

Critical Review

Family Life and Sexual Health
(FLASH)

High School (9-12)

Lesson 12 – Condoms to
prevent pregnancy, HIV and
other STDs

Examining this lesson to see if it meets WA
state and Federal standards for health
education

Critical Review of FLASH Lesson 12 - Condoms

FLASH is a widely used comprehensive sexuality education curriculum developed by Public Health Seattle–King County and designed to prevent teen pregnancy, STDs and sexual violence.

Summary:

FLASH Lesson 12 fails to meet NHES standards 3 & 7 and fails to meet WA State Health Education standards. The lesson fails to provide adequate medical information on condom use. Teenagers are not informed of the true risks of condom use. According to one estimate^[1], only 20% of people using condoms use them correctly, the other 80% are at risk of contacting STDs. FLASH Lesson 12 is simply deficient in supplying adequate medical information to teenagers to make a healthy wise choice before engaging in sexual activities (condom use or otherwise).

Introduction to FLASH Lesson 12

High School FLASH Curricula Lesson 12: Condoms to Prevent Pregnancy, HIV and Other STDs^[2] states that “This lesson begins with a brief overview of HIV and other STDs, focusing on prevention, transmission, symptoms and consequences.” The lesson claims to meet several National Health Education Standards including:

- Standard 3: Students will demonstrate the ability to access valid information and products and services to enhance health.
- Standard 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

Additionally Lesson 12 also claims to meet the Washington State Health Education Standards including:

- Essential Academic Learning Requirement (EALR) 2: The student acquires the knowledge and skills necessary to maintain a healthy life: Recognizes dimensions of health, recognizes stages of growth and development, reduces health risks, and lives safely.

Under the Lesson 12 Activities Subheading, Step 4 describes the facts about condoms:

Quote:

4. Discuss effectiveness of condoms

Show [Visual 1: Condom Facts](#). Read the facts from the visual to the class or have student volunteers read them aloud. ([Show Script >>](#))

Explain that this information comes from the Centers for Disease Control and Prevention (CDC)³ and is based on science.

Read or have student volunteers read the points about the Actual Research Example from the visual aloud. ([Show Script >>](#))

¹ Fitch, J. Thomas, Condom Effectiveness Handout & Bibliography, last rev. July 18, 2018

² [Lesson 12: Condoms to Prevent Pregnancy, HIV and Other STDs](#)

³ <https://www.cdc.gov/condomeffectiveness/latex.html>

Critical Review of FLASH Lesson 12 - Condoms

Explain that this study was published in the New England Journal of Medicine,⁴ one of the most respected medical journals in the world. Stress the importance of correct condom use. ([Show Script >>](#))

End quote.

Medical Claim(s) for Condom Effectiveness

Lesson 12 Activities, Step 4 is a crucial part of the lesson and claims that condoms are effective in preventing STDs. This claim is justified by the Visual 1: Condom Facts

Visual 1

Condom Facts

Facts:

- **Condoms reduce the spread of HIV.**
- **Latex condoms do NOT allow anything to pass through – not air, water, sperm, bacteria or viruses, such as HIV.**

⁴ deVincenzi, I. (1994). A longitudinal study of human immunodeficiency virus transmission by heterosexual partners. *New England Journal of Medicine*, 331, 342-346.

Actual research example:

- **There were 124 couples in a research study.**
- **In each couple, one person had HIV and the other person did not.**
- **The couples used condoms correctly every time they had sex for 2 years.**
- **At the end of the study, none of the people with HIV had passed it to their partners.**

Apparently this visual was composed from the SIECUS Facts Sheets “The Truth about Latex Condoms” as computer word syntax analysis has shown. The fact sheet is no longer available from SIECUS themselves as of July 27, 2018, but is archived on other sites.

There are problems with the visual, found by comparing the data with the actual journal paper. There were actually 304 subjects(196 women, 108 men) not 124. Of the 256 couples using condoms, only 124 used condoms persistently. And the study stresses that nearly half (130 of 304) of the couples stopped having sex at all to protect themselves against HIV infection by the end of the study.

