

The Condom
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More than 100 million times today, human beings will have sex. For many millions of couples, this lovemaking will bring great pleasure; yet at least 350,000 people will catch a painful disease from their partners. Today's sex will also make one million women around the world pregnant-- about half of them unintentionally.

On this day, one simple object invented centuries ago will spare thousands, if not millions, of people from life-threatening diseases and unwanted pregnancies: the condom. Though not the most widely used method of contraception, the condom is the only one (short of abstinence) that effectively prevents the spread of diseases like chlamydia, gonorrhea, and AIDS. Perhaps one out of six of today's acts of sexual intercourse will involve a condom.

Though it often provokes humor or embarrassment, the lowly condom is widely appreciated for all the good it does. Primarily in response to the spread of AIDS, condom sales grew rapidly in the 1980s; Americans, for example, bought 450 million of the prophylactics in 1994. The U.S. Agency for International Development ships an even greater number overseas. Once sold mostly from behind pharmacy counters, condoms are today found in supermarkets, convenience stores, warehouse clubs, catalogs, and even at the drive-through Condom Hut in Cranston, Rhode Island. In much of the world, using condoms has become a norm of responsible sexuality.

The condom is a remarkable little device: weighing in at a fraction of an ounce, it simultaneously fights three of the most serious problems facing humans at the end of the twentieth century: sexually transmitted diseases (STDs), unwanted pregnancies, and population growth. Those are big jobs for a flimsy tube of rubber to accomplish.

AIDS is a global epidemic that now rivals history's worst. Despite the development of new drug treatments, the epidemic is far from over. In 1997, more than 2 million people died of AIDS, nearly 6 million were newly infected with the virus (HIV) that causes the disease; and 31 million people--including 1 out of 100 adults worldwide--lived with HIV or AIDS. In Latin America and the Caribbean, AIDS has overtaken traffic injuries as a cause of death. In a dozen African nations, at least 10 percent of adults are infected with the virus; in Botswana and Zimbabwe, a shocking one out of four adults is HIV-positive.

Even in North America, where health care is better and many AIDS victims can afford expensive antiviral

"drug cocktails," the disease remains a major killer. As of 1997, AIDS was still the leading cause of death in Americans 25 to 44 years old. AIDS was at least three times more common (per capita) in the United States than it was in Canada. In both nations, however, minority groups such as blacks, Hispanics, and indigenous people lack access to quality health care and contract the disease at much higher rates.

AIDS is only the tip of the condom, so to speak, of sexually transmitted disease. Unsafe sex is also spreading a range of curable but often deadly ailments (trichomonas, chlamydia, gonorrhea, and syphilis among them) to nearly 400 million victims, including 14 million North Americans each year. There are many ways STDs can kill. Because of the lesions and inflammation they cause, they greatly increase the odds of catching HIV during sex. They also lead to infertility, miscarriages, and stillbirths, as well as pneumonia in newborn infants. Today STDs are the world's leading cause of cervical cancer, and they can lead to fatal hemorrhages during childbirth.

Unwanted pregnancies fuel population growth and all the associated ecological harm, but their toll is heaviest among women themselves. One woman dies each minute because of complications during pregnancy, childbirth, or unsafe abortion. As Mahmoud Fathalla of the World Health Organization observes, "Without fertility regulation, women's rights are mere words. A woman who has no control over her fertility cannot complete her education, cannot maintain gainful employment ... and has very few real choices open to her."

The United States has a much higher rate of unintended pregnancy than most other developed nations--higher even than dozens of developing nations. More than half of all US pregnancies, and 44 percent of births, are either mistimed (too soon) or unwanted. In Canada, for comparison, 25 percent of births are unintended. Inadequate contraception is not just a Third World issue, as some people think. Especially since a baby born in North America will use roughly 25 times more resources over the course of its life than a baby born in the developing world, population growth is a problem here at home as well as overseas.

While the populations of many European nations are stable or shrinking slightly, the population of the United States has been expanding during the 1990s by 1 percent annually--the equivalent of adding a Kansas every year. Natural increase (births minus deaths) is responsible for two thirds of the growth, immigration the rest. Canada is also expanding by 1 percent annually--the equivalent of a Nova Scotia every three years--but with slightly less than half its growth due to natural increase. Immigration has local impacts but, of course, does not add to the total number of people on the Earth, now rising by 83 million people each year.

Contraceptive use has risen in recent years, and population growth has slowed, as women's social and economic status has improved in many nations. Yet contraceptives—especially condoms need to become much more widely used. By a rough estimate, lovers will employ condoms in only about half of today's 40 million or so acts of sexual intercourse worldwide that risk unwanted pregnancy or disease. A recent survey of Americans with multiple sex partners revealed that those who never use condoms, or use them inconsistently, outnumber those who always use them by 11 to 1. Canadian surveys suggest that as many as half of Canadians with multiple sex partners do not "dress appropriately" every time they have sex.

And contraceptives are far from universally available. Perhaps 500 million couples around the world wish to avoid or delay pregnancy but lack the means to do so. In the United States, federal funding for family-planning services fell by more than 70 percent from 1980 to 1992: The majority of U.S. women of childbearing age have private health insurance, but the only contraceptive covered by many private health plans is surgical sterilization. Similarly, many U.S. insurance companies will pay for Viagra to help a man have sex, but none pay for condoms to enable him to have sex safely.

