

= Birth control =

Birth control , also known as contraception and fertility control , is a method or device used to prevent pregnancy . Planning , making available , and use of birth control is called family planning . Birth control methods have been used since ancient times , but effective and safe methods only became available in the 20th century . Some cultures limit or discourage access to birth control because they consider it to be morally , religiously , or politically undesirable .

The most effective methods of birth control are sterilization by means of vasectomy in males and tubal ligation in females , intrauterine devices (IUDs) , and implantable birth control . This is followed by a number of hormone based methods including oral pills , patches , vaginal rings , and injections . Less effective methods include physical barriers such as condoms , diaphragms and birth control sponges and fertility awareness methods . The least effective methods are spermicides and withdrawal by the male before ejaculation . Sterilization , while highly effective , is not usually reversible ; all other methods are reversible , most immediately upon stopping them . Safe sex practices , such as with the use of male or female condoms , can also help prevent sexually transmitted infections . Other methods of birth control do not protect against sexually transmitted diseases . Emergency birth control can prevent pregnancy if taken within the 72 to 120 hours after unprotected sex . Some argue not having sex as a form of birth control , but abstinence @-@ only sex education may increase teenage pregnancies if offered without birth control education , due to non @-@ compliance .

In teenagers , pregnancies are at greater risk of poor outcomes . Comprehensive sex education and access to birth control decreases the rate of unwanted pregnancies in this age group . While all forms of birth control can generally be used by young people , long @-@ acting reversible birth control such as implants , IUDs , or vaginal rings are more successful in reducing rates of teenage pregnancy . After the delivery of a child , a woman who is not exclusively breastfeeding may become pregnant again after as few as four to six weeks . Some methods of birth control can be started immediately following the birth , while others require a delay of up to six months . In women who are breastfeeding , progestin @-@ only methods are preferred over combined oral birth control pills . In women who have reached menopause , it is recommended that birth control be continued for one year after the last period .

About 222 million women who want to avoid pregnancy in developing countries are not using a modern birth control method . Birth control use in developing countries has decreased the number of deaths during or around the time of pregnancy by 40 % (about 270 @,@ 000 deaths prevented in 2008) and could prevent 70 % if the full demand for birth control were met . By lengthening the time between pregnancies , birth control can improve adult women 's delivery outcomes and the survival of their children . In the developing world women 's earnings , assets , weight , and their children 's schooling and health all improve with greater access to birth control . Birth control increases economic growth because of fewer dependent children , more women participating in the workforce , and less use of scarce resources .

= = Methods = =

Birth control methods include barrier methods , hormonal birth control , intrauterine devices (IUDs) , sterilization , and behavioral methods . They are used before or during sex while emergency contraceptives are effective for up to a few days after sex . Effectiveness is generally expressed as the percentage of women who become pregnant using a given method during the first year , and sometimes as a lifetime failure rate among methods with high effectiveness , such as tubal ligation .

The most effective methods are those that are long acting and do not require ongoing health care visits . Surgical sterilization , implantable hormones , and intrauterine devices all have first @-@ year failure rates of less than 1 % . Hormonal contraceptive pills , patches or vaginal rings , and the lactational amenorrhea method (LAM) , if used strictly , can also have first @-@ year (or for LAM , first @-@ 6 @-@ month) failure rates of less than 1 % . With typical use first @-@ year failure rates are considerably high , at 9 % , due to incorrect usage . Other methods such as condoms ,

diaphragms , and spermicides have higher first @-@ year failure rates even with perfect usage . The American Academy of Pediatrics recommends long acting reversible birth control as first line for young people .

While all methods of birth control have some potential adverse effects , the risk is less than that of pregnancy . After stopping or removing many methods of birth control , including oral contraceptives , IUDs , implants and injections , the rate of pregnancy during the subsequent year is the same as for those who used no birth control .

In those with specific health problems , certain forms of birth control may require further investigations . For women who are otherwise healthy , many methods of birth control should not require a medical exam ? including birth control pills , injectable or implantable birth control , and condoms . Specifically , a pelvic exam , breast exam , or blood test before starting birth control pills do not appear to affect outcomes and , therefore , are not required . In 2009 , the World Health Organization (WHO) published a detailed list of medical eligibility criteria for each type of birth control .