The students are left to themselves to infer two important facts:

1. Condoms protect against other STDs, not just HIV
2. None implies 100% protection against STDs

Why are the students left to infer these facts for themselves, but not told the rest of the story in the study?

The only 2 supporting medical references in Lesson 12 Step 4 condom effectiveness is the CDC URL reference on latex condoms^[2] and the medical citation to the New England Journal of Medicine^[3], alleging complete protection against all STDs.

Is this sufficient? Has the student been supplied adequate information to meet the NHES Standard 3? Does finding a study with 100% success rate mean all studies are 100% successful?

Critical Review of FLASH Lesson 12 - Condoms

Asking some important questions

Some important questions need to be asked:

1. *Is one medical reference enough?*

Supplying just one medical reference to justify the belief in the complete effectiveness of condom use to stop STDs is simply indefensible and irresponsible.

The students deserve to be told the truth about condom facts and given the latest results so that they will have accurate knowledge before deciding to engage in sexual behavior using condoms. They need to know the true risks involved.

2. *Is that one reference typical of the standard population?*

The answer here is NO. The New England Journal study was of only 1 HIV negative partner with 1 heterosexual HIV-positive partner, not the general case. While the visual is careful to point out the type of sample, it does not state the relative percentage of this group sample as compared to the general population sample.

The FLASH visual also neglected to inform the students that of the 304 partners, 130 ended, most often due to the death of the HIV partner, and more importantly, of the 256 couples continuing in the study, only 124 or 48.4% used condoms consistently.

Shouldn't the students be told the facts that 51.6% failed to use condoms consistently? This is more than a ½ failure rate! Why hide this fact from the students?

Conclusions: Students have not been fully informed about the results of the New England Journal of Medicine Study nor is this study typical of the general population. Nor have they been told that only 48.4% partners used condoms consistently and that the study found more than ½ the partners were failing to even use condoms consistently. Furthermore, only supplying 1 case study is negligent at best, in attempting to prove the effectiveness of condoms to block STD infection.

What are the true facts on condoms?

It is time to examine the facts about condom use and effectiveness.

We first quote from a 2000 NIH Condom Report ^[5]

None of the studies considered by the panel evaluated condom slippage and breakage rates in sexually active teenagers less than 18 years of age. Only three published articles report results from recent prospective sizeable trials of latex condoms in the U.S. and provide reliable slippage and breakage rates (44,45,80). Estimates of condom breakage from these studies range from 0.4-2.3%. Slippage rates from these three studies ranged from 0.6% to 1.3%. Slippage rates include both slippage during intercourse and slippage during withdrawal. The combined method failure (slippage plus breakage) is estimated at 1.6% – 3.6%.

⁵ Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease (STD) Prevention June 12-13, 2000 Hyatt Dulles Airport Herndon, Virginia

Critical Review of FLASH Lesson 12 - Condoms

These and other studies show that factors affecting slippage and breakage are related to user familiarity and knowledge, including user experience, selection of condom size (width), and proper use of additional (exogenous) lubricant (2,51,81,123). With increased education and improved experience, one can expect condom slippage and breakage rates to decrease.

One additional drawback of all these studies is reliance on self-reports for tallying the events themselves, i.e., slippage, breakage, and use. More recently, study methodologies have provided for improved logs of coital activity to be used by study participants, as well as careful study monitoring techniques to encourage their consistent use. It is believed that this has added to the reliability of slippage and breakage rates numbers. Still, these studies may inherently be hindered by relying on the self-assessment of study participants. Over the past 2-3 years, researchers have begun to use biological markers and postcoital testing of the vaginal pool as a potentially more objective measure of method failure. The eventual success of these efforts remains to be seen (75, 79, 129).

End quote

Question: Are the students being informed of the 1.6% to 3.6% failure rate according to this study which admits that few studies have been done for sexually active teenagers, studies which rely upon self-reporting? Even the medical researchers admit the problem with self-reporting statistics.

