

= Condom =

A condom is a sheath @-@ shaped barrier device that may be used during sexual intercourse to reduce the probability of pregnancy and decrease the risk of sexually transmitted infections (STIs) such as HIV / AIDS . It is rolled onto an erect penis before intercourse and blocks ejaculated semen from entering the body of a sexual partner . Condoms are also used during fellatio and for collection of semen for use in infertility treatment . In the modern age , condoms are most often made from latex , but some are made from other materials such as polyurethane , polyisoprene , or lamb intestine . A female condom is also available , often made of nitrile rubber .

As a method of birth control , male condoms have the advantages of being inexpensive , easy to use , having few side effects , and offering protection against sexually transmitted infections . With proper use ? and use at every act of intercourse ? women whose partners use male condoms experience a 2 % per @-@ year pregnancy rate . With typical use the rate of pregnancy is 18 % per @-@ year . Condoms have been used for at least 400 years . Since the 19th century , they have been one of the most popular methods of contraception in the world . While widely accepted in modern times , condoms have generated some controversy , primarily over what role they should play in sex education classes .

= = Medical uses = =

= = = Birth control = = =

The effectiveness of condoms , as of most forms of contraception , can be assessed two ways . Perfect use or method effectiveness rates only include people who use condoms properly and consistently . Actual use , or typical use effectiveness rates are of all condom users , including those who use condoms incorrectly or do not use condoms at every act of intercourse . Rates are generally presented for the first year of use . Most commonly the Pearl Index is used to calculate effectiveness rates , but some studies use decrement tables .

The typical use pregnancy rate among condom users varies depending on the population being studied , ranging from 10 to 18 % per year . The perfect use pregnancy rate of condoms is 2 % per year . Condoms may be combined with other forms of contraception (such as spermicide) for greater protection .

= = = Sexually transmitted infections = = =

Condoms are widely recommended for the prevention of sexually transmitted infections (STIs) . They have been shown to be effective in reducing infection rates in both men and women , but not eliminating it . While not perfect , the condom is effective at reducing the transmission of organisms that cause AIDS , genital herpes , cervical cancer , genital warts , syphilis , chlamydia , gonorrhea , and other diseases . Condoms are often recommended as an adjunct to more effective birth control methods (such as IUD) in situations where STD protection is also desired .

According to a 2000 report by the National Institutes of Health (NIH) , consistent use of latex condoms reduces the risk of HIV / AIDS transmission by approximately 85 % relative to risk when unprotected , putting the seroconversion rate (infection rate) at 0 @.@ 9 per 100 person @-@ years with condom , down from 6 @.@ 7 per 100 person @-@ years . Analysis published in 2007 from the University of Texas Medical Branch and the World Health Organization found similar risk reductions of 80 ? 95 % .

The 2000 NIH review concluded that condom use significantly reduces the risk of gonorrhea for men . A 2006 study reports that proper condom use decreases the risk of transmission of human papillomavirus (HPV) to women by approximately 70 % . Another study in the same year found consistent condom use was effective at reducing transmission of herpes simplex virus @-@ 2 also known as genital herpes , in both men and women .

Although a condom is effective in limiting exposure , some disease transmission may occur even with a condom . Infectious areas of the genitals , especially when symptoms are present , may not be covered by a condom , and as a result , some diseases like HPV and herpes may be transmitted by direct contact . The primary effectiveness issue with using condoms to prevent STDs , however , is inconsistent use .

Condoms may also be useful in treating potentially precancerous cervical changes . Exposure to human papillomavirus , even in individuals already infected with the virus , appears to increase the risk of precancerous changes . The use of condoms helps promote regression of these changes . In addition , researchers in the UK suggest that a hormone in semen can aggravate existing cervical cancer , condom use during sex can prevent exposure to the hormone .

= = = Causes of failure = = =

Condoms may slip off the penis after ejaculation , break due to improper application or physical damage (such as tears caused when opening the package) , or break or slip due to latex degradation (typically from usage past the expiration date , improper storage , or exposure to oils) . The rate of breakage is between 0 @. @ 4 % and 2 @. @ 3 % , while the rate of slippage is between 0 @. @ 6 % and 1 @. @ 3 % . Even if no breakage or slippage is observed , 1 ? 3 % of women will test positive for semen residue after intercourse with a condom .

" Double bagging " , using two condoms at once , is often believed to cause a higher rate of failure due to the friction of rubber on rubber . This claim is not supported by research . The limited studies that have been done on the subject support that double bagging is likely not harmful and possibly beneficial .

Different modes of condom failure result in different levels of semen exposure . If a failure occurs during application , the damaged condom may be disposed of and a new condom applied before intercourse begins ? such failures generally pose no risk to the user . One study found that semen exposure from a broken condom was about half that of unprotected intercourse ; semen exposure from a slipped condom was about one @- @ fifth that of unprotected intercourse .

Standard condoms will fit almost any penis , with varying degrees of comfort or risk of slippage . Many condom manufacturers offer " snug " or " magnum " sizes . Some manufacturers also offer custom sized @- @ to @- @ fit condoms , with claims that they are more reliable and offer improved sensation / comfort . Some studies have associated larger penises and smaller condoms with increased breakage and decreased slippage rates (and vice versa) , but other studies have been inconclusive .

