

**C.**

7<sup>th</sup> grade 3.06 Define abstinence as voluntarily refraining from intimate sexual contact that could result in unintended pregnancy or disease and analyze the benefits of abstinence from sexual until marriage.

7<sup>th</sup> grade 3.08 Analyze the effectiveness and failure rates of condoms as a means of preventing sexually transmitted diseases, including HIV/AIDS.

8<sup>th</sup> grade 3.08 Compare and contrast methods of contraception, their effectiveness and failure rates, and the risks associated with different methods of contraception, as a means of preventing sexually transmitted diseases, including HIV/AIDS.

**Materials Needed:**

Appendix 1 - Conception Quiz/STD Quiz - Teacher's Key  
desk bells

Appendix 2 - transparency of quotes about risk taking

Appendix 3 - transparency of Effectiveness Rates for Contraceptive Methods

Appendix 4 - background information on condom efficacy

Appendix 5 - signs and cards for Contraceptive Effectiveness (cut apart)

Appendix 6 - copies of What Would You Say?

**Review:**

Ask eight students to come to the front of the room and form two teams of four. They are to line up so they can ring in to answer questions using the Conception Quiz - Teacher's Key for Appendix 1. Assign another student to determine who rings in first and explain they cannot ring in until they have heard the entire question. Each student will answer a question, go to the end of the line, and then have a second turn answering a question. If the question can be answered "yes" or "no," they are to explain "why" or "why not."

Ask another eight students to come to the front and repeat the activity using the STD Quiz - Teacher's Key.

**Statement of Objectives:**

*We just completed an activity to see what we know about the risks of unintended pregnancy and becoming infected with an STD. Today we are going to talk about how to reduce those risks. By the end of the lesson, you will be able to tell the difference between risk reduction and risk elimination.*

**Focus:**

Show the transparency of Appendix 2 and uncover the expression, "It's a sure thing." Ask what is meant by the expression. Suggest that there are many aspects of life which are certain and many that are uncertain and we need to be able to differentiate between those which are completely certain (100%) and

those that are less than certain. Uncover the lower half of the transparency with the expression, “Yes, risk-taking is inherently failure-prone. Otherwise, it would be called **sure-thing-taking**.” Ask what this quotation means.

**Teacher Input:**

*One of the concepts we learn in health class is that of risk taking. We know there are positive and negative health risks. What is a risk which could result in harm? (not wearing a helmet when riding a bike, using any tobacco product) What is a risk which would have a positive benefit? (trying out for an athletic team, introducing yourself to someone new)*

*We also know there are risks which (depending on other factors) may cause harm immediately (drinking and driving) or may be unlikely to happen (being struck by lightning). There are some risks which are more likely to “catch up with us.” For example, not wearing a seat belt may not hurt us today (although it could), but the likelihood that not wearing a seat belt will someday hurt us is very real.*

*Sexual risk taking can result in unintended consequences including a pregnancy which was not planned or the transmission of a disease. Those diseases include several diseases which cannot be cured. We think of those diseases and an unintended pregnancy as life-altering, if not life-shattering, events.*

*For a variety of reasons, many young people are electing to remain sexually abstinent until marriage. High on the list of reasons is that abstinence is the best and most certain means of preventing unintended pregnancy or disease.*

Pose the question: *What are additional reasons for choosing abstinence?*

*We have learned from scientists and physicians that many methods of contraception and disease prevention (if used correctly and consistently) are highly effective in preventing disease and pregnancy. We also know some people rely on methods which are not effective. For example, some couples may believe withdrawal is a way to prevent pregnancy. This is not an effective method of birth control because there is fluid released before a male ejaculates. It is also difficult for the male to know when he will ejaculate or be able to stop in time. There are other methods which are unreliable such as trying to guess when the female is ovulating and avoiding those days in her cycle.*

*When scientists determine the effectiveness of products in preventing pregnancy, they look at data for couples who use only one method and determine how many couples experienced a pregnancy within a year. If 100 couples use a single method of contraception for one year and two couples experience a pregnancy, that method is considered 98% effective.*

Ask students to brainstorm methods of contraception which they have heard about or seen advertised. [They should try to use correct terminology rather than slang.] They may mention the patch, the pill, or condoms. Explain there are many methods available and display the transparency (Appendix 3) which shows the effectiveness and failure rates of these methods. [Source: ***Contraceptive Technology***] Share with students these products rarely fail if used correctly and it is most likely human (or user) error if the product does not work.

