## The history of the condom

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Condoms or sheaths are the oldest form of barrier contraception used by the male. It has been suggested that the Ancient Egyptians were among the first to wear them<sup>1</sup> (p 78) and even dye these sheaths in various colours<sup>2</sup>. However, there is no evidence for the use of a condom in Ancient Egypt (Martin and Bakir, personal communication). The Ancient Egyptians were keen on fertility and worshipped the God of reproduction Min. However, upper-class Egyptian women used crocodile dung pessaries and irrigated the vagina with honey and natron (sodium bicarbonate)<sup>3</sup> (p 17). These have been interpreted as contraceptives but they are alkaline and will promote sperm motility. Honey is bactericidal.

Various forms of penis protectors, not for contraceptive purposes were used in pre-historic times in order to protect a wearer during combat, or against insect bites, tropical disease, or evil spirits, or in assorted colours as badges of rank, or as charms to promote fertility, or as decorations<sup>4</sup> (p 186). "These sheaths are worn, even today by tribal people, as for example, the Dani Tribe people of Indonesia, most wearing nothing but penis guards<sup>5</sup>. They had their first contact with the outside world in the 1950s and still live in the remote mountains of Irian Jaya, Western New Guinea.

It is possible that a male or female sheath or both was used in Imperial Rome, but no evidence exists beyond a legend related by Antoninus Libralis (AD 150) in which goats' bladder served as a female sheath. Helbig first called attention to this myth in 1900 (*The legend of Minos, King of Crete*) in relation to the history of the condom<sup>4</sup> (p 187-8). The semen of the King contained serpents and scorpions. The bladder of a goat was used as a female sheath in a woman for Minos to cast off his serpent-bearing semen.

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Figure 1. Min, god of reproduction. (By courtesy of University College of London, Department of Egyptology)

Then he went and cohabited with his wife Pasiphae. In this manner she conceived.

The earliest description of the condom was by the great Italian anatomist Gabriello Fallopio in 1564, published 2 years after his death. He claimed to have invented a linen sheath, made to fit the glans and it was worn for protection against syphilis. He tried it on 1100 men, no more, no less – not one of them became infected. A similar device was described in 1597 by the medical writer Hercules Saxsonia<sup>1</sup> (pp 79-80). Most authorities have rejected the story of Dr Condom, a physician and Colonel to King Charles II (1660-1685) that he provided the King with means of preventing more illegitimate offspring.

The word condom first appeared in print in 1706 in a poem by Lord Belhaven, then in a book by Daniel Turner in 1717. Ferdy in 1904 proposed a French village of Condom as the source of the word, but a year later he suggested that the latin word condus was the origin. Richter in 1911 proposed a Persian 'Kendu' or 'Kondu' as the source of the word, which means a long storage vessel made from animal intestine<sup>4</sup> (p 191). However, Wm E Kruck of the University of North Carolina conducted research for the American Dialect Society and in 1981 concluded that the origin of the word is unknown, and is definitely not derived from latin. For the sake of completeness of his research he included the suggestion of the Playboy Magazine in 1972 in Chicago 'Conundrum! A riddle, difficult to put on'<sup>6</sup> (pp 14-18).

Norman Himes attributes the invention of the condom to a mediaeval slaughter house worker who either conceived the idea that covering the penis with thin membranes of an animal would protect against venereal disease or accidentally discovered it. Nobody will ever know<sup>4</sup> (p 191-4). Himes was the first to conclude after an extensive search for Doctor Condom, that he is probably a myth. He asked the help of a friend who was a philologist of an extraordinary calibre.

A landmark of medical history is found in 1655 in Paris in a play called *L'Escole de Filles*<sup>3</sup> (p 26) in which the first ever mention is made of using a preservative as a male contraceptive by Suzanne<sup>6</sup> (pp 11-12).

In 1671 in the letters of Mme de Sevigne (1626-1696) to her daughter the Countess of Grignan, she spoke of the sheath made of gold-beaters skin as 'armour against enjoyment, and a spider web against danger'. This was considered one of the most ubiquitous errors in the literature on the condom by Kruck in that this letter never existed. He emphasized the fact that everybody writes after a predecessor without actual research<sup>6</sup> (p 12).