= = = Hormonal = = =

Hormonal contraception is available in a number of different forms , including oral pills , implants under the skin , injections , patches , IUDs and a vaginal ring . They are currently available only for women , although hormonal contraceptives for men have and are being clinically tested . There are two types of oral birth control pills , the combined oral contraceptive pills (which contain both estrogen and progesterone) and the progestogen @-@ only pills (sometimes called minipills) . If either is taken during pregnancy , they do not increase the risk of miscarriage nor cause birth defects . Both types of birth control pills prevent fertilization mainly by inhibiting ovulation and thickening cervical mucous . Their effectiveness depends on the user remembering to take the pills . They may also change the lining of the uterus and thus decrease implantation .

Combined hormonal contraceptives are associated with a slightly increased risk of venous and arterial blood clots . Venous clots , on average , increase from 2 @. @ 8 to 9 @. @ 8 per 10 @, @ 000 women years which is still less than that associated with pregnancy . Due to this risk , they are not recommended in women over 35 years of age who continue to smoke . The effect on sexual desire is varied , with increase or decrease in some but with no effect in most . Combined oral contraceptives reduce the risk of ovarian cancer and endometrial cancer and do not change the risk of breast cancer . They often reduce menstrual bleeding and painful menstruation cramps . The lower doses of estrogen released from the vaginal ring may reduce the risk of breast tenderness , nausea , and headache associated with higher dose estrogen products .

Progestin @-@ only pills , injections and intrauterine devices are not associated with an increased risk of blood clots and may be used by women with previous blood clots in their veins . In those with a history of arterial blood clots , non @-@ hormonal birth control or a progestin @-@ only method other than the injectable version should be used . Progestin @-@ only pills may improve menstrual symptoms and can be used by breastfeeding women as they do not affect milk production . Irregular bleeding may occur with progestin @-@ only methods , with some users reporting no periods . The progestins drospirenone and desogestrel minimize the androgenic side effects but increase the risks of blood clots and are thus not first line . The perfect use first @-@ year failure rate of the injectable progestin , Depo @-@ Provera , is 0 @. @ 2 % ; the typical use first failure rate is 6 % .

= = = Barrier = = =

Barrier contraceptives are devices that attempt to prevent pregnancy by physically preventing sperm from entering the uterus . They include male condoms , female condoms , cervical caps , diaphragms , and contraceptive sponges with spermicide .

Globally , condoms are the most common method of birth control . Male condoms are put on a man 's erect penis and physically block ejaculated sperm from entering the body of a sexual partner . Modern condoms are most often made from latex , but some are made from other materials such as

polyurethane , or lamb 's intestine . Female condoms are also available , most often made of nitrile , latex or polyurethane . Male condoms have the advantage of being inexpensive , easy to use , and have few adverse effects . Making condoms available to teenagers does not appear to affect the age of onset of sexual activity or its frequency . In Japan about 80 % of couples who are using birth control use condoms , while in Germany this number is about 25 % , and in the United States it is 18 % .

Male condoms and the diaphragm with spermicide have typical use first @-@ year failure rates of 18 % and 12 % , respectively . With perfect use condoms are more effective with a 2 % first @-@ year failure rate versus a 6 % first @-@ year rate with the diaphragm . Condoms have the additional benefit of helping to prevent the spread of some sexually transmitted infections such as HIV / AIDS .

Contraceptive sponges combine a barrier with a spermicide . Like diaphragms , they are inserted vaginally before intercourse and must be placed over the cervix to be effective . Typical failure rates during the first year depend on whether or not a woman has previously given birth , being 24 % in those who have and 12 % in those who have not . The sponge can be inserted up to 24 hours before intercourse and must be left in place for at least six hours afterward . Allergic reactions and more severe adverse effects such as toxic shock syndrome have been reported .

