, the larger hoop holds the condom on the outside. The FC Female Condom is widely available through out the world.
- The **Natural Sensation Panty Condom** is a reusable panty with a replaceable panty-liner that contains a synthetic resin condom (thinner and stronger than traditional condoms). When intercourse is to occur the condom is pushed into the vagina by the penis. The panty condom is available in parts of South America and parts of Europe, as well as by Internet sales.
- The **Reddy Female Condom** (also know as VA and V-Amour) is similar to the FC, except that it's made of latex, and the condom is held inside by a spongy insert rather than an inner ring. At this writing the Reddy is available in Spain and Germany. The company plans to market in in Western Europe, Brazil, India, and South Africa in 2005, and has plans to seek FDA approval.
- The **FC2 Female Condom** is a synthetic latex version of the FC. Because of less expansive assembly methods, it is expected to cost half as much as the FC. The FC2 is expected to be available in developing countries in 2005, with plans to seek FDA approval to follow.
- The **PATH Woman's Condom** has been through 50 prototypes, looking for a design that combines easy insertion, comfort, stability, and low cost. The final product is made of polyurethane, has a soft outer ring, a dissolving capsule that allows easy insertion, and sections of urethane foam that cause the condom to adhere to the walls of the vagina. In tests users have found the condom to be very satisfactory. Currently finishing trials to prove safety and effectiveness, the PATH may be available in some places as early as 2005. The company expects FDA approval in 2007.
- **Diaphragms and Cervical Caps** are placed over the cervix along with a spermicide. The spermicide kills sperm, while the diaphragm or cap prevents sperm from entering the cervix. Some people find putting in a diaphragm or cap to be a major interruption, while others see it as a minor issue. These methods are very comfortable for both the man and the woman, as neither should be aware of the product once inserted. These methods have fallen out of favor, in part because they do not prevent STDs, but this is not usually an issue for a Christian man and wife. We know couples who have been very happy with these methods for many years, so don't reject them out of hand.
- Diaphragms and standard cervical caps are reusable, prescription items that must be fitted to the woman's body by a doctor. A new fitting is required if the woman gains or loses weight, or has a vaginal delivery. Caps are much more difficult to fit in women who have given birth vaginally, and the failure rate is much higher for such women.
- **Lea's Shield**, also known as Lea's Contraceptive, is a device similar to a diaphragm or cap, but is one-size-fits-all and does not need to be fitted. Lea's does not have the same post

vaginal delivery problems that tractional caps have. Because Lea's has a "one way valve" it can be used during menstruation - something other diaphragms and caps can't do. In the US, Lea's is a prescription item, in Canada and Europe it is available over the counter.

- **Ovès** is a disposable cap-like device that comes in three sizes and must be fitted by a doctor - after fitting, the device may be purchased over the counter. Ovès can be worn for up to three days, and is effective for the entire three days without reapplication of spermicide. Ovès is made of a very thin layer of silicone which "clings" to the cervix, presumably providing better protection against pregnancy. To date no large, long term, studies of failure rate have been done; in one small study done by the manufacture there were no pregnancies in 17 women followed for an average of 11 months each. Actual use failure rate has been set at 4% by the manufacturer. Currently Ovès is available in the UK and France.
- A new one-size-fits-all diaphragm know as **SILCS** is currently undergoing testing - at this time there is no word on when it will be available.
- Also in development is **BufferGel Duet**, a disposable one-size-fits all diaphragm pre-filled with spermicide.

Spermicides can be used by themselves for contraception. There are a number of stand alone spermicides available as suppositories, creams, foams, and even a plastic film. The up side of these methods is that they do not cause a physical separation of the sex organs like condoms. The down sides are timing and possible irritation. Spermicides are only effective for a limited time (typically an hour) and some need to be inside the body for fifteen minutes before intercourse can occur. Some men, and fewer women, are irritated by nonoxynol-9, the active ingredient in all of the stand alone spermicides available in the USA. For women, frequency of use significantly increases the chance of irritation4 - used no more than every other day irritation is rare (3% over placebo). This can range from mild discomfort if they don't wash after sex to strong burning within seconds of contact. Most reactions are actually to one of the non-active ingredients, so changing brands can help in many cases. It should be noted that all stand alone spermicides list the same effectiveness rate, but independent research has shown that higher-dose products (100 mg or more of nonoxynol-9) are more effective, with a quarter fewer failures.5

Sponges: are pieces of foam containing a spermicide that are inserted into the vagina near the cervix. Sponges work both as a block to sperm and by killing sperm. Many women don't care for them, but they a have small loyal following. One advantage of the sponge is that it can be used for multiple sex acts without being replaced. Some men can feel the sponge, or it's removal tab, during sex. The failure rate is high - 9% for women who have not had a child, up to 20% for women who have.