Casanova (1725-1798) mentioned condoms several times in his exhaustive memoirs. However, he was not enthusiastic about them. He did not appreciate

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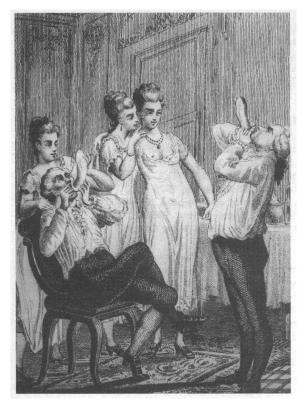


Figure 2. From Casanova's memoirs. (By courtesy of The British Library London)

the value of the condom until later in life<sup>7</sup>. He used to inflate condoms to amuse the ladies and test them for holes<sup>8</sup>.

J D Rollenton presented a paper "The medical interests of Casanova's memoirs' to a meeting of the Royal Society of Medicine but due to criticism of the chairman it was not published in the proceedings but published in the *BMJ* on 13 January 1917. It appeared that Casanova used the condom more frequently for contraceptive purposes than as protection against infection<sup>9</sup>. He provided more information than anybody else on the sizes and qualities of "The English Overcoat' as he used to call the condoms available for sale. One girl found condoms nasty, disgusting and scandalous. Another, although granting that they were very fine, complained that she did not like 'ce petit personnage' so much when it was covered<sup>3</sup> (p 30).

By the eighteenth century 'the condom', 'preservative machine', or 'armour' as it was variously described had achieved some popularity for its contraceptive as well as its prophylactic functions. It was widely praised in erotic poetry of the period and by famous physicians such as Turner in his book on syphilis<sup>1</sup> (p 81). In his Journal, Boswell tells how, on 10 May 1763, he picked up a strong, young, jolly damsel, led her to Westminster Bridge and there 'in armour, complete did I enjoy her upon this noble edifice'<sup>10</sup>.

From the mid eighteenth century there is evidence of a flourishing trade in London largely in the hands of Mrs Perkins and Mrs Philips whose advertisements gained a wide circulation. Mrs Philips in a hand bill dated 1796 boasted 35 years experience<sup>4</sup> (pp 197-200). Her name was mentioned in *The Classical Dictionary* of the Vulgar Tongue by Francis Grose Hooper (1785).

The Chinese utilized oiled silk paper, and the Japanese used to wear hard sheaths made of tortoiseshell, horn (kabutogata), or fine leather<sup>3</sup> (p 20). Their

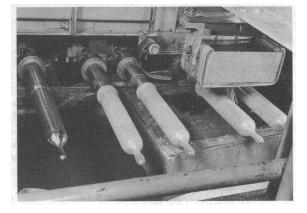


Figure 3. Testing condoms for holes by electric conductivity. (By courtesy of LRC Ltd)

wives put them on a stick and used them in their husbands' absence as a dildo<sup>1</sup> (pp 95-7).

The original condoms were made from animal intestine (caecum) of sheep, calves and goats. They are still produced and are known as skin condoms. They transmit sensation and body heat. Their disadvantages were the hand sewn seams in them, and in being relatively expensive<sup>11</sup>. The cheap production of condoms had to await the development of the vulcanization of rubber by Hancock and Goodyear in 1844 and from 1870 the device started to increase in popularity. The early crude models made from crepe rubber were gradually improved and seamless condoms were produced by the end of the century. The earliest teat-ended products which hold ejaculate appeared for sale in  $1901^{12}$ . The introduction of liquid latex in the mid 1930s made possible greater tensile strength and longer shelf life of 5 years instead of 3 months<sup>13</sup> (p 643).

During the Second World War condoms made of plastic appeared on the market. In the later 1960s polyurethane was used but due to high rupture rate, the research was discontinued<sup>14</sup>. The first coloured condom was introduced by a Japanese firm in 1949<sup>11</sup>. The first ever lubricated condom was introduced in the 1950s. In 1975 condoms lubricated with spermicidal became available in Britain<sup>13</sup> (p 644).

The condom is a reliable contraceptive. It is relatively inexpensive, light, compact and disposable, requires no medical examination, supervision or follow-up, has no side effects. It also offers physical post-coital evidence of effectiveness, provides protection against venereal disease and permits the male to share actively in planning his family<sup>15</sup>. The British Standard Institute allows an acceptable quality level of 0.05% for holes in condoms in continuous production<sup>16</sup>.

The pregnancy rate as measured strictly in terms of method failure is less than five pregnancies per 100 women years of exposure<sup>12</sup>. The Oxford Family Planning Association Study showed a pregnancy rate among women 35 years and older of 0.7 per 100 women years and among women 25-34 years 3.6 per 100 women years<sup>17</sup>.