= = = Intrauterine devices = = =

The current intrauterine devices (IUD) are small devices , often ' T ' -shaped , often containing either copper or levonorgestrel , which are inserted into the uterus . They are one form of long @-@ acting reversible contraception which are the most effective types of reversible birth control . Failure rates with the copper IUD is about 0 @.@ 8 % while the levonorgestrel IUD has a failure rates of 0 @.@ 2 % in the first year of use . Among types of birth control , they along with birth control implants result in the greatest satisfaction among users . As of 2007 , IUDs are the most widely used form of reversible contraception , with more than 180 million users worldwide .

Evidence supports effectiveness and safety in adolescents and those who have and have not previously had children . IUDs do not affect breastfeeding and can be inserted immediately after delivery . They may also be used immediately after an abortion . Once removed , even after long term use , fertility returns to normal immediately .

While copper IUDs may increase menstrual bleeding and result in more painful cramps hormonal IUDs may reduce menstrual bleeding or stop menstruation altogether . Cramping can be treated with NSAIDs . Other potential complications include expulsion (2 ? 5 %) and rarely perforation of the uterus (less than 0 @.@ 7 %) . A previous model of the intrauterine device (the Dalkon shield) was associated with an increased risk of pelvic inflammatory disease , however the risk is not affected with current models in those without sexually transmitted infections around the time of insertion .

= = = Sterilization = = =

Surgical sterilization is available in the form of tubal ligation for women and vasectomy for men . There are no significant long @-@ term side effects , and tubal ligation decreases the risk of ovarian cancer . Short term complications are twenty times less likely from a vasectomy than a tubal ligation . After a vasectomy , there may be swelling and pain of the scrotum which usually resolves in a week or two . With tubal ligation , complications occur in 1 to 2 percent of procedures with serious complications usually due to the anesthesia . Neither method offers protection from sexually transmitted infections .

This decision may cause regret in some men and women . Of women aged over 30 who have undergone tubal ligation , about 5 % regret their decision , as compared with 20 % of women aged under 30 . By contrast , less than 5 % of men are likely to regret sterilization . Men more likely to regret sterilization are younger , have young or no children , or have an unstable marriage . In a survey of biological parents , 9 % stated they would not have had children if they were able to do it

over again .

Although sterilization is considered a permanent procedure , it is possible to attempt a tubal reversal to reconnect the fallopian tubes or a vasectomy reversal to reconnect the vasa deferentia . In women the desire for a reversal is often associated with a change in spouse . Pregnancy success rates after tubal reversal are between 31 and 88 percent , with complications including an increased risk of ectopic pregnancy . The number of males who request reversal is between 2 and 6 percent . Rates of success in fathering another child after reversal are between 38 and 84 percent ; with success being lower the longer the time period between the original procedure and the reversal . Sperm extraction followed by in vitro fertilization may also be an option in men .

== Behavioral ==

Behavioral methods involve regulating the timing or method of intercourse to prevent introduction of sperm into the female reproductive tract , either altogether or when an egg may be present . If used perfectly the first @-@ year failure rate may be around 3 @. @ 4 % , however if used poorly first @-@ year failure rates may approach 85 % .

=== Fertility awareness ===

Fertility awareness methods involve determining the most fertile days of the menstrual cycle and avoiding unprotected intercourse . Techniques for determining fertility include monitoring basal body temperature , cervical secretions , or the day of the cycle . They have typical first @-@ year failure rates of 24 % ; perfect use first @-@ year failure rates depend on which method is used and range from 0 @. @ 4 % to 5 % . The evidence on which these estimates are based , however , is poor as the majority of people in trials stop their use early . Globally , they are used by about 3 @. @ 6 % of couples . If based on both basal body temperature and another primary sign , the method is referred to as symptothermal . Overall first @-@ year failure rates of < 2 % to 20 % have been reported in clinical studies of the symptothermal method .

=== Withdrawal ===

The withdrawal method (also known as coitus interruptus) is the practice of ending intercourse (" pulling out ") before ejaculation . The main risk of the withdrawal method is that the man may not perform the maneuver correctly or in a timely manner . First @-@ year failure rates vary from 4 % with perfect usage to 22 % with typical usage . It is not considered birth control by some medical professionals .

There is little evidence regarding the sperm content of pre @-@ ejaculatory fluid . While some tentative research did not find sperm , one trial found sperm present in 10 out of 27 volunteers . The withdrawal method is used as birth control by about 3 % of couples .