It is recommended for condoms manufacturers to avoid very thick or very thin condoms , because they are both considered less effective . Some authors encourage users to choose thinner condoms " for greater durability , sensation , and comfort " , but others warn that " the thinner the condom , the smaller the force required to break it " .

Experienced condom users are significantly less likely to have a condom slip or break compared to first @- @ time users , although users who experience one slippage or breakage are more likely to suffer a second such failure . An article in Population Reports suggests that education on condom use reduces behaviors that increase the risk of breakage and slippage . A Family Health International publication also offers the view that education can reduce the risk of breakage and slippage , but emphasizes that more research needs to be done to determine all of the causes of breakage and slippage .

Among people who intend condoms to be their form of birth control , pregnancy may occur when the user has sex without a condom . The person may have run out of condoms , or be traveling and not have a condom with them , or simply dislike the feel of condoms and decide to " take a chance " . This type of behavior is the primary cause of typical use failure (as opposed to method or perfect use failure) .

Another possible cause of condom failure is sabotage . One motive is to have a child against a partner 's wishes or consent . Some commercial sex workers from Nigeria reported clients sabotaging condoms in retaliation for being coerced into condom use . Using a fine needle to make

several pinholes at the tip of the condom is believed to significantly impact their effectiveness . Cases of such condom sabotage have occurred .

= = Adverse effects = =

The use of latex condoms by people with an allergy to latex can cause allergic symptoms , such as skin irritation . In people with severe latex allergies , using a latex condom can potentially be life @-@ threatening . Repeated use of latex condoms can also cause the development of a latex allergy in some people .

= = Use = =

Male condoms are usually packaged inside a foil or plastic wrapper , in a rolled @-@ up form , and are designed to be applied to the tip of the penis and then unrolled over the erect penis . It is important that some space be left in the tip of the condom so that semen has a place to collect ; otherwise it may be forced out of the base of the device . After use , it is recommended the condom be wrapped in tissue or tied in a knot , then disposed of in a trash receptacle . Condoms are used to reduce the likelihood of pregnancy during intercourse and to reduce the likelihood of contracting sexually @-@ transmitted infections (STIs) . Condoms are also used during fellatio to reduce the likelihood of contracting STIs .

Some couples find that putting on a condom interrupts sex , although others incorporate condom application as part of their foreplay . Some men and women find the physical barrier of a condom dulls sensation . Advantages of dulled sensation can include prolonged erection and delayed ejaculation ; disadvantages might include a loss of some sexual excitement . Advocates of condom use also cite their advantages of being inexpensive , easy to use , and having few side effects .

= = = Adult film industry = = =

In 2012 proponents gathered 372 @,@ 000 voter signatures through a citizens ' initiative in Los Angeles County to put Measure B on the 2012 ballot . As a result , Measure B , a law requiring the use of condoms in the production of pornographic films , was passed . This requirement has received much criticism and is said by some to be counter @-@ productive , merely forcing companies that make pornographic films to relocate to other places without this requirement . Producers claim that condom use depresses sales .

= = = Sex education = = =

Condoms are often used in sex education programs , because they have the capability to reduce the chances of pregnancy and the spread of some sexually transmitted diseases when used correctly . A recent American Psychological Association (APA) press release supported the inclusion of information about condoms in sex education , saying " comprehensive sexuality education programs ... discuss the appropriate use of condoms " , and " promote condom use for those who are sexually active . "

In the United States , teaching about condoms in public schools is opposed by some religious organizations . Planned Parenthood , which advocates family planning and sex education , argues that no studies have shown abstinence @-@ only programs to result in delayed intercourse , and cites surveys showing that 76 % of American parents want their children to receive comprehensive sexuality education including condom use .

= = = Infertility treatment = = =

Common procedures in infertility treatment such as semen analysis and intrauterine insemination (IUI) require collection of semen samples . These are most commonly obtained through

masturbation , but an alternative to masturbation is use of a special collection condom to collect semen during sexual intercourse .

Collection condoms are made from silicone or polyurethane , as latex is somewhat harmful to sperm . Many men prefer collection condoms to masturbation , and some religions prohibit masturbation entirely . Also , compared with samples obtained from masturbation , semen samples from collection condoms have higher total sperm counts , sperm motility , and percentage of sperm with normal morphology . For this reason , they are believed to give more accurate results when used for semen analysis , and to improve the chances of pregnancy when used in procedures such as intracervical or intrauterine insemination . Adherents of religions that prohibit contraception , such as Catholicism , may use collection condoms with holes pricked in them .

For fertility treatments , a collection condom may be used to collect semen during sexual intercourse where the semen is provided by the woman 's partner . Private sperm donors may also use a collection condom to obtain samples through masturbation or by sexual intercourse with a partner and will transfer the ejaculate from the collection condom to a specially designed container . The sperm is transported in such containers , in the case of a donor , to a recipient woman to be used for insemination , and in the case of a woman 's partner , to a fertility clinic for processing and use . However , transportation may reduce the fecundity of the sperm . Collection condoms may also be used where semen is produced at a sperm bank or fertility clinic .