We next consider a paper discussing the results of the 2000 NIH Condom Effectiveness Conference, titled "Condom Effectiveness, Factors That Influence Risk Reduction"^[6], and we just quote one section:

(1) In the absence of compelling evidence of condom effectiveness, young people should be strongly encouraged and counseled to delay the initiation of sexual activity. Studies have shown that delaying the onset of sexual activity markedly decreases the average number of lifetime sexual partners.^{35,41,42} The number of lifetime sexual partners greatly influences the risk of STD acquisition. Delaying sexual initiation is particularly important because of the high incidence and prevalence of STDs in the adolescent population. Though this delay in sexual initiation will benefit both sexes, females are likely to receive the most significant health benefits. Allowing time for the epithelial cells of the female cervix to mature before any potential STD exposure occurs should provide measurable protection.

In light of the lack of compelling evidence of condom effectiveness, are young people being strongly encouraged and counseled to delay initiating sexual activity?

Are young woman being told that delaying having sex allows crucial time for their cervix to mature providing some degree of protection? *Are the adolescent females even being told this fact in their sexual health education material at all?* Women need to be told this important medical fact, before engaging in sexual activities.

More compelling evidence of incomplete protection offered by condoms

⁶ Condom Effectiveness, Factors That Influence Risk Reduction, J. Thomas Fitch, Md,* Curtis Stine, Md,† W. David Hager, Md,‡ Joshua Mann, Md, Mph,† Mary B. Adam, Md,§ And Joe Mcilhaney, Md†, American Sexually Transmitted Diseases Organization, Vol 29, No 12, pp 811-817

Critical Review of FLASH Lesson 12 - Condoms

We next turn to a monograph^[7] provided by the Medical Institute of Sexual Health analyzing the results of the 2000 NIH condom effectiveness conference.

We quote:

How well do condoms “protect” against STDs?

Still, advocates of safer-sex might look at the available data and suggest condoms provide a measure of “protection” against STDs. While research indicates that condom use may result in a decreased risk of acquiring a number of STDs, condoms *do not* offer complete protection, only risk reduction. Even with the use of condoms during 100% of occurrences of sexual intercourse:

- There is still about a 15% relative risk of acquiring HIV from an infected partner.
- There is still between 50% and 71% relative risk of acquiring syphilis from an infected partner.
- There is still about a 50% relative risk of acquiring gonorrhea from an infected partner.
- There is still about a 50% relative risk of acquiring chlamydia from an infected partner.

Given the serious (and in the case of HIV, life threatening) consequences of these diseases, promoting condoms as “protection” is not only foolish but irresponsible. Furthermore, there is insufficient evidence to determine whether condoms offer any reduction of risk whatsoever for transmission of about 20 STDs.

Questions: Have the students been provided these facts? There is a significant risk in contracting an STD from an (unknown) infected partner! Is it responsible to let the student infer for themselves that condoms are 100% effective (none = 0%) when the true facts show that significant risk exists??

Conclusion: It is very irresponsible to let students infer in their own mind that condoms provide 100% protection, and withhold medical evidence showing the true risks!

Next we quote almost in entirety from a Facts sheet^[8] published by the Medical Institute Organization.

The Condom. For Years you’ve heard people say, “Use a condom every time you have sex.” You may think that condoms make sex safe, but research shows that’s not the case. Condoms used to prevent pregnancy fail in about 15% of couples during the first year of use.¹ And even if used every time you have sex, condoms just reduce your risk of getting a sexually transmitted infection (STI); they don’t eliminate it. THE TRUTH IS, even if you use a condom every time you have sex, you’re still at risk for both pregnancy and STIs. How serious is your risk?

Keep reading...

Each Year, THERE ARE ABOUT 20 MILLION NEW INFECTIONS; HALF OF THESE ARE IN PEOPLE UNDER 25.² SOME OF THESE STIS ARE TREATABLE BUT MANY HAVE NO CURE. UNTREATED STIS CAN CAUSE INFERTILITY, CANCER AND EVEN DEATH.