=== Abstinence ===

Though some groups advocate total sexual abstinence , by which they mean the avoidance of all sexual activity , in the context of birth control the term usually means abstinence from vaginal intercourse . Abstinence is 100 % effective in preventing pregnancy ; however , not everyone who intends to be abstinent refrains from all sexual activity , and in many populations there is a significant risk of pregnancy from nonconsensual sex .

Abstinence @-@ only sex education does not reduce teenage pregnancy . Teen pregnancy rates are higher in students given abstinence @-@ only education , as compared with comprehensive sex education . Some authorities recommend that those using abstinence as a primary method have backup method (s) available (such as condoms or emergency contraceptive pills) . Deliberate non @-@ penetrative sex without vaginal sex or deliberate oral sex without vaginal sex are also sometimes considered birth control . While this generally avoids pregnancy , pregnancy can still

occur with intercrural sex and other forms of penis @-@ near @-@ vagina sex (genital rubbing , and the penis exiting from anal intercourse) where sperm can be deposited near the entrance to the vagina and can travel along the vagina 's lubricating fluids .

== = Lactation == =

The lactational amenorrhea method involves the use of a woman 's natural postpartum infertility which occurs after delivery and may be extended by breastfeeding . This usually requires the presence of no periods , exclusively breastfeeding the infant , and a child younger than six months . The World Health Organization states that if breastfeeding is the infant 's only source of nutrition , the failure rate is 2 % in the six months following delivery . Six uncontrolled studies of lactational amenorrhea method users found failure rates at 6 months postpartum between 0 % and 7 @.@ 5 % . Failure rates increase to 4 ? 7 % at one year and 13 % at two years . Feeding formula , pumping instead of nursing , the use of a pacifier , and feeding solids all increase its failure rate . In those who are exclusively breastfeeding , about 10 % begin having periods before three months and 20 % before six months . In those who are not breastfeeding , fertility may return four weeks after delivery .

== = Emergency == =

Emergency contraceptive methods are medications (sometimes misleadingly referred to as " morning @-@ after pills ") or devices used after unprotected sexual intercourse with the hope of preventing pregnancy . They work primarily by preventing ovulation or fertilization . They are unlikely to affect implantation , but this has not been completely exclude . A number of options exist , including high dose birth control pills , levonorgestrel , mifepristone , ulipristal and IUDs . Levonorgestrel pills , when used within 3 days , decrease the chance of pregnancy after a single episode of unprotected sex or condom failure by 70 % (resulting in a pregnancy rate of 2 @.@ 2 %) . Ulipristal , when used within 5 days , decreases the chance of pregnancy by about 85 % (pregnancy rate 1 @.@ 4 %) and might be a little more effective than levonorgestrel . Mifepristone is also more effective than levonorgestrel while copper IUDs are the most effective method . IUDs can be inserted up to five days after intercourse and prevent about 99 % of pregnancies after an episode of unprotected sex (pregnancy rate of 0 @.@ 1 to 0 @.@ 2 %) . This makes them the most effective form of emergency contraceptive . In those who are overweight or obese levonorgestrel is less effective and an IUD or ulipristal is recommended .

Providing emergency contraceptive pills to women in advance does not affect rates of sexually transmitted infections , condom use , pregnancy rates , or sexual risk @-@ taking behavior . All methods have minimal side effects .

== = Dual protection == =

Dual protection is the use of methods that prevent both sexually transmitted infections and pregnancy . This can be with condoms either alone or along with another birth control method or by the avoidance of penetrative sex . If pregnancy is a high concern using two methods at the same time is reasonable , and two forms of birth control is recommended in those taking the anti @-@ acne drug isotretinoin , due to the high risk of birth defects if taken during pregnancy .

== Effects ==

== = Health == =

Contraceptive use in developing countries is estimated to have decreased the number of maternal deaths by 40 % (about 270 @,@ 000 deaths prevented in 2008) and could prevent 70 % of deaths

if the full demand for birth control were met . These benefits are achieved by reducing the number of unplanned pregnancies that subsequently result in unsafe abortions and by preventing pregnancies in those at high risk .