*For sexually active people, a reliable method is always better than no method. The reality is there is **some** error with birth control. That is why we refer to abstinence as the best and most certain means of birth control. The possibility of an unintended pregnancy is one of the reasons many adults, and especially parents, hope their children will practice sexual abstinence.*

*Another reason is the problem of sexually transmitted diseases. Each year, one in four teens contracts an STD, according to the American Social Health Association. There are fewer choices of products for preventing diseases than for preventing pregnancy. Correct and consistent use of condoms can be very effective in the prevention of HIV and gonorrhea and can reduce the risks of other STDs. None of the hormonal methods of birth control prevent diseases. [Read background content for teachers in Appendix 4.]*

Ask students these processing questions:

- *What is meant by risk elimination?*
- *What is meant by risk reduction?*
- *Which is achievable through abstinence?*
- *Which is achievable through condoms and contraception?*

### **Guided Practice:**

[Create before class the materials in Appendix 5, cutting apart the signs and cards and placing them in envelopes.] Provide each pair of students with an envelope. Each envelope will contain three titles, Most Effective, Least Effective, and No Effectiveness, and slips of paper with methods of contraception. They are to work together to create a continuum of effectiveness. Ask them to place two of the titles on their desks so that Most Effective is to the left and Least Effective is to the right. Ask them to place the methods in order from Most Effective (on the left) to Least Effective (on the right). When they have completed this, check to see if they have the methods in the correct sequence. Have them notice that abstinence is most effective in preventing unintended pregnancy.

Have them place the titles Most Effective and No Effectiveness on their desks with Most Effective on the left side. Have them place the methods of birth control which also protect against the transmission of diseases under the title Most Effective. Have them place methods which offer no disease protection

under the other title. Ask them which method did not change positions and have them conclude abstinence is the most certain means of preventing pregnancy and disease.

Answers for effectiveness against pregnancy (most to least):

- abstinence (100% if practiced all the time)
- hormonal methods (99+%)
- IUD (99+%)
- condom (98%)
- diaphragm (94%)
- vaginal sponge or cervical cap (91%)
- spermicide (82%)
- no method (15%)

Answers for prevention of diseases are:

- Most Effective – abstinence, condoms
- No Effectiveness – hormonal methods, IUD, spermicide

[Because they cover the cervix, there is some protection with the diaphragm and cervical cap, but they do not protect the interior walls of the vagina nor the penis from exposure to body fluids.]

### **Independent Practice:**

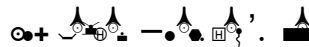
Provide each student with the illustration of two students who are shown having a conversation about taking responsibility for preventing pregnancy or disease and the concept of risk reduction versus risk elimination, What Would You Say? (Appendix 6). As they complete the written dialogue, move around the room to select several responses to read to the class. Those selected should be supporting messages that young people need to be responsible in preventing the unintended consequences of engaging in sexual intercourse.

### **Closure:**

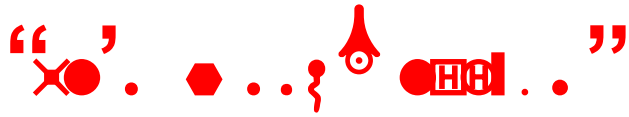
*Today we discussed the difference between risk elimination and risk reduction. There are methods of disease prevention and birth control which are highly effective if used correctly and every time couples engage in sexual intercourse. No method is as effective as avoiding the risk entirely by practicing abstinence. Of course, abstinence must also be practiced consistently and correctly to eliminate any possibility of pregnancy and disease.*



