

A History of Birth Control Methods

Contemporary studies show that, out of a list of eight reasons for having sex, having a baby is the least frequent motivator for most people (Hill, 1997). This seems to have been true for all people at all times. Ever since the dawn of history, women and men have wanted to be able to decide when and whether to have a child. Contraceptives have been used in one form or another for thousands of years throughout human history and even prehistory. In fact, family planning has always been widely practiced, even in societies dominated by social, political, or religious codes that require people to “be fruitful and multiply” — from the era of Pericles in ancient Athens to that of Pope Benedict XVI, today (Blundell, 1995; Himes, 1963; Pomeroy, 1975; Wills, 2000).

Of course, the methods used before the 20th century were not always as safe or effective as those available today. Centuries ago, Chinese women drank lead and mercury to control fertility, which often resulted in sterility or death (Skuy, 1995). During the Middle Ages in Europe, magicians advised women to wear the testicles of a weasel on their thighs or hang its amputated foot from around their necks (Lieberman, 1973). Other amulets of the time were wreaths of herbs, desiccated cat livers or shards of bones from cats (but only the pure black ones), flax lint tied in a cloth and soaked in menstrual blood, or the anus of a hare. It was also believed that a woman could avoid pregnancy by walking three times around the spot where a pregnant wolf had urinated. In more recent New Brunswick, Canada, women drank a potion of dried beaver testicles brewed in a strong alcohol solution. And, as recently as the 1990s, teens in Australia have used candy bar wrappers as condoms (Skuy, 1995).

Perhaps more surprising than such often bizarre and totally ineffective methods is that modern science has revealed many other ancient methods, especially certain herbal treatments, to be actually

somewhat effective — though not always safe or practical (Riddle, 1992).

Planned Parenthood is very proud of the historical role it continues to play in making safe *and* effective family planning available to women and men around the world — from 1916, when Margaret Sanger opened the first birth control clinic in America; to 1950, when Planned Parenthood underwrote the initial search for a superlative oral contraceptive; to 1965, when Planned Parenthood of Connecticut won the U.S. Supreme Court victory, *Griswold v. Connecticut* (1965), that finally and completely rolled back state and local laws that had outlawed the use of contraception by married couples; to today, when Planned Parenthood continues leading the family planning movement by successfully defending and expanding women’s reproductive rights and options against those who would diminish them (Chesler, 1992).

The following brief histories illustrate only a few of the many ways that women and men throughout history and across cultures attempted to enjoy their sexual relationships with one another while planning their families responsibly.

Behavioral Methods

Many of the earliest methods of family planning were based on sexual behavior and are still used by millions of women and men around the world.

CAUTION: This history of contraceptive practices describes many traditional procedures and substances that have been used for preventing pregnancy but that are not recommended by Planned Parenthood Federation of America. Many of them may cause injury and/or fail to prevent pregnancy. For a complete list of the contraceptive options currently offered at Planned Parenthood health centers, visit www.plannedparenthood.org.

People who have few other alternatives most often use these methods. But some people who have access to the latest advances in contraceptive technology also prefer many of these ancient methods. For thousands of years, abstinence, mutual pleasuring without intercourse — outercourse — withdrawal, predicting fertility, and breast-feeding were used by our ancestors to prevent unintended pregnancy. They still play important roles in family planning today.

Continuous Abstinence

Many Stone-Age people had no idea where babies came from. Some thought that the spirits of children lived in certain fruits, and that pregnancy was caused by eating the fruit. Others held the sun, wind, rain, moon, or stars responsible for causing pregnancy — many considered sea foam particularly potent (Jensen, 1982). Pregnancy was a magical event. Abstinence as a method of family planning never occurred to those who believed that reproduction was magic.

But abstinence, for women in particular, was very important for ancient people who understood the connection between vaginal intercourse and reproduction. After menarche — the time of their first menstrual periods — women in many cultures were expected to be abstinent (Sherfley, 1966). In this way, their future husbands could be sure of the paternity of their children. Throughout history, assuring men of their paternity has been the driving force behind the need for virgin brides and for keeping women out of public life (Fisher, 1992). Ironically, these same forces are the foundations of the sexual double standard and the proliferation of prostitution in most cultures (Bullough & Bullough, 1987)

Abstinence for birth control within marriage was the agenda of the Voluntary Motherhood Movement that was promoted in America during the 1870s by feminists such as Elizabeth Cady Stanton and Susan B. Anthony (D’Emilio & Freedman, 1988). Suffragists believed that husbands as well as wives should just do without sex altogether in order to control the size of their families (Abbott, 2000; D’Emilio & Freedman, 1988; McLaren, 1990).

Abstinence for birth control among married women, however, led to even greater reliance on prostitution by married men, which in turn, led to epidemics of sexually transmitted infections by the turn of the 20th century (Brandt, 1985; Bullough & Bullough, 1987). In response to the proliferation of prostitution and sexually transmitted infection during 1885, the Women’s Temperance Movement, which was dedicated to uplift men to women’s sexual standards, i.e., abstinence, launched a White

Ribbon Campaign, in which men who vowed to be pure sported white ribbons on their lapels (D’Emilio & Freedman, 1988).

One of the major arguments for teen abstinence today is the avoidance of unintended pregnancy. At various times in the past, younger girls were able to have sex play that included vaginal intercourse without risking pregnancy because menarche did not occur until later adolescence (Sanfilippo & Hertweck, 1998). The dramatic fall in the average age of menarche during the last century is one of the reasons for the recent rise in teen pregnancy in the western world (Hrdy, 1999). In the Middle Ages, the average age for menarche was probably around 20. In other words, no matter how passionate young teenagers such as Romeo and Juliet got, it is unlikely that they could have “gotten in trouble” (Aries, 1962).

But by 1840, the average age for menarche had dropped to between 17 and 18. And today the average age that girls have their first period is 12.5! Physiologists believe that earlier menarche is related to better nutrition as well as genetic and environmental factors (Sanfilippo & Hertweck, 1998).

Sexual activity among teens and preteens has occurred throughout history, regardless of social taboo. Modern girls have an equally normal interest in exploring their sexuality, but they are much more likely to “get caught” by having an unintended pregnancy if they have vaginal intercourse without protection.

Outercourse

Augustine of Hippo (350–430 C.E.), an influential bishop of the early Christian church, taught that masturbation and other alternatives to penile-vaginal intercourse — outercourse — were worse sins than fornication, rape, incest, and adultery. He argued that masturbation and other nonreproductive sexual activities were “unnatural” sins because they were contraceptive. Since fornication, rape, incest, and adultery could lead to pregnancy, they were “natural” sins and much less serious than “unnatural” sins (Ranke-Heinemann, 1990).

While Augustine was compelling all the married clergy in his diocese to give up their spouses and live celibately in monasteries (Ranke-Heinemann, 1990), Mallinaga Vatsayayana, in faraway India, was writing the world’s greatest literary celebration of procreative and nonprocreative sex play — the *Kama Sutra*, the most complete encyclopedia of sex practices in the ancient world.