Birth control also improves child survival in the developing world by lengthening the time between pregnancies . In this population , outcomes are worse when a mother gets pregnant within eighteen months of a previous delivery . Delaying another pregnancy after a miscarriage however does not appear to alter risk and women are advised to attempt pregnancy in this situation whenever they are ready .

Teenage pregnancies , especially among younger teens , are at greater risk of adverse outcomes including early birth , low birth weight , and death of the infant . In the United States 82 % of pregnancies in those between 15 and 19 are unplanned . Comprehensive sex education and access to birth control are effective in decreasing pregnancy rates in this age group .

= = = Finances = = =

In the developing world , birth control increases economic growth due to there being fewer dependent children and thus more women participating in the workforce . Women 's earnings , assets , body mass index , and their children 's schooling and body mass index all improve with greater access to birth control . Family planning via the use of modern birth control is one of the most cost @-@ effective health interventions . For every dollar spent , the United Nations estimates that two to six dollars are saved . These cost savings are related to preventing unplanned pregnancies and decreasing the spread of sexually transmitted illnesses . While all methods are beneficial financially , the use of copper IUDs resulted in the greatest savings .

The total medical cost for a pregnancy , delivery and care of a newborn in the United States is on average \$ 21 @,@ 000 for a vaginal delivery and \$ 31 @,@ 000 for a Caesarean section as of 2012 . In most other countries the cost is less than half . For a child born in 2011 , an average US family will spend \$ 235 @,@ 000 over 17 years to raise them .

= = Prevalence = =

Globally , as of 2009 , approximately 60 % of those who are married and able to have children use birth control . How frequently different methods are used varies widely between countries . The most common method in the developed world is condoms and oral contraceptives , while in Africa it is oral contraceptives and in Latin America and Asia it is sterilization . In the developing world overall , 35 % of birth control is via female sterilization , 30 % is via IUDs , 12 % is via oral contraceptives , 11 % is via condoms , and 4 % is via male sterilization .

While less used in the developed countries than the developing world , the number of women using IUDs as of 2007 was more than 180 million . Avoiding sex when fertile is used by about 3 @.@ 6 % of women of childbearing age , with usage as high as 20 % in areas of South America . As of 2005 , 12 % of couples are using a male form of birth control (either condoms or a vasectomy) with higher rates in the developed world . Usage of male forms of birth control has decreased between 1985 and 2009 . Contraceptive use among women in Sub @-@ Saharan Africa has risen from about 5 % in 1991 to about 30 % in 2006 .

As of 2012 , 57 % of women of childbearing age want to avoid pregnancy (867 of 1520 million) . About 222 million women however were not able to access birth control , 53 million of whom were in sub @-@ Saharan Africa and 97 million of whom were in Asia . This results in 54 million unplanned pregnancies and nearly 80 @,@ 000 maternal deaths a year . Part of the reason that many women are without birth control is that many countries limit access due to religious or political reasons , while another contributor is poverty . Due to restrictive abortion laws in Sub @-@ Saharan Africa , many women turn to unlicensed abortion providers for unintended pregnancy , resulting in about 2 ? 4 % obtaining unsafe abortions each year .

= = History = =

= = = Early history = = =

The Egyptian Ebers Papyrus from 1550 BCE and the Kahun Papyrus from 1850 BCE have within them some of the earliest documented descriptions of birth control : the use of honey , acacia leaves and lint to be placed in the vagina to block sperm . It is believed that in Ancient Greece silphium was used as birth control which , due to its effectiveness and thus desirability , was harvested into extinction .

In medieval Europe , any effort to halt pregnancy was deemed immoral by the Catholic Church , although it is believed that women of the time still used a number of birth control measures , such as coitus interruptus and inserting lily root and rue into the vagina . Women in the Middle Ages were also encouraged to tie weasel testicles around their thighs during sex to prevent pregnancy . The oldest condoms discovered to date were recovered in the ruins of Dudley Castle in England , and are dated back to 1640 . They were made of animal gut , and were most likely used to prevent the spread of sexually transmitted diseases during the English Civil War . Casanova , living in 18th century Italy , described the use of a lambskin covering to prevent pregnancy ; however , condoms only became widely available in the 20th century .