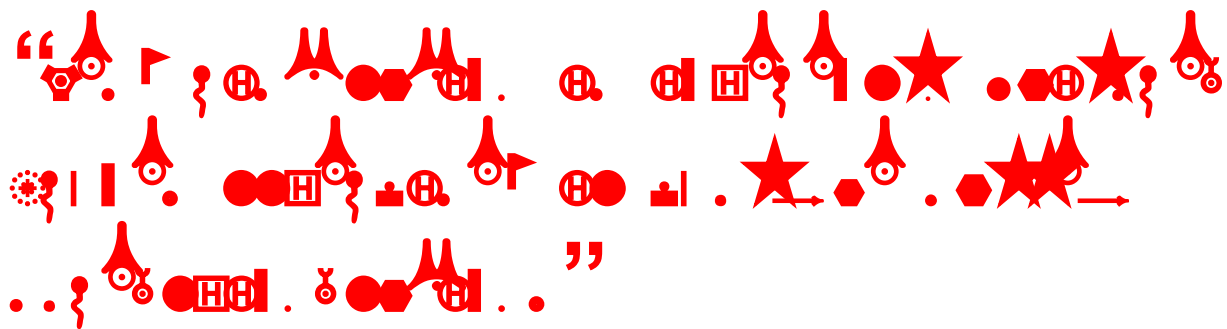
1. What is the name of the female egg cell?	Ovum (singular), ova (plural)
2. What is the name of the male cell which combines with the ovum?	Sperm
3. What is the male organ used for urination and sexual intercourse?	Penis
4. What is the female organ in which a baby develops during pregnancy?	Uterus or womb
5. What is the physical act which could result in pregnancy?	Sexual intercourse
6. Is it possible to predict when ovulation takes place in the female? [Why or why not?]	No. Many females do not have a regular cycle of ovulation and menstruation.
7. Is it possible for a female to become pregnant without penetration? [Why or why not?]	Yes. If sperm are released near the opening of the vagina, they can travel into the reproductive tract and result in conception.
8. Is it possible for a female to become pregnant before her first menstruation?	Yes, if she engages in sexual intercourse; ovulation usually occurs before the first menstruation.



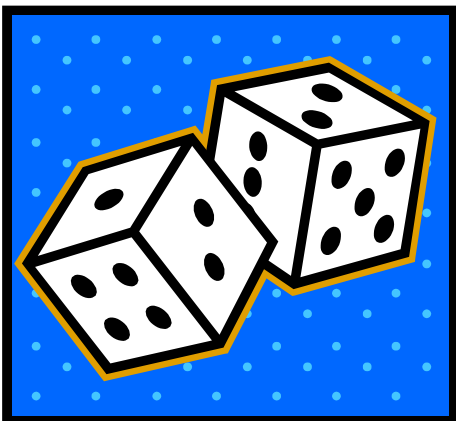
1. What does STD and STI stand for?	Sexually transmitted diseases, sexually transmitted infections
2. How many different STDs are there?	Scientists estimate there are between 25 and 35 STDs.
3. What causes STDs/STIs?	Viruses, bacteria, fungi, parasites
4. Are all STDs treatable and curable?	Those caused by bacteria are treatable and curable. Those caused by viruses are treatable but not curable.
5. What are the two most common STDs?	Human papilloma virus (most common) and chlamydia (most common in teens)
6. What is the rate of infection among sexually active teens?	One in 4 teens contracts an STD each year.
7. Why are teens at greater risk for STDs?	Teens are more likely to have multiple sexual partners and less likely to use protection.
8. Are there vaccines which can prevent STDs?	There is a new vaccine which can prevent some strains of human papilloma virus (developed to help prevent cervical cancer). For most STDs, there is no vaccine available.



Slogan commonly used to market products



Jim McMahon



## Effectiveness Rates for Contraceptive Methods

Method	Effectiveness Used perfectly	Failure Rate
Abstinence	100%	100% if practiced consistently
Injectables-Lunelle (once a month shot)	99.95%	.05%
Norplant I and 2	99.95%	.05%
Sterilization Male	99.9%	.1%
IUD (Mirena) intrauterine device	99.9%	.1%
Injectables-Depo- Provera	99.7%	.3%
Ortho Evra patch	99.7%	.3%
Oral contraceptives (estrogen & progesterone)	99.7%	.3%
Vaginal Ring or Nuva Ring	99.7%	.3%
Sterilization Female	99.5%	.5%
IUD- Copper T	99.4%	.6%
Progesterone Only Pills	99.3%	.7%

Male Condom w/o spermicide	98%	2%
Reality female condom w/o spermicide	95%	5%
Diaphragm	94%	6%
Vaginal Sponge Nulliparous	91%	9%
Cervical Cap Nulliparous	91%	9%
Spermicide (foams, gels, creams, suppositories, film used alone)	82%	18%
Sponge Parous	80%	20%
Cervical Cap Parous	74%	20%
No method	15%	85%

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## **Condoms Proven to Protect Against Virus**

By LINDA A. JOHNSON

For the first time, scientists have proof that condoms offer women impressive protection against the virus that causes cervical cancer.

A three-year study of female college students - all virgins at the start - found that women whose partners always wore a condom during sex were 70 percent less likely to become infected with the human papilloma virus, or HPV, than those whose partners used protection less than 5 percent of the time.