Written in 400 C.E., Vatsyayana’s *Kama Sutra* is a recapitulation of the *Kama Shastras* that describes

“erotic practice” as one of the three aims of life for ancient Hindus in India (Daniélou, 1994). The *Shastras* were already 2,000 years old when Vatsyayana wrote them in Hindi. More than a thousand years later, the *Kama Sutra* would reach across the centuries and have a major impact on us.

The first English translation of the *Kama Sutra* was privately published by Sir Richard Burton and discreetly circulated among the members of the British Kama Sutra Society in 1883. The first popular publication of this manual for intercourse, foreplay, and outercourse, which was published in the U.S. during the 1960s, became the bible for the sexual revolution of that time (Burton, 1991).

In colonial New England, outercourse was encouraged by the custom of “bundling.” Because of the long distances traveled for courtship and the lack of central heating and bedroom space, unmarried couples were “bundled.” They slept together in the same bed, either fully clothed or with a “bundling board” placed in the bed between them. It was assumed that the young people might become physically intimate, but would refrain from vaginal intercourse. However, the dramatic rise in the rates of premarital pregnancy and “illegitimacy” in the middle of the 18th century was blamed on bundling, and the clergy successfully denounced the practice in 1770 (D’Emilio & Freedman, 1988).

Outercourse had a major revival in America during the 1940s and ‘50s. During those years, virginity was considered very important for unmarried women. Outercourse in the back seat of her boyfriend’s sedan at the drive-in movies — they were called “passion pits” by the teenagers of the ‘50s — allowed a young woman to have sex while remaining “technically” a virgin (Kinsey, 1948).

Outercourse took a back seat to vaginal intercourse when the pill became available during the sexual revolution of the ‘60s (Brandt, 1985; Valdiserri, 1988). By the time the ‘80s rolled around, vaginal intercourse was a pretty matter-of-fact event in the heterosexual “dating game” (Coontz, 1992). But as the sexual revolution began to lose some of its charm with the spread of AIDS in the early ‘80s, many women and men began to wonder if they weren’t missing something by passing up the other pleasures of other kinds of sex. Yearning for romance, and aware of the significant risks of HIV and other sexually transmitted infections, women and men of the 21st century are rediscovering the pleasures of courtship, seduction, and outercourse (Cordes, 1988).

Withdrawal

There are two types of withdrawal. *Coitus interruptus* is the Latin name for withdrawal with ejaculation taking place afterwards. *Coitus reservatus* is the Latin name for withdrawal without ejaculation. Both have been used since ancient times for contraception and for other reasons (Bullough & Bullough, 1990).

According to the Book of Genesis, the biblical character Onan incurred God’s wrath by using *coitus interruptus* instead of following local custom and impregnating his sister-in-law after the death of his brother. Instead he “spilled his seed on the ground.” Ever since then, many devout Jews and Christians have considered it a sin to ejaculate without reproductive possibility, whether by withdrawal, masturbation, or other forms of sex. Sin or no sin, by the early 19th century *coitus interruptus* was one of the most popular methods of birth control in the world. It was advocated in the U.S. by Utopian socialist Robert Dale Owen in his *Moral Physiology*, which was published in 1831 and remained in print for more than 40 years (Bullough & Bullough, 1990; D’Emilio & Freedman, 1988).

In ancient China and India, men were encouraged to practice *coitus reservatus* because it was believed that ejaculation caused a great loss of *yang*, the essence of masculinity. “Excessive” ejaculation would diminish men’s vigor and they would become less able to have male descendants. By having vaginal intercourse while not having — “reserving” — ejaculation a man could receive some of his partner’s *yin* — the *essence* of femininity, without sacrificing too much of his *yang* (Bullough & Bullough, 1990). Partners who use Kundalini yoga techniques sexually still employ *coitus reservatus* in order to maintain a balance of *yin* and *yang* (Van Gulik, 1974).

Chinese men who were unable to “reserve” their ejaculations were urged to redirect them. They were taught to firmly press the urethra between the scrotum and the anus with a finger as they ejaculated, in order, as they believed, to drive the semen up the spine, through all the *chakras* into the brain. (This technique, in fact, forces the semen into the bladder, from which it is excreted in urine.) This form of *coitus reservatus* is called *coitus obstructus* (Bullough & Bullough, 1990).

Pleasure, especially sexual pleasure, was considered sinful by many early Christians — even when associated with reproductive sex. However, it was also considered a man’s duty to have vaginal intercourse with his wife to protect her health — in the Dark Ages it was believed that women would weaken and become hysterical if they didn’t have

sexual intercourse regularly (Maines, 1999). Many theologians taught that, since a man's pleasure was in ejaculation, having sex without ejaculation was not sinful. Hence *coitus reservatus* was the only sinless sex a Christian man could have (Ranke-Heinemann, 1990).

Coitus reservatus was also the preferred method of nonprocreative sex play at Oneida, the utopian religious community established by John Humphrey Noyes at the turn of the century in upstate New York (Bullough & Bullough, 1990). Originally a social experiment in which members shared possessions as well as sex partners, the commune became a successful profit-making corporation famous for producing Oneida® silverware (D'Emilio & Freedman, 1988; Harkavy, 1991).

Fertility Awareness-Based Methods

People have tried very hard to understand women's fertility and human reproduction since the first families were formed. It's not entirely surprising that only a few figured out what exactly sex had to do with pregnancy — scientists didn't identify sperm until 1678 (Bullough & Bullough, 1990). It took another 100 years to figure out what it did! Mammal eggs weren't identified until 1827. The timing of ovulation in women was anyone's guess until the 1930s, and it wasn't until 1995 that physiologists could demonstrate when fertilization of the egg was most likely! (Wilcox, 1995).

In ancient India, vaginal intercourse was encouraged during menstruation because it was believed that menstrual blood was women's semen — babies were formed when it combined with men's semen (Burton & Arbuthnot, 1991). Most other cultures, however, prohibited intercourse during menstruation. For instance, Jewish Talmudic laws of Niddah, forbid intercourse during menstruation and for one week after — bringing husband and wife together as she approaches her peak fertility (Golub, 1992).

Periodic abstinence in Medieval Europe was obligatory for religious reasons, but it may have had a significant impact on the pregnancy rate. By 800 C.E., Christian women and men were required to abstain from sexual activity for a minimum of five months each year — during menstruation (about 60 days), the 40 days of Lent, the 20 days of Advent, 20 days of Pentecost, all feast days, all Sundays, and three or more days before receiving communion. Intercourse was also forbidden during pregnancy (Ranke-Heinemann, 1990).

The penance for breaking the rules included a diet of only bread and water for from four to 40 days depending on the infraction. These rules were kept for so many centuries that it is still traditional for

great numbers of people to take communion only at the great feasts of Christmas, Easter, and Pentecost — in the olden days, everyone had to fast and abstain from sex at such times anyway because communion was mandatory (Ranke-Heinemann, 1990).