= = = Birth control movement = = =

The birth control movement developed during the 19th and early 20th centuries . The Malthusian League , based on the ideas of Thomas Malthus , was established in 1877 in the United Kingdom to educate the public about the importance of family planning and to advocate for getting rid of penalties for promoting birth control . It was founded during the " Knowlton trial " of Annie Besant and Charles Bradlaugh , who were prosecuted for publishing on various methods of birth control .

In the United States , Margaret Sanger and Otto Bobsein popularized the phrase " birth control " in 1914 . Sanger was mainly active in the United States but had gained an international reputation by the 1930s . At the time , under the Comstock Law , distribution of birth control information was illegal . She jumped bail in 1914 after her arrest for distributing birth control information and left the United States for the United Kingdom to return in 1915 . Sanger established a short @-@ lived birth @-@ control clinic based in the Brownville section of Brooklyn , New York in 1916 , which was shut down after eleven days and resulted in her arrest . The publicity surrounding the arrest , trial , and appeal sparked birth control activism across the United States .

The first permanent birth @-@ control clinic was established in Britain in 1921 by Marie Stopes working with the Malthusian League . The clinic , run by midwives and supported by visiting doctors , offered women 's birth @-@ control advice and taught them the use of a cervical cap . Her clinic made contraception acceptable during the 1920s by presenting it in scientific terms . In 1921 , Sanger founded the American Birth Control League , which later became the Planned Parenthood Federation of America . In 1924 the Society for the Provision of Birth Control Clinics was founded to campaign for municipal clinics ; this led to the opening of a second clinic in Greengate , Salford in 1926 . Throughout the 1920s , Stopes and other feminist pioneers , including Dora Russell and Stella Browne , played a major role in breaking down taboos about sex . In April 1930 the Birth Control Conference assembled 700 delegates and was successful in bringing birth control and abortion into the political sphere ? three months later , the Ministry of Health , in the United Kingdom , allowed local authorities to give birth @-@ control advice in welfare centres .

In 1936 the U.S. court ruled in U.S. v. One Package that medically prescribing contraception to save a persons life or well being was not illegal under the Comstock Law ; following this decision , the American Medical Association Committee on Contraception revoked its 1936 statement condemning birth control . A national survey in 1937 showed 71 percent of the adult population supported the use of contraception . By 1938 347 birth control clinics were running in the United States despite their advertisement still being illegal . First Lady Eleanor Roosevelt publicly supported birth control and family planning . In 1966 , President Lyndon B. Johnson started endorsing public

funding for family planning services , and the Federal Government began subsidizing birth control services for low @-@ income families . The Affordable Care Act , passed into law on March 23 , 2010 under President Barack Obama , requires all plans in the Health Insurance Marketplace to cover contraceptive methods . These include barrier methods , hormonal methods , implanted devices , emergency contraceptives , and sterilization procedures .

= = = Modern methods = = =

In 1909 , Richard Richter developed the first intrauterine device made from silkworm gut , which was further developed and marketed in Germany by Ernst Gräfenberg in the late 1920s . Gregory Pincus and John Rock with help from the Planned Parenthood Federation of America developed the first birth control pills in the 1950s , such as mestranol / noretynodrel , which became publicly available in the 1960s through the Food and Drug Administration under the name Enovid . Medical abortion became an alternative to surgical abortion with the availability of prostaglandin analogs in the 1970s and mifepristone in the 1980s .

= = Society and culture = =

= = = Legal positions = = =

Human rights agreements require most governments to provide family planning and contraceptive information and services . These include the requirement to create a national plan for family planning services , remove laws that limit access to family planning , ensure that a wide variety of safe and effective birth control methods are available including emergency contraceptives , make sure there are appropriately trained healthcare providers and facilities at an affordable price , and create a process to review the programs implemented . If governments fail to do the above it may put them in breach of binding international treaty obligations .

In America , *Griswold v. Connecticut* overturned a state law prohibiting dissemination of contraception information based on a constitutional right to privacy for marital relationships . In 1971 , *Eisenstadt v. Baird* extended this right to privacy to single people .