- **Protectaid** is a Canadian product, also available in Europe, that contains low levels of three different spermicides - it is said to be less likely to cause irritation than sponges with a higher dose of a single spermicide.
- **Pharmatex**, available in Canada and Europe, is a small cylinder rather than a cup shape.
- The **Today** sponge was withdrawn from the US market a decade ago because of manufacturing problems. Today is currently available in Canada, and having won FDA approval in the spring of 2005 it should be available in the US again by late summer 2005.
- A new sponge called **Advert** is currently in development.

NFP and FAM

NFP and FAM: NFP stands for Natural Family Planning, while FAM stands for Fertility Awareness Method. Both methods involve knowing when the woman is fertile by charting one or more factors such as cycle length, morning body temperature, and condition of cervical mucous.

With NFP the only choices during the fertile time are intercourse with no birth control, and total sexual abstinence. If the signs of fertility are tracked consistently, and the couple does not "fudge" during the fertile time, NFP can be very effective. In fact, couples using NFP correctly have a much

lower failure rate than condom users, and about as good as typical pill users.Note: NFP is the only birth control method approved by the Roman Catholic Church.

FAM uses the same methods as NFP to determine when the woman is fertile, but during the fertile time the couple can have intercourse with a barrier method, or engage in sex that does not include intercourse. Done properly, FAM means a birth control product is only needed for a week to ten days each cycle - this can be nice for both sex and the pocket book. Another advantage of FAM is that both husband and wife are aware of the woman's cycle.

There are devices available to help determine when a woman is fertile and when she is not. The following is a very brief description of three such devices.

- Ladycomp is a fancy thermometer and mini-computer that takes the woman's temperature and does the needed calculations to determine fertility. It's pretty expensive, and it relies on body temperature - which can be thrown off by a fever, use of an electric blanket, or forgetting to use it before you get out of bed on a cold morning.
- Persona reads hormones in urine. Once you have it calibrated, you only need to test 8 times a month. IN addition to the cost of the device, there is $10 to $15 a month for test strips.
- Luna reads hormones indirectly. It uses saliva rather than urine, and has no ongoing expense. It's also the least expensive of the three.

Sterilization:

Vasectomy involves cutting the vas deferens, the tubes that transport the sperm out of the testicles. This is done by making a small incision in the scrotum in an outpatient procedure. Failure is very rare, and complications uncommon. Reports in the past tentatively linked vasectomy to some long term health issues, but better studies have since disproved any cause and effect relationship. No change in sex drive is caused by vasectomy, although a very few men seem to have a psychosomatic response that interferes with normal sexual function. Since the testicles provide less than 5% of seminal fluid volume, no difference in ejaculation is seen of felt following the procedure. Occasionally a man has significant problems from a vasectomy, and very rarely these can last for years after the procedure. The type of procedure done, and the skill of the doctor, seem to be factors in how likely a man is to have such problems. Do your homework, and find a doctor with a good deal of experience.

Although vasectomies can sometimes be reversed, this is never assured, and reversals are costly and often painful. A vasectomy should be considered a permanent form of contraception.

Vasclip is a new method of performing a vasectomy. A small plastic clip, about the size of a grain of rice, is snapped over each vas deferens - preventing sperm from leaving the testicles. Studies have shown the method to be less painful and to have a lower rate of complications. It is also believed that reversal will be more likely to succeed with this kind of vasectomy. The procedure is generally quicker than other forms of vasectomy. While likely to cost slightly more than a regular vasectomy, it is covered by insurance just like any vasectomy.

Intra Vas Device, a new method of closing the vas deferens, will begin large scale human trials in 2005. Two small two silicone plugs are inserted into each vas, effectively blocking sperm. In animal studies the procedure can be easily and reliably reversed. No word on when this might be available, but don't look for it before 2007 at the earliest.

Tubal ligation cuts and ties the woman's fallopian tubes so sperm cannot reach egg. A tubal is abdominal surgery, and as such carries far more risk than a vasectomy. For this reason, a tubal seems a poor choice unless the woman is having it done while a doctor is in the neighborhood performing a C-section.