At the beginning of the 21st century, an effective new calendar method and a new mucus method became available in the U.S. Women with regular cycles never shorter than 26 days and never longer than 32 days can use CycleBeads® to identify their safe and unsafe days. Women who have been trained to recognize their cervical secretions and use the Two-Day Method, which enables them to recognize safe days by asking two questions: Do I have secretions today? Did I have secretions yesterday? A woman who can answer "no" to both questions can consider it a safe day for unprotected sex (Knowles, 2010).

Africans and Native-American women of the 17th and 18th centuries were among the first to actually understand their fertility cycles well enough to plan their families. They observed that monitoring the quality of their cervical mucus could help them decide to avoid or plan a pregnancy (Shivandan, 1979). It wasn't until the 1960s that western science caught up, when Australian Drs. John and Evelyn Billings provided the research to promote the cervical mucus method as an improvement on the calendar method. It is now a key element of the sympto-thermal method, which combines the use of the mucus method, the basal body temperature method, and the calendar method (Bullough & Bullough, 1990).

Lactational Amenorrhea Method

Complete breast-feeding can postpone ovulation and menstruation — lactational amenorrhea (Hatcher et al., 1998). Women around the world, especially the poor, have used extended breast-feeding to space their pregnancies since the beginning of history. From ancient Athens and Rome to the 15th century and on into the end of the 19th century, however, middle-class and aristocratic urban women in Europe did not breast-feed or bottle-feed their children — they hired other women or depended on slaves as wet nurses, which explains why more affluent women at various times in history bore more children than poor women (McLaren, 1990).

Because nursing interfered with their lifestyles, and because clean cow's milk was hard to come by in the city, French and Tuscan infants, for example, were shipped off to country farms to be nursed. Children might not see their parents until they were between two and four years old — if they survived (Chartier, et al., 1989; McLaren 1990).

In the 18th century, English women were successfully urged to nurse their own children in order to decrease the rate of infant mortality and reduce the number of unwanted pregnancies. In other parts of Europe, however, wet nurses often were nursing children of their own as well as a number of other women's infants and toddlers. They were often forced to nourish their own children with cow's milk. In fact, it became a proof of poverty for a country person to have been raised on cow's milk. It was a sure sign that the person's mother was forced by poverty to be a wet nurse and had to withhold her milk from her own children. Frequently there was not enough milk to go around, and many children suffered from malnutrition. So great were the numbers of infant deaths in France that the tradition became a scandal. By the end of the 19th century, French wet nurses lived in their employers' homes instead of their own homes in the country (Chartier et al., 1989).

Wet nurses were also common in the American South during the same period. Usually, the women who served as wet nurses in the U.S. had little choice — they were African-American slaves (Yalom, 1998) who may have welcomed extended breast-feeding as a way to avoid breeding for plantation owners and slave traders.

Women who used wet nurses knew that if they didn't breast-feed, they were more likely to become pregnant. But they took so much pleasure in the rare personal freedom from having to tend to children that they enjoyed between pregnancies, that many believed it was a worthwhile trade off (Chartier et al., 1989).

Barrier Methods

The Condom

The earliest known illustration of a man using a condom during sexual intercourse is painted on the wall of a cave in France. It is 12,000–15,000 years old (Parisot, 1987). Another ancient illustration of a condom was found in Egypt, and it is more than 3,000 years old. It is difficult to judge from the drawing, however, what the ancient Egyptian wearing the condom had in mind. He may have worn it for sexual or ritual reasons — or both (Parisot, 1985).

Historians disagree about how condoms got their name. Some say a "Dr. Condom" supplied an 18th-century king with animal-tissue sheaths to keep him from fathering illegitimate children and getting diseases from prostitutes (Himes, 1963; Valdiserri, 1988). Others claim the word comes from a "Dr. Condon" or a "Colonel Cundum." It may be more

likely that the word derives from the Latin *condon*, meaning "receptacle" (Himes, 1963; Parisot, 1985).

The oldest condoms were found in the foundations of Dudley Castle in England. They were made of animal gut and dated back to 1640 (Parisot, 1985). They were probably used to reduce the risk of contracting sexually transmitted infections during the war between the forces of Oliver Cromwell and soldiers loyal to King Charles I.

In the 18th century, the famous womanizer Casanova wore condoms made of linen (Grimes, 2000). Rubber condoms were mass-produced after 1843, when Charles Goodyear patented the vulcanization of rubber, which he invented five years before (Chesler, 1992; Valdiserri, 1988). Condoms made of sheep's intestines are still available. They are now disposable and should only be used once.

The American Social Hygiene Association fought hard to prohibit condom use in the early part of this century. Social hygienists believed that anyone who risked getting "venereal" diseases should suffer the consequences, including American doughboys — U.S. soldiers who fought in World War I. The American Expeditionary Forces, as our army was called, were denied the use of condoms, so it is not surprising that by the end of the war our troops had very high rates of sexually transmitted infections. Like most people throughout history, our "boys" were just unable to "just say 'no'" (Brandt, 1985).

The Secretary of the Navy at that time was only one of many military leaders who believed that condom use and other infection prevention methods were immoral and "unchristian." It was a young *Assistant Secretary of the Navy*, Franklin Delano Roosevelt, who, when his boss was away from the office, decided to help sailors treat infections that they could have otherwise prevented with condoms. FDR ordered the distribution of prophylactic kits that contained chemicals to wash and insert into the penis to treat gonorrhea and syphilis (Brandt, 1985).

One of the challenges that Margaret Sanger faced as she fought for women's right to use birth control was the double standard regarding condom use. Doctors were allowed to "prescribe" condoms to protect men from syphilis and gonorrhea when they had premarital or extramarital sexual intercourse. The men could not, however, get condoms to protect their wives from unintended pregnancy (Brandt, 1985; Valdiserri, 1988).

By 1924, the condom was the most commonly prescribed method of birth control (Tone, 2001), and by World War II, military leaders had a more realistic attitude about condoms. Concerned that "our boys"

would bring home diseases and infect their wives, they aggressively promoted the use of condoms. Government training films urged soldiers "Don't forget — put it on before you put it in."

The sexual revolution of the '60s almost put an end to condom use. "Good girls" were willing sex partners, so fewer men turned to professional sex workers, the most prevalent sexually transmitted infections — gonorrhea and syphilis — were easily treated, and the pill and IUD provided the most effective reversible contraception the world had seen (Valdiserri, 1988).

When the virus that can cause AIDS was identified, it became clear that condom use and other methods of safer sex could stem the epidemic. Many public health professionals believe that local, state, and federal governments have ignored or denied the severity of the problem, and have behaved a lot like the social hygienists of the World War I generation (Brandt, 1985).

Until 2010, about \$100 million in federal funds was spent annually for abstinence-only sexuality education designed to discourage unmarried young people, regardless of sexual orientation, from having sex. None of this money was allowed to be used for any program that talked about the effectiveness of condoms to reduce the chances of infection or unintended pregnancy among those young people who are already sexually active. Meanwhile, 50 percent of all HIV infections occur among people under the age of 25, and 63 percent of infections among those between the ages of 13 and 19 are among women (NIAIAD 2001).