Condom therapy is sometimes prescribed to infertile couples when the female has high levels of antisperm antibodies . The theory is that preventing exposure to her partner 's semen will lower her level of antisperm antibodies , and thus increase her chances of pregnancy when condom therapy is discontinued . However , condom therapy has not been shown to increase subsequent pregnancy rates .

= = = Other uses = = =

Condoms excel as multipurpose containers and barriers because they are waterproof , elastic , durable , and (for military and espionage uses) will not arouse suspicion if found .

Ongoing military utilization began during World War II , and includes covering the muzzles of rifle barrels to prevent fouling , the waterproofing of firing assemblies in underwater demolitions , and storage of corrosive materials and garrotes by paramilitary agencies .

Condoms have also been used to smuggle alcohol , cocaine , heroin , and other drugs across borders and into prisons by filling the condom with drugs , tying it in a knot and then either swallowing it or inserting it into the rectum . These methods are very dangerous and potentially lethal ; if the condom breaks , the drugs inside become absorbed into the bloodstream and can cause an overdose .

Medically , condoms can be used to cover endovaginal ultrasound probes , or in field chest needle decompressions they can be used to make a one @-@ way valve .

Condoms have also been used to protect scientific samples from the environment , and to waterproof microphones for underwater recording .

= = Types = =

Most condoms have a reservoir tip or teat end , making it easier to accommodate the man 's ejaculate . Condoms come in different sizes , from oversized to snug and they also come in a variety of surfaces intended to stimulate the user 's partner . Condoms are usually supplied with a lubricant coating to facilitate penetration , while flavored condoms are principally used for oral sex . As mentioned above , most condoms are made of latex , but polyurethane and lambskin condoms also exist .

= = = Female condom = = =

Male condoms have a tight ring to form a seal around the penis while female condoms typically

have a large stiff ring to keep them from slipping into the body orifice . The Female Health Company produced a female condom that was initially made of polyurethane , but newer versions are made of nitrile . Medtech Products produces a female condom made of latex .

== Materials ==

=== Natural latex ===

Latex has outstanding elastic properties : Its tensile strength exceeds 30 MPa , and latex condoms may be stretched in excess of 800 % before breaking . In 1990 the ISO set standards for condom production (ISO 4074 , Natural latex rubber condoms) , and the EU followed suit with its CEN standard (Directive 93 / 42 / EEC concerning medical devices) . Every latex condom is tested for holes with an electric current . If the condom passes , it is rolled and packaged . In addition , a portion of each batch of condoms is subject to water leak and air burst testing .

While the advantages of latex have made it the most popular condom material , it does have some drawbacks . Latex condoms are damaged when used with oil @-@ based substances as lubricants , such as petroleum jelly , cooking oil , baby oil , mineral oil , skin lotions , suntan lotions , cold creams , butter or margarine . Contact with oil makes latex condoms more likely to break or slip off due to loss of elasticity caused by the oils . Additionally , latex allergy precludes use of latex condoms and is one of the principal reasons for the use of other materials . In May 2009 the U.S. Food and Drug Administration granted approval for the production of condoms composed of Vytex , latex that has been treated to remove 90 % of the proteins responsible for allergic reactions . An allergen @-@ free condom made of synthetic latex (polyisoprene) is also available .

=== Synthetic ===

The most common non @-@ latex condoms are made from polyurethane . Condoms may also be made from other synthetic materials , such as AT @-@ 10 resin , and most recently polyisoprene .

Polyurethane condoms tend to be the same width and thickness as latex condoms , with most polyurethane condoms between 0 @. @ 04 mm and 0 @. @ 07 mm thick .

Polyurethane can be considered better than latex in several ways : it conducts heat better than latex , is not as sensitive to temperature and ultraviolet light (and so has less rigid storage requirements and a longer shelf life) , can be used with oil @-@ based lubricants , is less allergenic than latex , and does not have an odor . Polyurethane condoms have gained FDA approval for sale in the United States as an effective method of contraception and HIV prevention , and under laboratory conditions have been shown to be just as effective as latex for these purposes .

However , polyurethane condoms are less elastic than latex ones , and may be more likely to slip or break than latex , lose their shape or bunch up more than latex , and are more expensive .

Polyisoprene is a synthetic version of natural rubber latex . While significantly more expensive , it has the advantages of latex (such as being softer and more elastic than polyurethane condoms) without the protein which is responsible for latex allergies . Like polyurethane condoms , polyisoprene condoms are said to do a better job of transmitting body heat . Unlike polyurethane condoms , they cannot be used with an oil @-@ based lubricant .

=== Lambskin ===

Condoms made from sheep intestines , labeled " lambskin " , are also available . Although they are generally effective as a contraceptive by blocking sperm , it is presumed that they are likely less effective than latex in preventing the transmission of agents that cause STDs , because of pores in the material . This is based on the idea that intestines , by their nature , are porous , permeable membranes , and while sperm are too large to pass through the pores , viruses ? such as HIV , herpes , and genital warts ? are small enough to pass through . However , there are to date no

clinical data confirming or denying this theory . Some believe that lambskin condoms provide a more " natural " sensation , and they lack the allergens that are inherent to latex , but because of their lesser protection against infection , other hypoallergenic materials such as polyurethane are recommended for latex @-@ allergic users and / or partners . Lambskin condoms are also significantly more expensive than other types and as slaughter by @-@ products they are also not vegetarian .