Condoms are air tight and water tight and hence impermeable to micro-organisms. The smallest microorganism transmitting a sexually transmitted disease, the herpes virus has a diameter of 0.1  $\mu$ m, about 1000 times larger than air or water molecules<sup>13</sup> (p 644). For that reason and the spread of Acquired Immune Deficiency Syndrome (AIDS) the condom became an important preventive measure. The US Surgeon-General spoke about AIDS in 1987 and recommended the use of a condom from start to finish if the couple are not absolutely certain about their sexual history. A condom would not provide 100% protection - few things in life do - but so far it seems to be the best protection available<sup>18</sup>. The first evidence of heterosexual transmission of HIV was reported in 1983<sup>19</sup>.

Connant and his co-workers showed in vitro, that there is no evidence of passage of viral particles across the condom membranes<sup>20</sup>. The use of nonoxynol-9 containing jelly (sold over the counter as spermicide) may be a useful protective adjunct to condoms since this substance has been shown to inactivate HIV and kill lymphocytes<sup>21</sup>. The development of vaginal ultrasound probe created a new market for the use of the condom.

Lastly, the Roman legend may come true with the development of the female condom (Femshield). It combines the features of a male condom and a diaphragm. It consists of a soft loose polyurethane sheath, the open end of which is attached to a flexible polyurethane ring. It is a British product<sup>22</sup>. In the USA the vaginal linear is called Reality.

## References

- 1 Green S. The curious history of contraception. London: Ebury Press 1971:78
- 2 Tatum HJ, Connell-Tatum EB. Barrier contraception A comprehensive overview. *Fert Steril* 1981;**36**:1,3
- 3 Fryer P. The birth controllers. London: Seker & Warburg, 1965:17
- 4 Himes NE. Medical history of contraception. New York: St Martin Press, 1963
- 5 Rix J. Indonesia's lost tribe walks to an uncertain future. Observer 1 Oct 1989:12
- 6 Kruck Wm E. *Looking for Dr Condom*. Publication No. 66 of the American Dialect Society USA: University of Alabama Press, 1981

- 7 Casanova J. In: Rosez J (ed). Memoires de Jacques Casanova de Seingalt Tom quatrième Brussels. English translation. London: British Library, 1872:522
- 8 Anon. Casanova J Memoris, plates pc 13cc6 No. 60. London: The British Library
- 9 Rollenton JD. The medical interest of Casanova's memoirs. BMJ 1917;13:5-7 (Actual thesis. London: The British Library)
- 10 Boswell J. Boswell's London Journal 1762-1763. USA: Yale University/Heinemann, 1950:342
- 11 Dalsimer IA, Piottrow PT, Dumm JJ. Population report: barrier methods, Series H, No. 1, H2, Department of Medical and Public Affairs. USA: The George Washington University Medical Center, 1973
- 12 Peel J, Potts M. Textbook of contraceptive practice. Cambridge: Cambridge University Press, 1969:297
- 13 Mills A. Barrier contraception. Clinic Obstet Gynaecol 1984;11(3):643
- 14 Dumm JJ, Piottow PT, Dalsimer MA. Population report: barrier methods, Series H, No. 2, H31, Department of Medical and Public Affairs. USA: The George Washington University Medical Center, 1974
- 15 Tatum HJ, Conell-Tatum EH. Barrier contraception: a comprehensive overview. *Fertility Sterility* 1981;36(1):8
- 16 Mills A. AIDS and barriers. Proceeding of the nineteenth study group of the Royal College of Obstetricians and Gynaecologists. London: RCOG, 1988:928-9
- 17 Vessey M, Lawless M, Yeate D. Efficacy of different contraceptive methods. *Lancet* 1982;i:841-2
- 18 Koop CE. Surgeon-General speaks out on AIDS. Ill Med J 1987;171(6):377-8
- 19 Harris C, Small CB, Klein RS, Friedland GH, Moll B, Emerson EE, et al. Immuno-deficiency in female sexual partners of men with acquired immuno deficiency syndrome. New Engl Med J 1983;308:1181-4
- 20 Conant M, Hardy D, Sternatinger J, Spicer D, Levy JA. Condoms prevent transmission of AIDS associated retroviruses. JAMA 1986;255:1706
- 21 Riley AJ. Nonovynol 9 more than a spermicide? Br J Sex Med 1988;15:381-3
- 22 Riley AJ. The condom. Br J Sex Med 1989;16:246

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