Female Condom and Vaginal Sponge

Reality® — the female condom developed by the Wisconsin Pharmacal Company — became available in drugstores in the U.S. in 1994, but it was not the first vaginal contraceptive designed to catch semen to prevent it from causing pregnancy (Grady, 1998).

Throughout history women have used various substances to block the way to the uterus and absorb semen. Vegetable seedpods were used in South Africa, plugs of grass and crushed roots were used in other parts of Africa, wads of seaweed, moss, and bamboo were used in Japan, China, and the South Sea Islands, and empty halves of pomegranates were used in ancient Greece (London, 1998; Riddle, 1992; Tone, 2001).

Sponges were perhaps the most commonly used substances to block and absorb semen. The oldest reference to using sponges for contraception is from the Talmud (Bullough & Bullough, 1990). The

Talmud recommends that a sponge soaked in vinegar — *mokh* — be used if

- a girl was too young to survive a pregnancy
- a woman was pregnant — it was believed that semen could cause a miscarriage
- a woman was nursing — if she became pregnant, she would have to wean her child prematurely (Bullough & Bullough, 1990).

During the 17th century, the French used the method of wetting a sponge with brandy to weaken the sperm (Keown, 1977). In the early 20th century, British birth control crusader Marie Stopes prescribed sponges moistened with olive oil for 2,000 of her indigent patients — she recorded no unintended pregnancies in the follow-up visits (London, 1998).

A contraceptive sponge was introduced to the American market in 1983 and quickly became one of the most popular over-the-counter barrier methods. The Today® Sponge was designed to block, more than absorb, semen. It also contained a spermicide that could immobilize sperm. The manufacturer — Whitehall Robins — voluntarily ceased production in 1995. One of the reasons the company cited was that meeting increasingly stringent U.S. Food and Drug Administration (FDA) guidelines for its manufacture would be too costly (Leary, 1999). On April 22, 2005, the FDA approved the return of the Today Sponge to the U.S. market (Allendale Pharmaceuticals, 2005).

Contraceptive Foams, Creams, Jellies, Film, and Suppositories

As far back as 1850 B.C.E., in ancient Egypt, recipes for barrier methods of birth control were buried with the dead to prevent unintended pregnancy in the afterlife (Himes, 1963; Riddle, 1992). The "spermicides" they advised included honey, sodium carbonate, and crocodile dung (Suitters, 1967).

By 1550 B.C.E., Egyptian women used cotton-lint tampons soaked in the fermented juice of acacia plants to prevent pregnancy (Himes, 1963).

In the first half of the sixth century, the Greek physician Aetios suggested that women smear their cervixes with cedar rosin combined with myrtle, lead, alum, or wine. He also suggested that their partners coat their penises with alum, pomegranate, gallnut, or vinegar (Himes, 1963).

Aristotle suggested lavaging the vagina with oil of cedar, ointment of lead, or frankincense mixed with olive oil (Suitters, 1967). In the first century C.E., Dioscorides recommended vaginal suppositories — "nessaries" — of pennywort or sicklewort mixed with

honey. His book, *De Materia Medica*, was a standard resource for contraceptive information until the 16th century (Himes, 1963).

In first century India, women used rock salt soaked in oil for birth control. During the first century C.E., Indian women used honey, ghee (clarified butter), and palasha tree seeds (Himes, 1963). They also used elephant dung and water. Arab women in the 10th and 11th century sweetened the mixture with honey (London, 1998).

Cocoa butter suppositories were sold in London from 1885 to 1960 (Chesler, 1992). In the 1970s, some women in England inserted vitamin C tablets into their vaginas as contraceptive suppositories — but some experienced severe burning of the cervix (Wilson, 1973).

Diaphragms and Cervical Caps

Giovanni Giacomo Casanova takes credit in his autobiography for inventing a primitive version of the diaphragm/cervical cap (Suitters, 1967). He placed the partly squeezed halves of lemons over his lovers' cervixes. Casanova was exaggerating his own inventiveness. Similar devices had been used for centuries around the world. Asian sex workers applied oiled paper discs to their cervixes. The women of Easter Island used algae and seaweed (Himes, 1963).

Sponge, tissue paper, beeswax, rubber, wool, pepper, seeds, silver, tree roots, rock salt, fruits, vegetables, and even balls of opium have all been used to cover the cervix in an attempt to prevent unintended pregnancy (Himes, 1963; London, 1998; Skuy, 1995).

In 1838, German gynecologist Friedrich Wilde created rubber "pessaries" for individual patients with custom-made molds. Wilde's pessaries resembled today's cervical caps. He used modern materials to imitate the traditional German custom of applying disks of melted and molded beeswax to the cervix to prevent conception. Primitive rubber pessaries were made by Connecticut inventor Charles Goodyear in the 1850s (Himes, 1963). Pharmacies sold them to married women, supposedly to support the uterus or hold medication in place (Chesler, 1992).

By 1864, the British medical association was able to list 123 kinds of pessaries being used throughout the empire (Asbell, 1995). In America, sponges enclosed in silk nets with drawstrings attached were commonly used and advertised in newspapers and magazines (London, 1998). But the Comstock laws that were enacted in the 1870s suppressed the

dissemination of contraceptive devices and information in the U.S. (Chesler, 1992).

The diaphragm played a special role in Margaret Sanger's effort to rescue America from the Comstock laws. During a trip to Holland in 1915, she learned about the use of snugly fitting spring-loaded diaphragms that were developed in Germany during the 1880s. In 1916, she was arrested and sent to jail for telling women about them. Her month in jail only strengthened her resolve to teach women how to use diaphragms — she even taught diaphragm use to the women she was with in jail (Chesler, 1992).

Sanger had to find a way around the Comstock laws, which prohibited the transport of birth control devices or information through the mail. Her solution, clever — as well as illegal — also involved the diaphragm (Chesler, 1992).

Sanger's second husband, Noah Slee, owned the company that manufactured 3-IN-ONE[®] Oil, a lubricant for metal parts. Slee imported diaphragms from manufacturers in Germany and Holland to his factory in Montreal. He had the diaphragms packed in 3-IN-ONE cartons and shipped to New York (Chesler, 1992).

Slee also solved Sanger's difficulty obtaining contraceptive jelly to use with the diaphragm. He got the German formula and manufactured the jelly — illegally — at his plant in Rahway, New Jersey. In 1925, he put up the money for founding the Holland-Rantos Company, which manufactured the first American diaphragms, and ended the need for contraband versions (Chesler, 1992).

Sanger met a Japanese physician at an international conference on birth control and got him to mail her a package of diaphragms in 1932, but the package was confiscated by U.S. Customs officers. Undeterred, Sanger decided to test the Comstock laws that forbade distribution of contraceptives and contraceptive information through the mail (Chesler, 1992).

She arranged to have another package of diaphragms mailed from Japan to Dr. Hannah Meyer Stone, a New York City physician who supported Sanger's crusade for reproductive rights. This package was also seized by Customs (Chesler, 1992).