== = Spermicide == =

Some latex condoms are lubricated at the manufacturer with a small amount of a nonoxynol @-@ 9 , a spermicidal chemical . According to Consumer Reports , condoms lubricated with spermicide have no additional benefit in preventing pregnancy , have a shorter shelf life , and may cause urinary @-@ tract infections in women . In contrast , application of separately packaged spermicide is believed to increase the contraceptive efficacy of condoms .

Nonoxynol @-@ 9 was once believed to offer additional protection against STDs (including HIV) but recent studies have shown that , with frequent use , nonoxynol @-@ 9 may increase the risk of HIV transmission . The World Health Organization says that spermicidally lubricated condoms should no longer be promoted . However , it recommends using a nonoxynol @-@ 9 lubricated condom over no condom at all . As of 2005 , nine condom manufacturers have stopped manufacturing condoms with nonoxynol @-@ 9 and Planned Parenthood has discontinued the distribution of condoms so lubricated .

== = Ribbed and studded == =

Textured condoms include studded and ribbed condoms which can provide extra sensations to both partners . The studs or ribs can be located on the inside , outside , or both ; alternatively , they are located in specific sections to provide directed stimulation to either the g @-@ spot or frenulum . Many textured condoms which advertise " mutual pleasure " also are bulb @-@ shaped at the top , to provide extra stimulation to the penis . Some women experience irritation during vaginal intercourse with studded condoms .

== = Youth condoms == =

In March 2010 , the Swiss government announced that it was planning to promote smaller condoms intended for boys and youths of 12 ? 14 years old following concern about the pregnancy rate among adolescent girls , and also about the potential spread of AIDS among this age group . This was due to the fact that standard condoms were too wide and consequently failed to afford protection to adolescent boys during vaginal and anal intercourse . Family planning groups and the Swiss AIDS Federation had campaigned to have a narrower condom produced for youths after a number of studies , including a government study researched at the Centre for Development and Personality Psychology at Basel University , found that standard condoms were unsuitable for boys in this age range , and that the condoms either failed during use or that the boys rejected them altogether because they were too wide , and consequently they used no protection at all .

As a result of these studies , a condom aimed at 12- to 14 @-@ year @-@ old boys is now produced and is available in Switzerland and in certain other countries . Manufactured by Ceylor , the " Hotshot " is a lubricated , teat @-@ ended latex condom which is narrower than a standard condom and has a tight band at the opening to ensure that it remains on the youth 's penis during intercourse . A standard condom has a diameter of 2 inches (5 @.@ 2 cm) whereas the Hotshot has a diameter of 1 @.@ 7 inches (4 @.@ 5 cm) . Both are the same length ? 7 @.@ 4 inches (19 cm) . In 2014 , in response to demand for condoms from a younger age @-@ group , German condom manufacturer Amor started producing another condom aimed at young people . Known as " Amor Young Love " , these lubricated condoms have a diameter of 1 @.@ 9 inches (4 @.@ 9 cm) .

== Other ==

The anti @-@ rape condom is another variation designed to be worn by women . It is designed to cause pain to the attacker , hopefully allowing the victim a chance to escape .

A collection condom is used to collect semen for fertility treatments or sperm analysis . These condoms are designed to maximize sperm life .

Some condom @-@ like devices are intended for entertainment only , such as glow @-@ in @-@ the dark condoms . These novelty condoms may not provide protection against pregnancy and STDs .

== Prevalence ==

The prevalence of condom use varies greatly between countries . Most surveys of contraceptive use are among married women , or women in informal unions . Japan has the highest rate of condom usage in the world : in that country , condoms account for almost 80 % of contraceptive use by married women . On average , in developed countries , condoms are the most popular method of birth control : 28 % of married contraceptive users rely on condoms . In the average less @-@ developed country , condoms are less common : only 6 ? 8 % of married contraceptive users choose condoms .

== History ==

== Before the 19th century ==

Whether condoms were used in ancient civilizations is debated by archaeologists and historians . In ancient Egypt , Greece , and Rome , pregnancy prevention was generally seen as a woman 's responsibility , and the only well documented contraception methods were female @-@ controlled devices . In Asia before the 15th century , some use of glans condoms (devices covering only the head of the penis) is recorded . Condoms seem to have been used for contraception , and to have been known only by members of the upper classes . In China , glans condoms may have been made of oiled silk paper , or of lamb intestines . In Japan , they were made of tortoise shell or animal horn .

In 16th century Italy , Gabriele Falloppio wrote a treatise on syphilis . The earliest documented strain of syphilis , first appearing in Europe in a 1490s outbreak , caused severe symptoms and often death within a few months of contracting the disease . Falloppio 's treatise is the earliest uncontested description of condom use : it describes linen sheaths soaked in a chemical solution and allowed to dry before use . The cloths he described were sized to cover the glans of the penis , and were held on with a ribbon . Falloppio claimed that an experimental trial of the linen sheath demonstrated protection against syphilis .