One rare but serious complication of a tubal ligation is an ectopic pregnancy. In an ectopic pregnancy the fertilized egg implants in a fallopian tube rather than in the uterus. This is an extremely dangerous situation that results in death of the mother unless the pregnancy is terminated. The overall rate of ectopic pregnancy for traditional tubal ligations is .7% (7.3 in 1000). The method of performing the procedure has an impact on the chances of an ectopic pregnancy. The age of the

woman when the procedure was done was also significant, with women having a tubal under the age of 30 having double the risk of older women7.

Additionally, there have been claims that a tubal ligation can adversely affect a woman's sex drive and in a few instances even her ability to have or enjoy orgasm. Hormonal changes and early menopause are also claimed by some. This is a highly debated topic at present, and it seems impossible at this point to know the truth. We have seen studies which seem to fairly conclusively show some unexplained changes correlated to tubal ligation - for this reason we see a tubal ligation as a risk for a couple intending to continue a mutually enjoyable sex life.

- The **Filshie clip** is a different way of closing the fallopian tubes. The clip is put over the tubes, pinching them closed. The clip can be applied following a C-section, or can be done with laparoscopy surgery which involves only a very small opening being made into the abdomen. Because the surgery is less invasive, complications are fewer and recovery is faster. Because the fallopian tubes are not cut, the complications attributed to traditional ligations seem less likely.
- **Essure - Non invasive female sterilization**: A new form of female sterilization has been approved for use in the US. A small metal device that looks like a spring is placed in each fallopian tube by entering through the cervix. The entire process takes well under an hour. After three months scar tissue around the Essure device closes the tubes, causing infertility. The three year success rate is 99.8%, but some women fail to form sufficient scar tissue. Infertility is confirmed by x-rays. Because there is no surgical entry to the body, this method is much easier, has fewer complications, and has a much faster recovery than a tubal ligation. Because nothing is cut, it's likely that the complications attributed to ligations are not a factor with Essure. Currently available in the US, Canada, Europe, Australia, Indonesia, Singapore, and Turkey.
- **The Adiana Procedure** is another method of blocking the fallopian tubes by working through the cervix. Currently undergoing trials, the developers hope to win FDA approval in 2005.

Breast Health

5 Reasons Why Young Women Should Perform Breast Self Exam

When you're young, breast cancer is probably the furthest thing from your mind. However, it shouldn't be. Although breast cancer in young women is significantly less common among those from 20 to 39, it does happen. Don't believe it won't happen to you, I personally knew a young woman only 21 or 22 who had breast cancer. Finding time to incorporate breast self exam into your monthly schedule is easy when you realize just how important it is.

1. Except for certain types of skin cancer, breast cancer is the most common form of cancer diagnosed in women of all ages. Although the most confirmed and noteworthy risk factors for developing breast cancer are gender and growing older.
2. Younger women diagnosed with breast cancer often experience a more aggressive cancer and a lower chance of survival. This fact alone is enough to make early detection and breast self exam crucial for younger women.
3. Generally, screening mammograms are recommended at age 40. Sadly, this occasionally results in younger women not being diagnosed with breast cancer until the cancer is in a later stage, and can lower their chance of survival.
4. Because breast tissue isn't as thick when you're younger it can make diagnosis of breast cancer difficult. For this reason young women should begin monthly breast self exam at age 20, so that you can become familiar with how your breasts look and how they feel, thereby making it easier for you to notice any changes in your breasts.

5. Because the lifetime risk of breast cancer is one in seven for American women, establishing good breast health practices while you are still young can reduce your chance of getting breast cancer at a later stage.

Remember, anytime you see or feel any kind of change in your breast(s) you should see your health-care provider. Only a qualified medical professional can definitively diagnose the cause of breast issues. Breast changes don't always mean breast cancer, but they do mean you should see your doctor.

Perform a Breast Self Exam

One out of eight women are at risk of developing breast cancer over their lifetime. Monthly breast self exam is one part of total breast care that includes annual physical exams and mammograms after age forty.

Here's How:

1. Stand in front of a mirror. Look for any changes such as puckering, changes in size or shape, dimpling, or changes in your skin texture.
2. Look for changes to the shape or texture of your nipples. Gently squeeze each nipple and look for discharge.
3. Repeat these steps with your hands on your hips, over your head, and at your side.
4. Raise your right arm and examine your every part of your left breast. Move in increasingly smaller circles, from the outside in, using the pads of your index and middle fingers.
5. Gently press and feel for lumps or thickenings.
6. Using body cream, if necessary, continue to circle and gently massage the area outside your breast and under your arm.
7. Repeat with your left arm and right breast.
8. Lay down. Put a pillow under your right shoulder, and your right hand behind your head. Again gently massage and feel your breast for lumps or other changes.
9. Repeat with towel under left shoulder with left hand behind head.