In 1936, Manhattan Judge Augustus Hand, writing for the U.S. Court of Appeals of the Second Circuit, ruled that the package could be delivered. The case, *United States v. One Package* — said package "containing 120 rubber pessaries, more or

less, being articles to prevent conception” — was a watershed in U.S. birth control history. It severely weakened the federal Comstock law that had prevented dissemination of contraceptive information and supplies since 1873 (Chesler, 1992).

By 1941, most doctors recommended the diaphragm as the most effective method of contraception (Tone, 2001). But with the invention of the pill and the increased popularity of the IUD, the diaphragm and cervical cap fell out of favor during the 1960s. Diaphragms continued to be available but U.S. companies stopped producing cervical caps. When the early high-estrogen birth control pills and certain IUDs were found to cause medical problems, American women increasingly returned to using simple barrier methods that didn't affect their hormones or menstrual cycles (Bullough & Bullough, 1990). Diaphragms became quite popular again, but the cervical cap had disappeared from the American scene (Chalker, 1987). The Food and Drug Administration approved the Prentif Cavity-Rim Cervical Cap for use in this country in May 23, 1988 — nearly 60 years after it was introduced in the United Kingdom. Strenuous efforts by clinicians affiliated with feminist health centers had brought the cap back to America (Bullough & Bullough, 1990). But by 2002, the Prentif cervical cap was displaced in the marketplace by FemCap® (Cates & Stewart, 2004). Today, fewer than 0.01 percent of U.S. women rely on diaphragms and caps for contraception (CDC, 2010).

Hormonal Methods

The Pill

According to ancient Greek myth, Persephone, the goddess of spring, refused to eat anything but pomegranate seeds after she was stolen from her mother, Demeter, the goddess of agriculture; raped by the god of death; and kidnapped to the underworld. Medical historians now know why she only ate pomegranate seeds — pomegranate was one of the first oral contraceptives. The myth of Persephone's abduction explained the cause of the world's first winter — it was the time the goddess withheld her fertility while confined in the underworld. All the winters that have followed are echoes of her tribulations, her mother's search for her, and her refusal to be pregnant when she didn't want to be (Riddle, 1997).

Greek women celebrated the ultimate reunion of this mother and daughter for centuries. All men were banned from these festivals, called Thesmophoria. Four plants were central to the secret rituals that occurred during the festival. They were pomegranate, pennyroyal, pine, and vitex, also

known as “chaste-tree.” All of these plants are now known to have contraceptive benefits, as well as other effects (Hawley and Levick, 1995). (Pennyroyal, for example, is highly toxic, except in quite weak infusions.) It seems that the women gathered to share the contraceptive secrets that Persephone learned from her mother (Riddle, 1997).

In the seventh century B.C.E, a brisk contraceptive trade developed in the part of North Africa that is now known as Libya. The flowering plant silphium grew there, and only there. Silphium was such a reliable contraceptive that it fetched an exorbitant price in shipping ports all over the ancient world. Despite its staggering price, the demand for silphium was inexhaustible. By the first century C.E., the plant was very scarce from over-harvesting, and by the fourth century, it was extinct (Riddle, 1997).

Women all over the world used herbs for family planning. Surprisingly, one of the most comprehensive recipe books for pre- and post-coital contraception was written by a man who became pope. Peter of Spain, who offered advice on birth control and how to provoke menstruation in his immensely popular *Thesaurus Pauperum* (*Treasure of the Poor*), was elected Pope John XXI in 1276 (Riddle, 1992). Many of Peter's recipes have been found surprisingly effective by contemporary research, and it is believed that women in antiquity had more control over their reproduction than previously believed (Riddle, 1994).

Hundreds of generations of women in Africa, Asia, and the Americas used various fruits and plants for family planning. Researchers are often surprised to discover how efficacious many folk contraceptives are at protecting against unintended pregnancy. Women in tropical India and Sri Lanka, for example, eat a papaya a day when they want to prevent pregnancy. It sounded improbable to scientists in the West, but in 1993, an English research team was astonished to find that an enzyme, papain, in the fruit interacts with the hormone progesterone to prevent pregnancy (Brothers, 1994).

Contraceptive knowledge began to vanish in Europe after the 13th century. Women who had the knowledge became more and more fearful about sharing it because to offer contraceptive information during these times was to risk being accused of witchcraft or heresy — the punishments for which included torture and death (Riddle, 1994).

Women in colonial America were offered contraceptive information by their Native American neighbors and by their African-Caribbean slaves (Brodie, 1994). African-Americans held in slavery became extremely adroit in the use of contraception,

which was important to them as a way to prevent the heartbreak of bearing children to work or be sold for the profit of slave owners (Tone, 2001). It is interesting that some of their formulas, still used in the rural south, can also be found in Peter of Spain's 750-year-old recipe book (Riddle, 1992).

By the beginning of the 20th century, the idea of oral contraception in conventional medicine had died. It was not to be revived until the century was half over. The woman who made it happen was Margaret Sanger (Riddle, 1992).

In the 1940s and 1950s, Margaret Sanger closely followed scientific research on birth control and personally funded some of it, while Planned Parenthood Federation of America made support for new birth control technology a major focus of its advocacy efforts. The turning point came, though, when a remarkable woman named Katharine Dexter McCormick (1875–1967) threw her financial support behind research to produce an oral contraceptive (Chesler, 1992).

McCormick, heir to the International Harvester fortune, was one of the first women graduates of the Massachusetts Institute of Technology, an ardent supporter of women's rights, and a longtime friend of Sanger. In 1950, following the death of her husband, Stanley, McCormick wrote to Sanger to ask how she could use her inheritance to contribute to contraceptive research (Chesler, 1992).

In 1953, Sanger took McCormick to visit the Worcester Foundation for Experimental Biology in Massachusetts, where research scientists Gregory Pincus and Min Chueh Chang were conducting experiments Sanger considered promising — at her behest, they were trying to produce an oral contraceptive based on synthetic progesterone. McCormick first pledged \$10,000 toward the research. Soon after, she began contributing \$150,00 to \$180,000 a year, funneling a portion of the money through the Planned Parenthood research grant program. The total of McCormick's gifts to the research was \$2,000,000 (Chesler, 1992; Grimes, 2000).

McCormick also funded the first clinical trials of the pill, which were conducted by Dr. John Rock, an eminent Catholic gynecologist, with patients in his private practice. Rock, who came to be regarded as a co-developer of the pill, worked with Planned Parenthood staff on a closely reasoned book, *The Time Has Come: A Catholic Doctor's Proposals to End the Battle over Birth Control*, in which he argued that the Catholic church should accept the oral contraceptive as a natural extension of the "rhythm method" (Chesler, 1992).

In 1956, the journal *Science* announced the success of Rock's clinical trials. Four years later, the FDA approved distribution of the Enovid contraceptive pill, manufactured by G.D. Searle and Company, a firm that had also supported Gregory Pincus's research for many years (Chesler, 1992; Grimes, 2000).