After this , the use of penis coverings to protect from disease is described in a wide variety of literature throughout Europe . The first indication that these devices were used for birth control , rather than disease prevention , is the 1605 theological publication *De iustitia et iure* (On justice and law) by Catholic theologian Leonardus Lessius , who condemned them as immoral . In 1666 , the English Birth Rate Commission attributed a recent downward fertility rate to use of " condoms " , the first documented use of that word (or any similar spelling) .

In addition to linen , condoms during the Renaissance were made out of intestines and bladder . In the late 16th century , Dutch traders introduced condoms made from " fine leather " to Japan . Unlike the horn condoms used previously , these leather condoms covered the entire penis .

Casanova in the 18th century was one of the first reported using " assurance caps " to prevent impregnating his mistresses .

From at least the 18th century , condom use was opposed in some legal , religious , and medical

circles for essentially the same reasons that are given today : condoms reduce the likelihood of pregnancy , which some thought immoral or undesirable for the nation ; they do not provide full protection against sexually transmitted infections , while belief in their protective powers was thought to encourage sexual promiscuity ; and , they are not used consistently due to inconvenience , expense , or loss of sensation .

Despite some opposition , the condom market grew rapidly . In the 18th century , condoms were available in a variety of qualities and sizes , made from either linen treated with chemicals , or " skin " (bladder or intestine softened by treatment with sulfur and lye) . They were sold at pubs , barbershops , chemist shops , open @-@ air markets , and at the theater throughout Europe and Russia . They later spread to America , although in every place there were generally used only by the middle and upper classes , due to both expense and lack of sex education .

= = = 1800 through 1920s = = =

The early 19th century saw contraceptives promoted to the poorer classes for the first time . Writers on contraception tended to prefer other methods of birth control to the condom . By the late 19th century many feminists expressed distrust of the condom as a contraceptive , as its use was controlled and decided upon by men alone . They advocated instead for methods which were controlled by women , such as diaphragms and spermicidal douches . Other writers cited both the expense of condoms and their unreliability (they were often riddled with holes , and often fell off or broke) , but they discussed condoms as a good option for some , and as the only contraceptive that also protected from disease .

Many countries passed laws impeding the manufacture and promotion of contraceptives . In spite of these restrictions , condoms were promoted by traveling lecturers and in newspaper advertisements , using euphemisms in places where such ads were illegal . Instructions on how to make condoms at home were distributed in the United States and Europe . Despite social and legal opposition , at the end of the 19th century the condom was the Western world 's most popular birth control method .

Beginning in the second half of the 19th century , American rates of sexually transmitted diseases skyrocketed . Causes cited by historians include effects of the American Civil War , and the ignorance of prevention methods promoted by the Comstock laws . To fight the growing epidemic , sex education classes were introduced to public schools for the first time , teaching about venereal diseases and how they were transmitted . They generally taught that abstinence was the only way to avoid sexually transmitted diseases . Condoms were not promoted for disease prevention because the medical community and moral watchdogs considered STDs to be punishment for sexual misbehavior . The stigma against victims of these diseases was so great that many hospitals refused to treat people who had syphilis .

The German military was the first to promote condom use among its soldiers , beginning in the later 19th century . Early 20th century experiments by the American military concluded that providing condoms to soldiers significantly lowered rates of sexually transmitted diseases . During World War I , the United States and (at the beginning of the war only) Britain were the only countries with soldiers in Europe who did not provide condoms and promote their use .

In the decades after World War I , there remained social and legal obstacles to condom use throughout the U.S. and Europe . Founder of psychoanalysis Sigmund Freud opposed all methods of birth control on the grounds that their failure rates were too high . Freud was especially opposed to the condom because he thought it cut down on sexual pleasure . Some feminists continued to oppose male @-@ controlled contraceptives such as condoms . In 1920 the Church of England 's Lambeth Conference condemned all " unnatural means of conception avoidance " . London 's Bishop Arthur Winnington @-@ Ingram complained of the huge number of condoms discarded in alleyways and parks , especially after weekends and holidays .

However , European militaries continued to provide condoms to their members for disease protection , even in countries where they were illegal for the general population . Through the 1920s , catchy names and slick packaging became an increasingly important marketing technique for many consumer items , including condoms and cigarettes . Quality testing became more common ,

involving filling each condom with air followed by one of several methods intended to detect loss of pressure . Worldwide , condom sales doubled in the 1920s .

= = = Rubber and manufacturing advances = = =

In 1839 , Charles Goodyear discovered a way of processing natural rubber , which is too stiff when cold and too soft when warm , in such a way as to make it elastic . This proved to have advantages for the manufacture of condoms ; unlike the sheep 's gut condoms , they could stretch and did not tear quickly when used . The rubber vulcanization process was patented by Goodyear in 1844 . The first rubber condom was produced in 1855 . The earliest rubber condoms had a seam and were as thick as a bicycle inner tube . Besides this type , small rubber condoms covering only the glans were often used in England and the United States . There was more risk of losing them and if the rubber ring was too tight , it would constrict the penis . This type of condom was the original " capote " (French for condom) , perhaps because of its resemblance to a woman 's bonnet worn at that time , also called a capote .

