Contraception is an important issue to many families in this country. According to a national survey in which the majority of women were using some form of birth control, 31% of births were “unintended”. It is important to understand that no method of birth control, even when used properly is 100% effective. Choosing from the available types of birth control to fit your lifestyle, as well as proper usage of birth control will optimize contraceptive success.

This article will cover the most popular and newest contraceptives, including pills, patch, vaginal ring, depoprovera shot, intrauterine device, barrier methods, and permanent sterilization. When considering a birth control method, factors to consider are efficacy, convenience, effect on menstrual cycle, and side effects.

Pills

31% of women use oral contraceptives. There are two types: combination estrogen plus progesterone, and progesterone only. Estrogen plus progesterone is by far the most common, and make up the components of most birth control pills. They work by inhibiting ovulation. Most pills on the market now are considered low dose, and all are equally effective if used properly. If taken consistently and correctly, they are extremely effective (99%). Actual pregnancy rates are much higher because of incorrect use. Combination pills have the advantage in most women of regulating flow, reducing flow, and decreasing pain associated with menses. They decrease the risk of ovarian and uterine cancer. Oral contraceptives do not increase the risk of breast cancer. They can also regulate hormone levels, and help prevent recurrence of benign ovarian cysts. Another benefit for some is improvement of acne. There can be side effects, such as nausea, bloating, breast tenderness, headaches, weight gain (not in all pills, and under 5 pounds in most studies), moodiness, decreased libido and break through bleeding. These side effects usually resolve within three months. There is a slight increased risk of blood clots. They need to be taken at a similar time every day to maintain their effectiveness. Certain medications can decrease the effectiveness of birth control pills. Combination estrogen plus progesterone pills should not be given with certain medical conditions, and usage needs to be monitored by a health care provider.

Progesterone only pills are slightly less effective than combination pills. They work by making the cervical mucus and uterine environment harsh to sperm. They are used mostly in breast feeding women, because the estrogen component of the combination pill can decrease the milk supply. Progesterone only pills also can be used in other situations where estrogen should not be given, such as a history of a blood clot, or a smoker who is over the age of 35. Progesterone only pills do not have the advantage of decreasing ovarian cancer, decreasing risk of ovarian cysts, or decreasing acne.

Patch

Currently there is only one contraceptive patch on the market. The patch is applied once a week for three consecutive weeks, and then you get a period on the fourth week. It contains estrogen plus progesterone, and its risk profile, benefits, adverse effects, as well as its effectiveness, are similar to the combination birth control pill. There is a weight criteria, however, of 180 pounds, and those over this weight criteria can have an increased risk of pregnancy. The hormones in the patch are the same as the pill, but they get absorbed through the skin instead of the stomach lining. Since the patch is not ingested, there may be less nausea in some who have this particular side effect with most pills. Some women can develop a rash where the patch was applied.
**Vaginal ring**

The NUVA ring is a contraceptive device similar to the patch, in that hormones are being delivered through an alternative route. It is a small, plastic ring containing estrogen and progesterone, and the hormones get absorbed through the vaginal lining. It is easily inserted, and stays in the vagina for a three week period. It is then easily removed after three weeks, and a period ensues during the fourth week. One cannot feel the ring during daily activities, or during intercourse. It has similar risks, benefits, and side effects as the combination birth control pill. Like the patch, it has the advantage of not being taken by mouth, not having to remember to take something daily, and a constant level of absorption. There is no weight criteria for the NUVA ring.

**Depoprovera injection**

Depoprovera is a progesterone only injection administered four times per year. It is extremely effective (99.7%), and is very easy to use, if you come to your doctors office for the injections as scheduled. It works by making the cervical mucous and uterine environment harsh to sperm. There can be some irregular bleeding, but this usually resolves, and after six months, most women stop menstruating completely. This can be a great benefit to those with heavy or painful periods. Other side effects may include weight gain, possible hair thinning, and possibly thinning of the bones. It is important for women of all ages to take calcium supplementation, especially if using this medication. In reality, true thinning of the bones is highly unlikely, and reversible. All side effects are reversible upon discontinuation of the medication. It is important to realize it can take up to seven months for periods to return to baseline after depoprovera. Since depoprovera does not contain estrogen, it is safe in those conditions where estrogen is not used, such as breast feeding, smoking and age 35 or above, or history of blood clot.

**Intrauterine device**

The intrauterine device (IUD) is another extremely effective form of birth control (99%), which once inserted is convenient and requires minimal effort. The IUD is inserted in the uterus, and this is easily done as an office procedure. It can also be easily removed in the office. Historically, the older IUD’s were associated with a risk of infection. The newer IUD’s, some of which have been around for over 15 years in Europe, carry an extremely low risk of infection. The true risk is if you get gonorrhea or chlamydia while the IUD is in, or at the time of insertion, there is potential for a very serious infection of the pelvis. If you and your partner are mutually monogamous, this risk is practically non-existent and the IUD is quite safe. There are two types of IUD’s most commonly used: the copper T, and the Mirena. The copper T does not contain any hormones. A small amount of copper is released into the uterus, which causes the environment to be harsh to sperm, thus preventing fertilization. It is active for ten years. It can be removed at any time prior to this if one desires a pregnancy. It has the potential to make menses heavier or more painful. The Mirena is a progesterone producing IUD. The progesterone is released into the uterus, and it works to prevent pregnancy in similar fashion as the other progesterone only medications. Since the medication is released in the uterus, and not directly into the blood stream, the side effects are a lot less than the other progesterone only methods. Menses become a lot lighter and usually less painful. The Mirena is active for five years, and can be removed earlier if a pregnancy is desired.

**Permanent sterilization**

Permanent sterilization is the most common and effective form of birth control. While tubal ligation and vasectomy may be reversed, is can be expensive and not always successful. These procedures should therefore be considered permanent and performed only after full understanding of alternatives.

Tubal ligation is usually performed as an out patient, laparoscopic procedure. There are some small surgical risks, and general anesthesia is usually used. The tubes are most commonly clipped or burned. Tubal ligation can also be performed shortly after birth, and involves a small incision beneath the umbilicus. Although tubal ligation is extremely effective (99.5%), if one does get pregnant, there is a significant risk of a pregnancy caught in the tubes (ectopic pregnancy). There is a new outpatient procedure,
called Essure, which involves tubal occlusion that is performed vaginally. Since this is new, data is not available beyond two years after the procedure.

Vasectomy is another extremely effective method of birth control. It can be done in the office, without general anesthesia, and is therefore safer than female sterilization. This procedure is performed by a urologist.

**Barrier**

There are many barrier methods, the most popular being male condoms. Others include female condom, cervical cap, and diaphragm. These have the advantage of being hormone free, and condoms have the important advantage of preventing sexually transmitted diseases. Used properly, condoms are 97% effective. Typical usage reveals effectiveness of approximately 85%. Diaphragm, cervical cap, and female condoms are less effective than male condoms.

**Natural family planning**

Natural family planning is appropriate for some couples. The effectiveness depends on the regularity of your cycle, and how one determines ovulation. The efficacy is less than that of hormonal or permanent methods.

In summary, there are many different types of contraception. It is important to consider efficacy, side effects, and convenience in choosing which method is right for you. Not all methods are appropriate for every given situation. For maximal satisfaction, your health care provider can discuss options and together you can choose which best suits your lifestyle.