⁷ Summary of Sex, Condoms and STDs: What We Now Know, a monograph by the Medical Institute for Sexual Health

⁸ The Condom. Do condoms make sex safe? Medical Institute, ISBN 1-933902-42-6

Critical Review of FLASH Lesson 12 - Condoms

- ORAL SEX & CONDOMS

STIs, including HIV, herpes, syphilis, gonorrhea, HPV, hepatitis A or B and parasites can be transmitted by oral sex.²⁰ There are very few studies regarding risk reduction by consistent use of condoms during oral sex. The leading cause of cancer in the oropharynx (middle part of the throat, base of the tongue and tonsils) is caused from a virus (HPV) that can be spread by oral sex.³

- ANAL SEX & CONDOMS

Most research regarding condoms and anal sex has been done exclusively with men who have sex with men (MSM). One study shows that the risk of acquiring rectal chlamydia is decreased by consistent condom use.⁴ Recent studies show consistent condom use may reduce the risk of HIV transmission by up to 70%.⁵

- HPV (HUMAN PAPILLOMAVIRUS)

If you use condoms correctly every time you have vaginal sex, you can cut your chance of getting HPV by up to 70%.⁶ HPV is the most common STI in the US. Almost half of all sexually active 15- to 24-year-old women are infected with it.⁷ There are many types of HPV and most people with HPV have no symptoms. One common type of HPV causes genital warts. Other types of HPV can cause cervical, penile, oral and anal cancers. Over 4,000 women are expected to die this year due to cervical cancer caused by HPV.⁸

- GENITAL HERPES

If you use condoms correctly every time you have vaginal sex, you can cut your chance of getting genital herpes by about 30%.⁹ Genital herpes infects 1 out of 6 teens and adults.⁷

Once you're infected, you have it for life. Sores can keep coming back for many years, especially if you don't stay on medication. Even if you have no symptoms, you can still spread the infection to others. People with herpes are also at greater risk for becoming infected with HIV.^{10&11}

- CHLAMYDIA AND GONORRHEA

If you use condoms correctly every time you have vaginal sex, you can cut your chance of getting chlamydia or gonorrhea by almost 60%.¹² Chlamydia is the most commonly reported STI. Most people with chlamydia or gonorrhea have no symptoms. Even without symptoms you can pass on these infections. If left untreated, both chlamydia and gonorrhea can cause pelvic inflammatory disease (PID). PID can cause long term pelvic pain and may interfere with your ability to get pregnant.¹³

- HIV/AIDS

If you use condoms correctly every time you have vaginal sex, you can cut your chance of getting HIV by about 80%.¹⁴ Men having anal sex with men who use condoms correctly every time can cut their chance of getting HIV by about 70%.⁵ That might sound pretty good, but that still leaves you at risk for infection. Almost 1 in 7 HIV infected people are unaware that they are HIV positive. Every year about 50,000 Americans get an HIV infection. HIV/AIDS has killed over half a million Americans—and the number is growing.¹⁵

Critical Review of FLASH Lesson 12 - Condoms

- DO PEOPLE USE CONDOMS ALL THE TIME?

Less than two-thirds of sexually active 15- to 19-year-old males report having used condoms at their last sexual intercourse.¹⁶ And, as males get older, fewer use condoms every time they have sex.¹⁷ Even among couples where one partner has HIV, less than half use condoms every time they have sex.¹⁸ Not everyone who uses condoms uses them correctly. Sometimes, even when they are used correctly, condoms break or slip off.¹⁹

- **The Bottom Line**

Condoms don't make sex safe. Although condoms can reduce your risk for some STIs, they don't eliminate it. You can still get an STI or get pregnant.

To completely reduce your risk for STIs, you should avoid sexual activity (including oral, vaginal or anal sex) until you are faithful to one uninfected partner. If you've already had sex, see a doctor about getting checked for STIs.

Waiting to have sex until you are in a faithful, lifelong relationship (such as marriage) with an uninfected partner is the only certain way to avoid being infected sexually.