In 2010 , the United Nations launched the Every Woman Every Child movement to assess the progress toward meeting women 's contraceptive needs . The initiative has set a goal of increasing the number of users of modern birth control by 120 million women in the world 's 69 poorest countries by the year 2020 . Additionally , they aim to eradicate discrimination against girls and young women who seek contraceptives . The American Congress of Obstetricians and Gynecologists (ACOG) recommended in 2014 that oral birth control pills should be over the counter medications .

= = = Religious views = = =

Religions vary widely in their views of the ethics of birth control . The Roman Catholic Church officially only accepts natural family planning , although large numbers of Catholics in developed countries accept and use modern methods of birth control . Among Protestants there is a wide range of views from supporting none to allowing all methods of birth control . Views in Judaism range from the stricter Orthodox sect to the more relaxed Reform sect . Hindus may use both natural and artificial contraceptives . A common Buddhist view is that preventing conception is acceptable , while intervening after conception has occurred is not . In Islam , contraceptives are allowed if they do not threaten health , although their use is discouraged by some .

= = = World Contraception Day = = =

September 26 is World Contraception Day , devoted to raising awareness and improving education

about sexual and reproductive health , with a vision of a world where every pregnancy is wanted . It is supported by a group of governments and international NGOs , including the Office of Population Affairs , the Asian Pacific Council on Contraception , Centro Latinoamericano Salud y Mujer , the European Society of Contraception and Reproductive Health , the German Foundation for World Population , the International Federation of Pediatric and Adolescent Gynecology , International Planned Parenthood Federation , the Marie Stopes International , Population Services International , the Population Council , the United States Agency for International Development (USAID) , and Women Deliver .

= = = Misconceptions = = =

There are a number of common misconceptions regarding sex and pregnancy . Douching after sexual intercourse is not an effective form of birth control . Additionally , it is associated with a number of health problems and thus is not recommended . Women can become pregnant the first time they have sexual intercourse and in any sexual position . It is possible , although not very likely , to become pregnant during menstruation .

= = Research directions = =

= = = Females = = =

Improvements of existing birth control methods are needed , as around half of those who get pregnant unintentionally are using birth control at the time . A number of alterations of existing contraceptive methods are being studied , including a better female condom , an improved diaphragm , a patch containing only progestin , and a vaginal ring containing long @-@ acting progesterone . This vaginal ring appears to be effective for three or four months and is currently available in some areas of the world . For women who rarely have sex , the taking of the hormonal birth control levonorgestrel around the time of sex looks promising .

A number of methods to perform sterilization via the cervix are being studied . One involves putting quinacrine in the uterus which causes scarring and infertility . While the procedure is inexpensive and does not require surgical skills , there are concerns regarding long @-@ term side effects . Another substance , polidocanol , which functions in the same manner is being looked at . A device called Essure , which expands when placed in the fallopian tubes and blocks them , was approved in the United States in 2002 .

= = = Males = = =

Methods of male birth control include condoms , vasectomies and withdrawal . Between 25 and 75 % of males who are sexually active would use hormonal birth control if it was available for them . A number of hormonal and non @-@ hormonal methods are in trials , and there is some research looking at the possibility of contraceptive vaccines .

A reversible surgical method under investigation is reversible inhibition of sperm under guidance (RISUG) which consists of injecting a polymer gel , styrene maleic anhydride in dimethyl sulfoxide , into the vas deferens . An injection with sodium bicarbonate washes out the substance and restores fertility . Another is an intravas device which involves putting a urethane plug into the vas deferens to block it . A combination of an androgen and a progestin seems promising , as do selective androgen receptor modulators . Ultrasound and methods to heat the testicles have undergone preliminary studies .

= = Other animals = =

Neutering or spaying , which involves removing some of the reproductive organs , is often carried

out as a method of birth control in household pets . Many animal shelters require these procedures as part of adoption agreements . In large animals the surgery is known as castration . Birth control is also being considered as an alternative to hunting as a means of controlling overpopulation in wild animals . Contraceptive vaccines have been found to be effective in a number of different animal populations .