The efforts of Sanger and McCormick would have been for naught, however, if it hadn't been for the medical folk traditions of the descendants of the Aztecs. The basic research for the pill became possible when Russell Marker discovered that generations of Mexican women had been eating a certain wild yam — the Barbasco root, also called *cabeza de negro* — for contraception (Chesler, 1992). It was from these yams that Marker was able to extract the progestin that Gregory Pincus combined with estrogen to formulate the first birth control pill (Grimes, 2000).

The first pill was far from perfect — but its effectiveness, simplicity, and ease of use extended to millions of women an unheard-of control over reproduction, for the first time allowing them to truly separate vaginal intercourse from procreation (Bullough & Bullough, 1990). Margaret Sanger's pill made the sexual liberation movement of the '60s a lot less risky than the one that occurred after World War I. More than 20 years ago, the FDA proclaimed that "... more studies have been done on the pill to look for serious side effects than have been done on any other medicine in history" (Asbell, 1995). That scientific scrutiny has continued to this day. The pill of today, as well as other more recent combined hormone methods — the patch and the ring— offer safety and effectiveness with greatly decreased doses of hormone (Knowles & Ringel, 1998).

DMPA — Depot Medroxyprogesterone Acetate

Three years after the Pill became available, family planning researchers were developing ways to make it possible for women to benefit from an equally effective hormonal method without taking a pill every day (Vecchio, 1993). Although it was known that DMPA could suppress ovulation, its use was limited to the treatment of advanced endometriosis and cancer of the kidney, as well as to diminish the sex drive in men who committed sex crimes (Money & Lamacz, 1989).

Although DMPA was first submitted for FDA approval for contraceptive use in 1967, and became available worldwide in 1971 (Connell, 1993), use in the U.S. was postponed for 25 years. In 1978, despite favorable recommendations by its Obstetrics and Gynecology Advisory Panel, the FDA again denied approval of the use of DMPA as a

contraceptive in the U.S. The FDA questioned the public's need for the drug and cited concerns about the drug's safety, particularly the results of early studies that showed an increased risk of breast cancer and endometrial cancer in testing with certain animals that had been given the drug (Vecchio, 1993).

One of the early studies using rhesus monkeys found a possible increase in the risk of endometrial cancer (Connell, 1993; Vecchio, 1993). These tests were ultimately discredited as not being predictive of cancer risk in humans (Vecchio, 1993).

The study that caused the greatest scare about DMPA found an increased incidence of breast cancer in beagle dogs that were given doses of DMPA — 25 times higher than human doses. The results of this study prevented FDA approval of DMPA for contraception for a quarter of a century (Vecchio, 1993). It turns out, however, that beagles cannot be used to accurately predict the risk of cancer in humans because beagles are *prone* to breast cancer (Connell, 1993). And in 1988, the FDA Advisory Committee recommended that contraceptive studies on beagles be discontinued (Vecchio, 1993).

A large international study by the World Health Organization (WHO) concluded that DMPA offered no additional risk for breast cancer to women in general. Although there was a slightly increased rate of breast cancer for women under 35, scientists have speculated that the apparent increase was because the *detection* of breast cancer in the women studied was more likely than in the comparison groups (Skegg et al., 1995; World Health Organization, 1991).

Studies also found that women who used DMPA appeared to be at no increased risk of cancer of the cervix, ovary, or liver, and in fact the contraceptive is now associated with a *reduced* risk of endometrial cancer (Connell, 1993).

More than 30 million women worldwide have used DMPA since it was introduced in 1969. More than 12 million now use the contraceptive in more than 90 countries, including Britain, France, Germany, Sweden, Thailand, New Zealand, and Indonesia. In 1992, the FDA approved DMPA — Depo-Provera[®] — as a long-acting, injectable progestational contraceptive for use in the U.S (Grimes, 2000).

The Implant

During the 1950s, in the early days of hormonal contraceptive research, pellets of progesterone were inserted under the skin of rabbits to prevent them from conceiving (Asbell, 1995). Forty years later, a

variation on those experiments became an approved form of birth control in the U.S. — Norplant. But just as with DMPA, American women had to wait longer than their sisters around the world to have access to this very effective method (Asbell, 1995).

Developed by the Population Council and distributed in the U.S. by Wyeth-Ayerst Laboratories, Norplant was approved by the WHO in 1984, after nearly 20 years of research and clinical trials. WHO heralded Norplant as an “effective and reversible long-term method of fertility regulation — particularly advantageous to women who wish an extended period of contraceptive protection” (Population Council, 1990).

Six years later, the FDA approved Norplant for use in the U.S. By then it had been used by a half-million women in 17 countries where it had received regulatory approval (Grimes, 2000). By July 1994, nearly a million women in the United States had chosen to use Norplant implants (Lewin, 1994).

The rapid expansion in the use of Norplant in the U.S. proved to have some drawbacks. Many women complained that they hadn't been warned about the side effects that they experienced. Others charged that removal of their capsules was clumsy, took too long, and caused pain and scarring because their clinicians had not been properly trained in removal techniques (Lewin, 1994). Because of this, many women took legal action and filed claims. By the middle of 1995, more than 200 lawsuits, including 50 class-action suits, were filed against the manufacturer.

In August 1995, an FDA reanalysis found no basis for questioning the safety and effectiveness of Norplant when the product is used as directed in the labeling (Grimes, 2000). By 1999, more than 14,000 of the 36,000 implant claims had been dismissed (Grimes, 2000). Nevertheless, the manufacturer withdrew Norplant from the market in 2002 (Johnson, 2002).

In July 2006, the FDA approved a single-rod implant — Implanon[™] — that continually releases a steady dose of the progestin, etonogestrel, and which is effective for up to three years (Organon USA, 2006).

Emergency Contraception

Using contraception after vaginal intercourse is an ancient tradition. There have been two basic post-coital methods — one has proven much less effective than the other.

The less effective post-coital method is to remove ejaculate from the vagina before fertilization can take place. This has been accomplished in several

different ways. The woman could use her finger or fingers to direct urine to flush out the vagina (Himes, 1963). In another method, the woman would get up abruptly, sneeze and blow her nose several times, then shout loudly and jump backwards several times (Skuy, 1995). Ancient Hebrew women were said to be able to expel ejaculate from their vaginas with forceful contractions of their vaginal muscles. Women today in certain parts of Australia and the Trobriand Islands of the South Pacific practice contraception in the same way (Himes, 1963).

A much less exotic method for attempting to remove ejaculate from the vagina has been douching. A Massachusetts doctor, Charles Knowlton, popularized this ineffective method in the U.S. He published a description of douching in 1832, in the first of 10 editions of *The Fruits of Philosophy; or the Private Companion of Young Married People*. Knowlton suggested using a syringe filled with a solution of the astringent alum and infusions of white oak or hemlock bark, green tea, or raspberry leaf. He claimed that his recipe would dislodge most of the semen and “destroy the fecundating property of any portion of semen that may remain” (Bullough & Bullough, 1990; Himes, 1963).

Dr. Frederick Hollick touted the benefits of douching in *The Marriage Guide*, which was printed in 300 editions between 1850 and 1875. Dr. Edward Bliss Foote also celebrated douching in the 250,000 copies of his *Medical Common Sense*, which were sold between 1858 and 1900 (Harkavy, 1991).

