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## **Contraception**

Almost one half of all pregnancies are unplanned, which highlights the importance of couples finding contraception that fits their lifestyle. The extremes of reproductive age are where unintended pregnancies often occur. Women are at risk for unplanned pregnancy from their adolescent years until their mid-forties.

There are several broad categories of contraceptive methods; 1) hormonal contraceptives 2) barrier methods 3) intrauterine devices 4) fertility awareness and 5) male contraception.

### **Hormonal Contraception**

Combination hormonal contraception is ideal for women who want a reversible method. Estrogen and progestin are the components used in combination contraception. These are synthetic versions of naturally occurring hormones that prevent ovulation. Decreased menstrual bleeding, less painful cramps, and minimizing premenstrual syndrome symptoms are all added benefits of hormonal contraception. The most widely used form is oral contraceptive pills, but the patch (Orthoevra) and the ring (Nuva Ring) are also available. The advantages of the “patch” and “ring” are less frequent dosing and improved compliance. Injectable contraception (Depo-Provera), the “minipill” or progestin only pill and implantable rods (Implanon) all contain only one hormone. Menstrual bleeding can be more erratic but they are safe methods for women that cannot take estrogen. Prolonged use (greater than 2 years) of Depo-Provera can result in bone loss. These methods do not prevent the spread of sexually transmitted

diseases. Effectiveness for this group of methods can range from 92% to 99%.

## **Fertility Awareness**

Fertility awareness, also known as the “rhythm” method, can be an effective method of birth control, if a woman has regular menstrual cycles and if a couple is willing to abstain during the fertile time of her cycle.

## **Barrier Contraception**

Male condoms and diaphragms are the most common examples of barrier contraception. Male condoms have several advantages including their low cost and their ability to protect against sexually transmitted diseases. A female condom is also available but it is not easy to use and is likely not as effective as the male condom. The majority of condoms are latex and coated with spermicide. Latex allergy or sensitivity is a contraindication to use. Unfortunately, non-latex condoms can protect against pregnancy but not sexually transmitted diseases.

Diaphragms and cervical caps must be fitted by a healthcare provider and used with a spermicidal jelly. Diaphragms must be placed prior to intercourse and left in for 6 to 8 hours after intercourse. Cervical caps are approved in the United States but are not commonly used. Both methods increase the risks of urinary tract infection.

Barrier methods can be very effective when used properly, but their effectiveness is user dependent.

## **Intrauterine Devices (IUDs)**

IUDs are excellent long term contraceptive devices (5 to 10 years). They can be used for shorter periods of time but are not as cost effective. IUDs are small plastic and/or metal devices that are placed inside the uterus during an office procedure. The Mirena

IUD releases a hormone that decreases menstrual flow. The exact mechanism of action of IUDs is unknown. It is speculated that IUDs make the uterus unfavorable to sperm and prevent fertilization. They are well tolerated by most women and fertility returns when the device is removed. There are few women that are unable to use an IUD and they are 99% effective.

## **Male Contraception**

Unfortunately, medications that affect sperm production are not well tolerated and take months to work. This makes them currently impractical for contraceptive use.

Most contraceptive methods are effective when used properly, but contraceptive choices need to be individualized. A woman's age, medical history, ability to comply, and desire for future fertility should be considered before selecting a method. Contraceptive costs are also an important consideration. While permanent sterilization is always an option, it should only be utilized when other options have been exhausted. Women often regret the procedure, especially when performed at a young age. Fortunately, most women can find a effective, safe contraceptive method.