Tips:

1. Menstruating women should do breast self-exam a few days after their periods end. Women who use oral contraceptives should do breast self exam on the first day of a new pill pack.
2. Post-menopausal non-menstruating women should pick a day and do breast self exam on the same day each month. Notify your physician immediately if you notice any changes or lumps.
3. Breast self exam should be a routine part of every woman's life. Talk to your daughters about the importance of breast self exam so it will become a routine part of their lives.

Symptoms of Breast Cancer

- an abnormal lump or thickening in or near the breast or underarm area
- any change in the size or shape of the breast
- abnormal discharge from the nipple
- change in the color or texture of the breast, aureola, or nipple
- any dimpling or puckering of the breast

Vaginal Yeast Infections

Seventy-five percent of all women will experience at least one vaginal yeast infection during her life and many are plagued by recurrent yeast infections. Learning to recognize the symptoms of vaginal yeast infection is vital before women attempt self-treatment.

Symptoms of yeast infection include itching, burning, redness, and irritation of the vaginal area. Severe yeast infections may cause swelling of the vulva and in some cases women experience painful and/or frequent urination which is caused by inflammation of the urinary opening.

Excessive vaginal discharge which is thicker than normal, appears whiter and curd-like (almost like cottage cheese) will be apparent in women experiencing vaginal yeast infections. Sexual intercourse may be painful due to the inflammation and dryness of the vaginal discharge.

What Causes Yeast Infections?

Candida albicans is a yeast-like fungus that is often found in the mouth, vagina, and intestinal tract; it is a normal inhabitant of humans that usually does not cause any adverse effects. *Candida* of the mouth is known as thrush and is often found in infants and people with a variety of health conditions. When *candida* is found in the vagina it is known as yeast infection or monilial vaginitis.

Yeast infections are caused by an overgrowth of the normal fungi that lives in the vaginal area. The most common fungi is *Candida albicans.* Overgrowth of *Caniida* is often a result of recent use of antibiotics, or by wearing clothing such as nylon or lycra that traps moisture and heat. Other factors that often contribute to yeast infections include pregnancy, obesity, PMS, multiple sclerosis, and diabetes.

Yeast infections are common among women infected by HIV and women who suffer from recurrent episodes of yeast infection should be tested for HIV infection. Other possible causes include the use of oral contraceptives, and consuming large amounts of sugars, starch, and yeasts.

If it's Not a Yeast Infection, What Could it Be?

Bacterial vaginitis is a far more prevalent vaginal infection than yeast infection and is characterized by a foul odor which is not present in yeast infection. Untreated bacterial vaginitis can result in pelvic inflammatory disease and lead to future infertility. It is imperative that a woman who is self-treating what she thinks is a yeast infection be positive that her vaginal infection is actually caused by yeast and not some other infection or STD.

Sexually transmitted diseases such as gonorrhea and herpes can be mistaken for yeast infections because some of the symptoms are similar -- there is discharge associated with gonorrhea, and herpes may often cause itching. Unless a woman is absolutely positive that her vaginal infection is yeast, she should seek the advice of her physician before self-treatment begins.

Women spend $60 million annually on OTC products and many times vaginal yeast infections are not the true culprit. Vaginal yeast infections commonly are misdiagnosed by women who buy one of the over-the-counter remedies which are available in the U.S. Self-treatment of vaginal yeast infections should never be attempted by any woman who has never been first diagnosed for at least one yeast infection by her physician.

If a woman is able to determine that her symptoms are truly caused by yeast, she has several treatment options she may choose from, including a variety of creams which are available at pharmacies throughout the U.S. Treatments with OTC products range from one to seven days. Creams available include brand names such as Monistat, Femstat, Gyne-Lotrimin, and Mycostatin.

Women who prefer a less messy alternative to the creams that are sold OTC may ask her physician for a prescription medication such as Diflucan, a one-dose oral medication for the treatment of yeast infection. Other oral medications include Nizoral, which requires that oral medication be taken for seven to 14 days either once or twice daily, depending on your physician's recommendations.

Remember, it is always advisable to phone your physician to discuss your symptoms and ask for his/her recommendation regarding the type of treatment that is best for you.