For many decades , rubber condoms were manufactured by wrapping strips of raw rubber around penis @-@ shaped molds , then dipping the wrapped molds in a chemical solution to cure the rubber . In 1912 , Polish inventor Julius Fromm developed a new , improved manufacturing technique for condoms : dipping glass molds into a raw rubber solution . Called cement dipping , this method required adding gasoline or benzene to the rubber to make it liquid . Latex , rubber suspended in water , was invented in 1920 . Latex condoms required less labor to produce than cement @-@ dipped rubber condoms , which had to be smoothed by rubbing and trimming . The use of water to suspend the rubber instead of gasoline and benzene eliminated the fire hazard previously associated with all condom factories . Latex condoms also performed better for the consumer : they were stronger and thinner than rubber condoms , and had a shelf life of five years (compared to three months for rubber) .

Until the twenties , all condoms were individually hand @-@ dipped by semi @-@ skilled workers . Throughout the decade of the 1920s , advances in the automation of the condom assembly line were made . The first fully automated line was patented in 1930 . Major condom manufacturers bought or leased conveyor systems , and small manufacturers were driven out of business . The skin condom , now significantly more expensive than the latex variety , became restricted to a niche high @-@ end market .

= = = 1930 to present = = =

In 1930 the Anglican Church 's Lambeth Conference sanctioned the use of birth control by married couples . In 1931 the Federal Council of Churches in the U.S. issued a similar statement . The Roman Catholic Church responded by issuing the encyclical Casti connubii affirming its opposition to all contraceptives , a stance it has never reversed .

In the 1930s , legal restrictions on condoms began to be relaxed . But during this period Fascist Italy and Nazi Germany increased restrictions on condoms (limited sales as disease preventatives were still allowed) . During the Depression , condom lines by Schmid gained in popularity . Schmid still used the cement @-@ dipping method of manufacture which had two advantages over the latex variety . Firstly , cement @-@ dipped condoms could be safely used with oil @-@ based lubricants . Secondly , while less comfortable , these older @-@ style rubber condoms could be reused and so were more economical , a valued feature in hard times . More attention was brought to quality issues in the 1930s , and the U.S. Food and Drug Administration began to regulate the quality of condoms sold in the United States .

Throughout World War II , condoms were not only distributed to male U.S. military members , but also heavily promoted with films , posters , and lectures . European and Asian militaries on both sides of the conflict also provided condoms to their troops throughout the war , even Germany which outlawed all civilian use of condoms in 1941 . In part because condoms were readily available , soldiers found a number of non @-@ sexual uses for the devices , many of which continue to this

day .

After the war , condom sales continued to grow . From 1955 ? 1965 , 42 % of Americans of reproductive age relied on condoms for birth control . In Britain from 1950 ? 1960 , 60 % of married couples used condoms . The birth control pill became the world 's most popular method of birth control in the years after its 1960 début , but condoms remained a strong second . The U.S. Agency for International Development pushed condom use in developing countries to help solve the " world population crises " : by 1970 hundreds of millions of condoms were being used each year in India alone . (This number has grown in recent decades : in 2004 , the government of India purchased 1 @. @ 9 billion condoms for distribution at family planning clinics .)

In the 1960s and 1970s quality regulations tightened , and more legal barriers to condom use were removed . In Ireland , legal condom sales were allowed for the first time in 1978 . Advertising , however was one area that continued to have legal restrictions . In the late 1950s , the American National Association of Broadcasters banned condom advertisements from national television : this policy remained in place until 1979 .

After learning in the early 1980s that AIDS can be a sexually transmitted infection , the use of condoms was encouraged to prevent transmission of HIV . Despite opposition by some political , religious , and other figures , national condom promotion campaigns occurred in the U.S. and Europe . These campaigns increased condom use significantly .

Due to increased demand and greater social acceptance , condoms began to be sold in a wider variety of retail outlets , including in supermarkets and in discount department stores such as Wal @- @ Mart . Condom sales increased every year until 1994 , when media attention to the AIDS pandemic began to decline . The phenomenon of decreasing use of condoms as disease preventatives has been called prevention fatigue or condom fatigue . Observers have cited condom fatigue in both Europe and North America . As one response , manufacturers have changed the tone of their advertisements from scary to humorous .

New developments continued to occur in the condom market , with the first polyurethane condom ? branded Avanti and produced by the manufacturer of Durex ? introduced in the 1990s , and the first custom sized @- @ to @- @ fit condom , called TheyFit , introduced in the early 2000s .

Worldwide condom use is expected to continue to grow : one study predicted that developing nations would need 18 @. @ 6 billion condoms by 2015 . As of September 2013 , condoms are available inside prisons in Canada , most of the European Union , Australia , Brazil , Indonesia , South Africa , and the US states of Vermont (on September 17 , 2013 , the Californian Senate approved a bill for condom distribution inside the state 's prisons , but the bill was not yet law at the time of approval) .

= = = Etymology and other terms = = =

The term condom first appears in the early 18th century . Its etymology is unknown . In popular tradition , the invention and naming of the condom came to be attributed to an associate of England 's King Charles II , one " Dr. Condom " or " Earl of Condom " . There is however no evidence of the existence of such a person , and condoms had been used for over one hundred years before King Charles II ascended to the throne .