In the early 20th century, manufacturers of Lysol[®] and other equally harsh disinfectants and detergents advertised their products for use as contraceptive “feminine hygiene” douches, which were used by millions of American women (Tone, 2001).

Because they had fewer pregnancies than their mothers and grandmothers, many women at the turn of the century were convinced that douching was responsible for limiting the number of children they bore. In reality, one of the major reasons for decreased births during this time was a silent epidemic of infertility caused by pelvic inflammatory disease (Brandt, 1985).

Because “marriageable” women had to be virgins, American men at the end of the 19th century commonly turned to brothels and “red light districts” for sexual pleasure with “unmarriageable” women. So many new husbands unknowingly brought sexually transmitted infections to their brides on their wedding nights that the birthrate plummeted, especially among the middle class. It also may be that all the douching that was practiced during this period made women much more susceptible to the

infections that their husbands brought home. Despite these facts, long-held myths about the benefits of douching survive today (Brandt, 1985).

The more effective of the two post-coital methods of contraception is to induce menstruation before fertilization or implantation can take place. Many herbal recipes to induce menstruation were taught by Hippocrates, “the father of medicine,” who lived in ancient Athens 460–377 B.C.E. He had gathered his recipes from women whose traditions of medicine were already thousands of years old.

Centuries later, some of these methods for inducing menstruation for contraception were published by Peter of Spain before he was made Pope John XXI in 1276. Despite their toxicity, herbs are still used worldwide in attempts to induce menstruation (Riddle, 1992).

Birth control pills were first prescribed for emergency contraception in the early 1970s by Dr. Albert Yuzpe, a Canadian obstetrician/gynecologist. Yuzpe’s adaptation of the Pill for post-coital contraception has been used by millions of women throughout the world to avoid unintended pregnancy (FDA, 1997).

In September 1998, the FDA approved the marketing of America’s first dedicated emergency contraception (EC) product, The Preven[®] Emergency Contraception Kit. No longer on the market, the Preven kit consisted of Yuzpe regimen EC, a pregnancy test, and instructions. The launch of Preven represented the first commercial EC advertising targeted to American women. On July 28, 1999, the FDA approved the first dedicated progestin-only EC in the U.S. — Plan B[®]. The two brand names currently available are Plan B One Step[®] or Next Choice[®]. On August 13, 2010, the U.S. Food and Drug Administration (FDA) approved ulipristal acetate for emergency contraception. It became available to U. S. women only by prescription on December 1, 2010. The registered trademark in the US is “ella[®].” Like other EC pills, both progestin-only methods and ulipristal acetate work by delaying ovulation or by preventing fertilization (Croxatto et al., 2003; Fine et al, 2010; Glasier et al., 2010; Grimes, 1999).

The IUD (Intrauterine Device)

Legend has it that Arab camel drivers inspired the modern IUD. According to the story, tiny stones were inserted into the uterus of each female camel to prevent pregnancy during long caravan journeys across the desert (Bullough & Bullough, 1990). The story was a tall tale told to entertain delegates at a scientific conference on family planning, but it was

repeated so many times that many people have assumed it is true (Thomsen, 1988).

During the ninth century, a Persian physician recommended inserting into the cervix paper wound tightly into the shape of a probe, tied with a string and smeared with ginger water (Manisoff, 1973). Also, during certain rituals, the Maori people of New Zealand put small pebbles into women's vaginas to make them "sterile as stones" (Himes, 1963). Similarly, Casanova, who claimed to have invented almost everything that has to do with sex, soaked a small gold ball in an alkaline solution and inserted it in his lover's vagina (Suitters, 1967).

Devices to be inserted into the uterus were invented in Germany in 1909. They were made of silkworm gut. They worked, but often led to infections, which was a very serious side effect before penicillin became widely available in 1945, because such infections invariably caused death. During the 1920s and 1930s, contraceptive researchers in Germany, China, and Japan created ring-shaped devices of gut, gold, and silver, but infection still remained a serious problem (Grimes, 2000).

In 1926, a German physician, Ernst Grafenberg, produced the G ring, an IUD in a ring shape that was widely distributed and successfully used (Grimes, 2000). His major innovations were to eliminate the string, which had wicked bacteria into the uterus and to use strict antiseptic techniques for insertion (Suitters, 1967). (Later in his career as a sexologist, Grafenberg identified the G spot — a particularly sensitive area of sexual pleasure in the vaginas of some women (Ladas et al., 1982).)

Jack Lippes, a gynecologist from Buffalo, New York, invented the Lippes Loop in the early '60s. It became available to American women in 1964, two years after the pill revolutionized family planning efforts. The Lippes Loop was an instantaneous success, and is still used worldwide today — except in the U.S. (Bullough & Bullough, 1990; Grimes, 2000; Hutchings, 1985)

The IUD fell into disrepute in the late '70s because a faulty version found its way to the market and was used by millions of women, many of whom were injured while using it. The Dalkon Shield®, was a product of the A. H. Robins Company of Richmond, Virginia. Shaped like a shield, the IUD had extensions on each side that were meant to prevent expulsion. Unfortunately, they also made insertion and removal quite painful (Mintz, 1985). Worse still, the string on the Shield was made of a porous material that wicked bacteria into the uterus. The result was many cases of severe pelvic infection (Grant, 1992).

An unacceptable number of women also became pregnant while using the Shield. Some miscarried, often in the third-to-sixth month of pregnancy. Very severe infections occurred, and some women who were undiagnosed or misdiagnosed died (Mintz, 1985; Grant, 1992).

Investigations revealed that little safety research had been done either before the device was released to the market or after its dangers began to emerge. At that time, the federal government did not strictly regulate such devices. If today's federal regulations for such devices had been in place, the company's inadequate research and the dangers of the Shield would have been exposed much earlier (Bullough & Bullough, 1990; Grant, 1992).

Robins succumbed to public outcry and stopped selling Dalkon Shields in 1974, and at the request of the FDA in 1980, sent letters to physicians recommending removal. In 1984 the manufacturer began an ad campaign urging women to remove their IUDs. Women in other countries still used the Shield (Mintz, 1985).

Continued use of the IUD in the developing world became the target of reproductive rights activists in the U.S., but a scientific group convened by the World Health Organization found that the IUD was safe and reliable in both developed and undeveloped countries (Rinehart, 1995).

From 1976 to 1988, when ParaGard® became available, only the Progestasert® remained on the market in the U.S. until July of 2001 when it, too, was withdrawn (Grimes, 2004; Hutchings et al., 1985). Many IUD enthusiasts crossed the border to Canada or went elsewhere to obtain the Copper-T, or Tatum-T, IUD that had formerly been available in the U.S. (ACOG, 1987).

The specter of lawsuits and huge liability insurance premiums also led many health care providers to offer other contraceptive options to their clients. The fewer IUDs they inserted, the less skilled they became at insertion — and the less likely it was that they would offer the device to patients (Grimes, 1992).