For family-planning and reproductive health- services to be effective, they need to offer women and couples their choice among a variety of contraceptive methods. Condoms lack the side effects of birth-control pills and IUDs and the irreversibility of sterilization, but they have a higher failure rate than these other contraceptives. As many as one out of six women become pregnant during their first year of sex with condoms, but this high rate is due to sporadic-or improper-use. One out of five British men asked to put a condom on a model penis failed to do it right: they tried to unroll the "Johnnie" from the inside out. (Great, yet another unsavory slang usage of my first name.) The most important way to improve condoms' effectiveness is to teach people how to use them properly; especially how to avoid spills and tears. With proper and consistent use, condoms' failure rate drops to 2 percent or less of women getting pregnant during their first year of safe sex.

Contraceptive misuse and unintended pregnancies are more frequent in the United States than in other developed nations in part because talk of sex is still taboo in most schools even as it saturates pop culture. Only 10 percent of US students receive comprehensive sex education; one out of four US school districts has an abstinence-only curriculum. In 1997, the US Congress set aside \$250 million for local governments to teach that abstinence is the only effective method of birth control and that sex outside of marriage "is likely to have harmful psychological and physical effects."

Abstinence is the most effective form of contraception

and prevention of sexually transmitted diseases. But try telling that to people having sex 100 million times a day.

The condom is the only sustainable wonder designed to be thrown away after one use. Unlike most disposable goods, condoms have to be thrown away, for obvious sanitary reasons. Fortunately, because almost all condoms are made from natural latex (rubber), their ecological impact is much lower than if they were made from synthetic rubber. For example, it takes at least three tons of petroleum to make a ton of synthetic rubber. Synthetic rubber also lacks natural latex's great strength and elasticity, essential qualities for condoms. (And airplane tires, for that matter. All the world's commercial airplanes, and even the space shuttle, roll on tires made of processed tree sap.)

While rubber tapping in the Amazon is environmentally benign, monoculture rubber plantations in Southeast Asia have replaced large areas of tropical forest. And to become a condom, raw latex has to be heated, cured with sulfur (vulcanized), and mixed with other additives before a mandrel (a penis-shaped glass tube) can be dipped into it (twice) to form a condom. Still, whatever impact rubber production has in the world, condoms are responsible for exceedingly little of it. The natural rubber in one car tire is enough to make 1,100 condoms.

Condom packaging does leave much to be desired. A highly (ahem) scientific survey conducted in Aisle 8B of the Bartell Drugs downstairs from Northwest Environment Watch's Seattle office revealed that just 1 of 27 types of condoms for sale came in recycled packaging; the rest came in heavily bleached boxes of virgin cardboard. The boxes and the wrappers inside undoubtedly caused more environmental damage than the product they contained. But in the end, condoms' packaging problems are small compared with the good they do by preventing unwanted births and the spread of disease. If all the world's couples used condoms every time they had sex, they'd end up using 100 million condoms a day and 200 tons of rubber, 70 tons of lubricant, and 1,400 tons of packaging. But that would still pale in comparison with the 5,500 tons of synthetic and natural rubber consumed in one day's worth of tire manufacturing in the United States alone.

Tackling the big-ticket ecological threats to humanity's future—like the climate-altering pollution that rises from all our four-tired vehicles—means stabilizing human numbers at a level the Earth can support. Halting population growth will require, among other things, reducing the poverty and sexual abuse that induce women-in North America and

around the world-to bear children. It also requires making condoms and other family planning and reproductive health services more widely available.

Better funding for government programs that get condoms and other contraceptives into people's hands and educate them on proper use will go a long way toward halting the spread of sexually transmitted diseases and the growth in human numbers. But in the end, the burden falls on individuals and couples to enjoy their sexuality-and plan their families-responsibly. So, to wrap up, use a condom!

No Wonder? Nonoxynol-9

Condoms that include spermicide usually contain nonoxynol-9, a chemical that kills off not only sperm and disease-causing bacteria but the “good” bacteria that keep other bacterial populations in check. As a result, regular use of nonoxynol-9-coated condoms can triple a woman’s odds of getting urinary tract infections. Half of all women will have at least one urinary tract infection by the time they turn 30. Each year, there are 7 million cases of urinary tract infection in the United States, with annual health care costs of at least \$1 billion.

An unintended pregnancy or a case of gonorrhea has much more serious repercussions than a urinary tract infection, so condom users need to weigh various factors when deciding whether to use spermicide. Those factors include nonoxynol-9’s most recently discovered side effects: it can mimic the hormone estrogen in the human body. Research has only begun on hormone-mimicking substances (“endocrine disrupters”), but it is already clear that, even at exceedingly low concentrations, they can cause birth defects, reduced fertility, and other serious disorders.

While researchers learn more about the endocrine-disrupting effects of chemicals like nonoxynol-9, condom users wanting to avoid the health risks associated with spermicide can look for plain lubricated condoms. (Irritation caused by unlubricated condoms can also lead to urinary tract infections.) And to minimize the risk of pregnancy, it is important to follow the instructions on the condom package to prevent spills or tears. The super cautious can also use condoms in combination with another contraceptive for double safety.