A variety of unproven Latin etymologies have been proposed , including condon (receptacle) , condamina (house) , and cumdum (scabbard or case) . It has also been speculated to be from the Italian word quantone , derived from quanto , meaning glove . William E. Kruck wrote an article in 1981 concluding that , " As for the word ' condom ' , I need state only that its origin remains completely unknown , and there ends this search for an etymology . " Modern dictionaries may also list the etymology as " unknown " .

Other terms are also commonly used to describe condoms . In North America condoms are also commonly known as prophylactics , or rubbers . In Britain they may be called French letters . Additionally , condoms may be referred to using the manufacturer 's name .

= = Society and culture = =

Some moral and scientific criticism of condoms exists despite the many benefits of condoms agreed on by scientific consensus and sexual health experts .

Condom usage is typically recommended for new couples who have yet to develop full trust in their partner with regard to STDs . Established couples on the other hand have few concerns about STDs , and can use other methods of birth control such as the pill , which does not act as a barrier to intimate sexual contact . Note that the polar debate with regard to condom usage is attenuated by the target group the argument is directed . Notably the age category and stable partner question are factors , as well as the distinction between heterosexual and homosexuals , who have different kinds of sex and have different risk consequences and factors .

Among the prime objections to condom usage is the blocking of erotic sensation , and / or the intimacy that barrier @-@ free sex provides . As the condom is held tightly to the skin of the penis , it diminishes the delivery of stimulation through rubbing and friction . Condom proponents claim this has the benefit of making sex last longer , by diminishing sensation and delaying male ejaculation . Those who promote condom @-@ free heterosexual sex (slang : " bareback ") claim that the condom puts a prophylactic barrier between partners , diminishing what is normally a highly sensual , intimate , and spiritual connection between partners .

= = = Religious = = =

Roman Catholic Church opposes all kinds of sexual acts outside of marriage , as well as any sexual act in which the chance of successful conception has been reduced by direct and intentional acts (for example , surgery to prevent conception) or foreign objects (for example , condoms) .

The use of condoms to prevent STD transmission is not specifically addressed by Catholic doctrine , and is currently a topic of debate among theologians and high @-@ ranking Catholic authorities . A few , such as Belgian Cardinal Godfried Danneels , believe the Catholic Church should actively support condoms used to prevent disease , especially serious diseases such as AIDS . However , the majority view ? including all statements from the Vatican ? is that condom @-@ promotion programs encourage promiscuity , thereby actually increasing STD transmission . This view was most recently reiterated in 2009 by Pope Benedict XVI .

The Roman Catholic Church is the largest organized body of any world religion . The church has hundreds of programs dedicated to fighting the AIDS epidemic in Africa , but its opposition to condom use in these programs has been highly controversial .

In a November 2011 interview , the Pope discussed for the first time the use of condoms to prevent STD transmission . He said that the use of a condom can be justified in a few individual cases if the purpose is to reduce the risk of an HIV infection . He gave as an example male prostitutes . There was some confusion at first whether the statement applied only to homosexual prostitutes and thus not to heterosexual intercourse at all . However , Federico Lombardi , spokesman for the Vatican , clarified that it applied to heterosexual and transsexual prostitutes , whether male or female , as well . He did , however , also clarify that the Vatican 's principles on sexuality and contraception had not been changed .

= = = Scientific and environmental = = =

More generally , some scientific researchers have expressed objective concern over certain ingredients sometimes added to condoms , notably talc and nitrosamines . Dry dusting powders are applied to latex condoms before packaging to prevent the condom from sticking to itself when rolled up . Previously , talc was used by most manufacturers , but cornstarch is currently the most popular dusting powder . Talc is known to be toxic if it enters the abdominal cavity (i.e. , via the vagina) . Cornstarch is generally believed to be safe ; however , some researchers have raised concerns over its use as well .

Nitrosamines , which are potentially carcinogenic in humans , are believed to be present in a substance used to improve elasticity in latex condoms . A 2001 review stated that humans regularly

receive 1 @, @ 000 to 10 @, @ 000 times greater nitrosamine exposure from food and tobacco than from condom use and concluded that the risk of cancer from condom use is very low . However , a 2004 study in Germany detected nitrosamines in 29 out of 32 condom brands tested , and concluded that exposure from condoms might exceed the exposure from food by 1.5- to 3 @-@ fold .

In addition , the large @-@ scale use of disposable condoms has resulted in concerns over their environmental impact via littering and in landfills , where they can eventually wind up in wildlife environments if not incinerated or otherwise permanently disposed of first . Polyurethane condoms in particular , given they are a form of plastic , are not biodegradable , and latex condoms take a very long time to break down . Experts , such as AVERT , recommend condoms be disposed of in a garbage receptacle , as flushing them down the toilet (which some people do) may cause plumbing blockages and other problems . Furthermore , the plastic and foil wrappers condoms are packaged in are also not biodegradable . However , the benefits condoms offer are widely considered to offset their small landfill mass . Frequent condom or wrapper disposal in public areas such as a parks have been seen as a persistent litter problem .