Tips to Prevent Yeast Infections

Always wear white cotton panties; avoid nylon and lycra as much as possible; **never** wear panty hose without wearing cotton panties underneath.

Post menopausal women and women who use oral contraceptives may find using a vaginal lubricant during sexual intercourse helpful in preventing vaginal discomfort and irritation.

Yeast is a normal inhabitant of the intestinal tract; **always** wipe from front to back after a bowel movement to prevent transferring yeast to the vaginal area; care must be taken during sexual intercourse to prevent vaginal infections from occurring due to contamination with organisms from the bowel or rectum.

Some women find eating one cup of yogurt a day when taking antibiotics is helpful to prevent the yeast infections that often follow antibiotic treatment; however yogurt alone will **not** cure vaginal yeast infections.

Avoid perfumed bath additives, as well as powders in the vaginal area. Douching is **never** a good idea since it washes away the natural protective mucous of the vagina and leaves women susceptible to vaginal infections.

Sexually Transmitted Diseases

Facts about Sexually Transmitted Diseases

- Sexually transmitted diseases (STDs) affect 12 million men and women in the United States each year.
- Anyone can become infected through sexual intercourse with an infected person.
- Many of those infected are teenagers or young adults.
- Changing sexual partners adds to the risk of becoming infected.
- Sometimes, early in the infection, there may be no symptoms, or symptoms may be easily confused with other illnesses.

Sexually transmitted diseases can cause:

- Tubal pregnancies, sometimes fatal to the mother and always fatal to the unborn child
- Death or severe damage to a baby born to an infected woman
- Sterility (loss of ability to get pregnant)
- Cancer of the cervix in women
- Damage to other parts of the body, including the heart, kidneys, and brain
- Death to infected individuals

See a doctor if you have any of these symptoms of STDs:

- Discharge from the vagina, penis, and/or rectum
- Pain or burning during urination and/or intercourse
- Pain in the abdomen (women), testicles (men), and buttocks and legs (both)
- Blisters, open sores, warts, rash, and/or swelling in the genital area, sex organs, and/or mouth

- Flu-like symptoms, including fever, headache, aching muscles, and/or swollen glands

What Does Everyone Need to Know About STDs?

Everyone, young or old, rich or poor, sexually active or not, needs to know a few important facts about sexually transmitted diseases. It's particularly important that, if we are parents, we spend time throughout our children's lives discussing these issues in an age-appropriate manner. The more educated our children and teens are about the facts about sexually transmitted diseases, the better the chance is that if they do decide to have sex they will know how to protect themselves from sexually transmitted diseases and infections, as well as HIV the virus that causes AIDS, and unplanned pregnancy.

Other important things you need to know about STDS include:

Sexually transmitted diseases do not discriminate. You can be any age, race, religion, financially secure or insecure, any education level and hold any job from blue collar to CEO. The point is anyone who participates in sexual activity is at risk of contracting a sexually transmitted disease or infection. The three ways to protect yourself from sexually transmitted diseases are:

- **Abstinence** – not having sexual relations with anyone.
- **Monogamy** – two partners who are in a long term, committed relationship and who have sex with only each other.
- **Condoms** – both male and female condoms are available and must be used consistently and correctly during every act of sex.

It may not surprise you to know that the majority – two-thirds – of all sexually transmitted diseases occur in teenagers and young adults under the age of twenty-five years old. Even with all the education and resources available today, sadly, the number of cases of STDs continues to rise.

For women the signs and symptoms of STDSs are sometimes difficult to recognize simply because oftentimes there are no obvious symptoms of sexually transmitted diseases in women. Another reason is misdiagnosis because the signs of STDS are easily confused with other reproductive health problems and the proper treatment may not be prescribed. This makes is urgent that you are honest with your health care provider about your current and prior sexual history.

Unfortunately, women also are more at risk of getting STDs than men and young women are at even greater risk. This is due to vaginal friction that occurs during sexual intercourse that may cause small rips or tears in the vaginal walls and make women more susceptible to possible sexually transmitted diseases, infections, or HIV/AIDS.

Just because you do not have any sign of STDs is no reason to forget to practice safe sex! Remember, either you or your partner may be infected with a sexually transmitted disease or infection and be unaware of the fact – this is how STDs continue being transmitted over and over again. Always follow the three rules above for the safest sexual experience possible.

- HIV/AIDS
- PID
- Chlamydia
- Gonorrhea
- Syphilis
- Herpes genital
- Trichomoniasis
- HPV - Human Papillomavirus