"That's pretty awesome. There aren't too many times when you can have an intervention that would offer so much protection," said Dr. Patricia Kloser, an infectious-disease specialist at University of Medicine and Dentistry of New Jersey who was not part of the study.

Condoms have been shown convincingly to prevent pregnancy and AIDS. But [some have been suspicious] that condoms do not protect well against diseases such as HPV, because men can spread the virus to women from sores on their genitals outside the area covered by a condom.

However, the researchers at the University of Washington found that the chances of HPV being spread that way appear to be small.

Human papilloma virus - which can cause cervical cancer, genital warts and vaginal, vulvar, anal and penile cancers - is the most common sexually transmitted disease, infecting about 80 percent of young women within five years of becoming sexually active. An estimated 630 million people worldwide are infected.

The virus is spread during sex from contact with the sores, or lesions, that develop around infected cells. Often, the virus is killed by the immune system, but in some people HPV can take hold and cause lesions that can turn cancerous years later. Cervical cancer strikes about 10,520 American women and kills about 3,500 each year. Worldwide, about 500,000 women develop cervical cancer and nearly 300,000 die from it every year.

In the HPV study, published in Thursday's New England Journal of Medicine, none of the women who reported that their partners always used condoms developed lesions during the three-year period. Fourteen women whose partners used condoms less regularly got lesions.

Twelve of the 42 women who said their partners always used condoms became infected. Rachel Winer, a researcher in the university's epidemiology department, said it could be that the couples did not use the condoms correctly or had some sexual contact before putting on a condom.

Recent medical advances might someday render the condom debate moot: Earlier this month, the government approved the first vaccine against HPV, and public health officials are urging that girls be routinely vaccinated before they become sexually active.

The study comes as the Food and Drug Administration is revising rules for the claims that manufacturers can make on how well condoms prevent sexually transmitted diseases.

Packages now must state: "If used properly, latex condoms will help to reduce the risk of

transmission of HIV infection (AIDS) and many other sexually transmitted diseases." But revisions were ordered by Congress in 2000 amid pressure from conservative groups demanding "medically accurate" claims as to condoms' effectiveness.

Safer-sex advocates warn that changing the wording would undermine public confidence in, and use of, condoms. At the time, there was solid evidence only on how well condoms prevent pregnancy, HIV and, in men, gonorrhea. Recent research has produced strong evidence condoms protect well against gonorrhea, chlamydia and herpes in both men and women, said Dr. Ward Cates Jr., president of the Institute for Family Health at Family Health International. This study adds HPV to that list, he said.

"This will help clinicians to counsel their patients about the effectiveness of condoms to reduce another of the sexually transmitted infections - if condoms are used consistently and correctly," Cates said.

The researchers invited 24,000 female students ages 18 to 22 at the Seattle university to be in the study. Starting in 2001, they followed 82 from before their first vaginal intercourse, testing the women for HPV with swabs of the cervix and other genital areas every four months. The women kept online diaries detailing each act of intercourse, including condom use and whether there was any genital contact without a condom.

Winer said previous HPV studies either showed no protection from condoms or were inconclusive. This one included only virgins and collected more details, and the computer diaries helped women be more honest about condom use than those in studies where people are interviewed about their sexual behavior, she said.

"This is about as ideal a study as you can get," said Dr. Tom Fitch, a San Antonio pediatrician and board chairman at the Medical Institute for Sexual Health which stresses abstinence and monogamy as the only sure ways to prevent sexually transmitted infections.

Nevertheless, Fitch noted that some consistent condom users still were infected with HPV. Fitch and Kloser also suggested that the results in the real world - say, among poor, inner-city women - might be different from those with college women.

Fitch said several studies have shown that at most, 50 percent of people reported using a condom every time they had sex.

**Most  
Effective**

**Least Effective**

**No Effectiveness**

<b>Abstinence</b>	<b>Hormonal Methods (the pill, the patch, injections, vaginal ring)</b>
<b>Intrauterine Device (IUD)</b>	<b>Condom</b>
<b>Diaphragm</b>	<b>Barrier Methods such as the Vaginal Sponge, Cervical Cap</b>
<b>Spermicides</b>	<b>No Method</b>

## What Would You Say?

The student on the left has a class in Healthful Living Education which covered abstinence and methods of prevention. How might she answer her friend's question?