While biodegradable , latex condoms damage the environment when disposed of improperly . According to the Ocean Conservancy , condoms , along with certain other types of trash , cover the coral reefs and smother sea grass and other bottom dwellers . The United States Environmental Protection Agency also has expressed concerns that many animals might mistake the litter for food .

= = = Cultural barriers to use = = =

In much of the Western world , the introduction of the pill in the 1960s was associated with a decline in condom use . In Japan , oral contraceptives were not approved for use until September 1999 , and even then access was more restricted than in other industrialized nations . Perhaps because of this restricted access to hormonal contraception , Japan has the highest rate of condom usage in the world : in 2008 , 80 % of contraceptive users relied on condoms .

Cultural attitudes toward gender roles , contraception , and sexual activity vary greatly around the world , and range from extremely conservative to extremely liberal . But in places where condoms are misunderstood , mischaracterised , demonised , or looked upon with overall cultural disapproval , the prevalence of condom use is directly affected . In less @-@ developed countries and among less @-@ educated populations , misperceptions about how disease transmission and conception work negatively affect the use of condoms ; additionally , in cultures with more traditional gender roles , women may feel uncomfortable demanding that their partners use condoms .

As an example , Latino immigrants in the United States often face cultural barriers to condom use . A study on female HIV prevention published in the Journal of Sex Health Research asserts that Latino women often lack the attitudes needed to negotiate safe sex due to traditional gender @-@ role norms in the Latino community , and may be afraid to bring up the subject of condom use with their partners . Women who participated in the study often reported that because of the general machismo subtly encouraged in Latino culture , their male partners would be angry or possibly violent at the woman 's suggestion that they use condoms . A similar phenomenon has been noted in a survey of low @-@ income American black women ; the women in this study also reported a fear of violence at the suggestion to their male partners that condoms be used .

A telephone survey conducted by Rand Corporation and Oregon State University , and published in the Journal of Acquired Immune Deficiency Syndromes showed that belief in AIDS conspiracy theories among United States black men is linked to rates of condom use . As conspiracy beliefs about AIDS grow in a given sector of these black men , consistent condom use drops in that same sector . Female use of condoms was not similarly affected .

In the African continent , condom promotion in some areas has been impeded by anti @-@ condom campaigns by some Muslim and Catholic clerics . Among the Maasai in Tanzania , condom use is hampered by an aversion to " wasting " sperm , which is given sociocultural importance beyond reproduction . Sperm is believed to be an " elixir " to women and to have beneficial health effects .

Maasai women believe that , after conceiving a child , they must have sexual intercourse repeatedly so that the additional sperm aids the child 's development . Frequent condom use is also considered by some Maasai to cause impotence . Some women in Africa believe that condoms are " for prostitutes " and that respectable women should not use them . A few clerics even promote the idea that condoms are deliberately laced with HIV . In the United States , possession of many condoms has been used by police to accuse women of engaging in prostitution . The Presidential Advisory Council on HIV / AIDS has condemned this practice and there are efforts to end it .

In March 2013 , technology mogul Bill Gates offered a US \$ 100 @,@ 000 grant through his foundation for a condom design that " significantly preserves or enhances pleasure " to encourage more males to adopt the use of condoms for safer sex . The grant information states : ? The primary drawback from the male perspective is that condoms decrease pleasure as compared to no condom , creating a trade @-@ off that many men find unacceptable , particularly given that the decisions about use must be made just prior to intercourse . Is it possible to develop a product without this stigma , or better , one that is felt to enhance pleasure ? ? The project has been named the " Next Generation Condom " and anyone who can provide a " testable hypothesis " is eligible to apply .

Middle @-@ Eastern couples who have not had children , because of the strong desire and social pressure to establish fertility as soon as possible within marriage , rarely use condoms .

= = = Major manufacturers = = =

One analyst described the size of the condom market as something that " boggles the mind " . Numerous small manufacturers , nonprofit groups , and government @-@ run manufacturing plants exist around the world . Within the condom market , there are several major contributors , among them both for @-@ profit businesses and philanthropic organizations . Most large manufacturers have ties to the business that reach back to the end of the 19th century .

= = Research = =

A spray @-@ on condom made of latex is intended to be easier to apply and more successful in preventing the transmission of diseases . As of 2009 , the spray @-@ on condom was not going to market because the drying time could not be reduced below two to three minutes .

The Invisible Condom , developed at Université Laval in Québec , Canada , is a gel that hardens upon increased temperature after insertion into the vagina or rectum . In the lab , it has been shown to effectively block HIV and herpes simplex virus . The barrier breaks down and liquefies after several hours . As of 2005 , the invisible condom is in the clinical trial phase , and has not yet been approved for use .

Also developed in 2005 is a condom treated with an erectogenic compound . The drug @-@ treated condom is intended to help the wearer maintain his erection , which should also help reduce slippage . If approved , the condom would be marketed under the Durex brand . As of 2007 , it was still in clinical trials . In 2009 , Ansell Healthcare , the makers of Lifestyle condoms , introduced the X2 condom lubricated with " Excite Gel " which contains the amino acid l @-@ arginine and is intended to improve the strength of the erectile response .