The IUD is now safer than ever than ever before and it has excellent credentials. Both the World Health Organization and the American Medical Association name it among the safest, most effective, and least expensive reversible methods of birth control available to women (Knowles & Ringel, 1998).

The newest IUD on the market in the U.S. is the Mirena, approved by the FDA in December 2000, it

delivers a small dose of the progestin, levonorgestrel, directly into the uterus and reduces heavy bleeding sometimes associated with earlier IUDs. The Mirena intrauterine “system”, as it is called, is effective for up to five years (KFF, 2001).

Permanent Methods

Vasectomy

Throughout the greater part of history, the sterilization of men was usually anything but voluntary. It was performed violently by castration — the removal of the testicles, and often the penis as well. For thousands of years, patriarchal bloodlines throughout the world were protected by using castrated men to guard and serve women who were conscripted to breed for lords, kings, and emperors (Anderson, 1990). These “eunuchs” guarded harems in the Near and Far East, sang soprano in opera houses and church choirs in Europe, and ran China’s imperial bureaucracy for nearly 5,000 years, up until the 20th century (Anderson, 1990; Tannahill, 1992). (The last eunuch to sing in the Vatican choir died in 1924) (Ranke-Heinemann, 1990).

Sterilization continued to be associated with castration until modern times. In the late 1800s, men were sterilized in desperate efforts to improve their health, make them feel younger, reverse impotence, and heal infections. The first vasectomy was performed in 1894, in Britain, to relieve the patient’s swollen, hardened prostate gland (Bullough, 1994). In the early 20th century, many men were involuntarily sterilized to prevent them from passing on hereditary diseases (Bullough & Bullough, 1990).

In 1916, Viennese surgeon Eugen Steinach began performing vasectomies for thousands of men, possibly including his neighbor Sigmund Freud, in an attempt to restrict the production of hormones that cause aging. Steinach ended his operations in the 1940s when his theory was discredited (Bullough, 1994; Gay, 1988).

In the beginning of the century, vasectomy for birth control was usually punitive or eugenic. The imprisoned, mentally ill, retarded, and men with hereditary diseases were sterilized throughout the first half of the century, ostensibly to keep them from committing sex crimes or to prevent the genetic transmission of diseases and conditions — which in those days were thought to include nearly everything, from epilepsy to poverty (Bullough & Bullough, 1990). Monetary incentives were often used to entice recalcitrant poor men into volunteering (Chesler, 1992).

Using vasectomy for *voluntary* birth control is a relatively new idea. It was denied to any man who sought it, unless he was over 35 and had at least three children. By 1960, only 45,000 American men had vasectomies voluntarily.

More and more men volunteered for vasectomy as the women’s movement of the ‘60s and ‘70s increased men’s appreciation of gender equality and the side effects of the first oral contraceptives became more apparent. They also chose vasectomy because sterilization is less complicated and expensive for men than it is for women. By the early 1970s, three-quarters of a million American men a year were having vasectomies (Goldstein & Feinberg, 1982).

The increasing popularity of vasectomy inspired one of the more dubious marketing efforts of the swinging ‘70s — the vasectomy lapel pin. A man could wear a little gold-plated lapel pin to signal potential partners in singles clubs that he was “safe.” The pin was shaped like the biological symbol for male. It had a little break that interrupted the circle (Thomas, 1988). The problem was that a man could buy one and wear it, whether or not he had had a vasectomy. So many unscrupulous men wore vasectomy lapel pins that the market for them was ruined (Knowles, 2001).

The failure of the lapel-pin gambit had little effect on American men’s desire to take responsibility for birth control. Currently, more than four million American men choose vasectomy each year (AGI, 1992). But the anti-family planning movement fanatically opposes voluntary vasectomy. In 1985, for example, Tek Kor, a 41-year-old meat vendor in Thailand and father of 22 children, planned to have a vasectomy because he could not afford to have any more children. He also said that vasectomy was cheaper and safer than providing his seven wives with contraceptives.

Also known as the Nakthon Pathom Casanova, Tek Kor publicized his plans to give a boost to the efforts of Thailand’s leading family planning campaigner, Meechai Viravaidya (who was awarded the PPFA Margaret Sanger Award in 1985). The Club of Life, an international anti-birth control group based in the U.S, immediately targeted Kor. He was ultimately persuaded to forgo the vasectomy and have more children (Branigin, 1985).

Tubal Sterilization

The first tubal ligation in the U.S. was performed in Toledo, Ohio, in 1880. The doctor did it during a cesarean section to spare his patient any future high-risk pregnancies (Moss, 1991).

Doctors rarely assisted women with birth control of any kind at the turn of the 20th century — at least not openly. Women were expected to have as many children as they possibly could, and they were expected to risk their lives to do so. It was commonplace for leaders of different ethnic and religious groups to implore their followers to “outbreed” people who weren’t like them. In 1907, President Theodore Roosevelt succinctly expressed the feeling of the times when he said that a white Protestant woman who avoided pregnancy was “a criminal against the race” (Harkavy, 1991; Skidmore, 1998).

Despite the clamoring of racial purists of all stripes and religious leaders of all stripes, contraception became increasingly acceptable as the 20th century wore on (Grimes, 1998). But of all the methods available, tubal sterilization, now the most popular method in the U.S., was the last to gain social acceptance (AGI, 1998a).

As late as the 1960s, doctors observed “the rule of 120” before granting a woman’s request for voluntary sterilization. According to the rule, a woman could have a tubal sterilization only if her age, multiplied by the number of her children, equaled no less than 120. If she was 20, she had to have six or more children to be granted sterilization. If she was 30, she had to have at least four. If she was forty, she had to have three, and so on. Any woman who was satisfied with having two children would have to wait until her 60th birthday before a doctor could help her. For a woman with one child, that fateful birthday would be her 120th! (Moss, 1991).

Events in the early 1970s and ‘80s combined to make tubal sterilization attractive, accessible, and acceptable. The sexual revolution of the 1960’s and ‘70s had set the stage for a sea change in cultural attitudes about sex and contraception. Women were encouraged to enjoy their sexuality. The advent of the pill and IUD made it possible for women to explore their erotic lives with a self-assurance that was undreamed of only a generation before. There was also a technological advance in the surgical procedures that enabled women to choose tubal sterilization.

Until the mid-1970s, sterilization for women usually involved major abdominal surgery. It required general anesthesia, a long stay in the hospital, and a painful, extended recovery. Fiberoptic technology, invented in the early ‘70s, allowed surgery to be performed with local anesthesia by using a laparoscope inserted through a very small incision. The risks associated with general anesthesia were eliminated, and the pain and recovery time for tubal sterilization were reduced dramatically (Moss, 1991).

By the time the first mini-laparotomy was performed in 1975, many women were looking for alternatives to the pill (Brody, 1978; Khan, 1982). Scares about the side effects of the early high-dose pills and about the IUDs of the 1970s encouraged more and more women to consider sterilization, especially if they had completed their families (McLaren, 1990). During the 1990s, tubal sterilization became the most popular method of contraception in the U.S (AGI, 1998).

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