References:

1. Warner L, Steiner MJ, "Male Condoms." In: Hatcher RA, Trussell J, Nelson AL, et al, eds. *Contraceptive Technology*, 19th rev. ed. New York, NY: Ardent Media; 2007: 297-316
2. Center for Disease Control and Prevention, "Sexually Transmitted Disease Surveillance 2013," Atlanta: US Department of Health and Human Services; 2014
3. National Cancer Institute, "HPV and Cancer", retrieved March 2015 from: www.cancer.gov/cancertopics/causes-prevention/risk/infectious-agents/hpvfact-sheet
4. Hocking J, Fairly CK. "Associations between condom use and rectal or urethral chlamydia infection in men," *Sexually Transmitted Disease* 2006;33 (4); 256-8
5. Smith D et al. "Condom Efficacy by Consistency of Use among MSM," US. 20th Conference on Retroviruses and Opportunistic Infections, Atlanta, abstract 32, 2013
6. Winer RL, Hughes JP, Qinghua F, et al, "Condom Use and the Risk of Genital Human Papillomavirus Infection in Young Women," *The New England Journal of Medicine*, June 22, 2006, Vol. 354 No 25 2645-2654.
7. Satterwhite, Lindsey, Torrone, et al, "Sexually Transmitted Infections Among US Women and Men: Prevalence and Incidence Estimates, 2008", *Sexually Transmitted Diseases* March 2013, Volume 40, Issue 3, p. 187-193.
8. American Cancer Society, "Cancer Facts and Figures 2015" Retrieved March 2015 <http://www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2015/index/>
9. Martin, ET, Krantz E, Gottlieb SL, et al. "A Pooled Analysis of the Effect of Condoms in Preventing HSV-2 Acquisition. *Arch Intern Med* 2009; 169:1233-1240
10. Bradley H., et al, "Seroprevalence of Herpes Simplex Virus Types 1 and 2 – United States, 1999-2010," *The Journal of Infectious Diseases*, 2013, <http://jid.oxfordjournals.org/content/209/3/325.full.pdf> Retrieved Jan 2015.
11. Wald A, Link K, "Risk of Human immunodeficiency virus infection in Herpes simplex virus type 2 – seropositive persons: A Meta-analysis," *Journal of Infectious Diseases* 2001; 185(1):45-52
12. Crosby RA, Charnigo RA, Weathers C, et al, "Condom Effectiveness Against Non-viral Sexually Transmitted Infections", *Sexually Transmitted Infections* 2012;88(7):484-489
13. Paavonen J, Westrom L, Eschenbach D, "Pelvic Inflammatory Disease" In: Holmes KK, Sparling PF, Stamm WE, et al, eds. *Sexually Transmitted Diseases*, 4th ed. New York: McGraw-Hill Medical; 2008:1017-1050
14. Weller SC, Davis-Beaty K, "Condom Effectiveness in Reducing Heterosexual HIV transmission (Review)" *The Cochrane Library* 2007, Issue 4. Retrieved March 2015 from <http://www.thecochranelibrary.com>
15. Center for Disease Control and Prevention, "HIV in the United States: At a Glance" retrieved March 2015 from: <http://www.cdc.gov/hiv/statistics/basics/ata glance.html>

Critical Review of FLASH Lesson 12 - Condoms

16. Kann L, Kinchen S., Shanklin SL, et al, "Youth Risk behavior Surveillance-United States, 2013", *Morbidity and Mortality Weekly Report*, Surveillance Summaries/vol. 63/No.4
17. Reece M, Herbenick D, Schick V, et al, "Condom Use Rates in a National Probability Sample of Males and Females Ages 14 to 94 in the United States," *Journal of Sexual Medicine*, 2010 Oct,7 Suppl 5: 266-76
18. De Vincenzi I, European Study Group on Heterosexual Transmission of HIV, "A Longitudinal Study of Human Immunodeficiency Virus Transmission by Heterosexual Partners," *New England Journal of Medicine* 1994; 331:34346: August 11, 1994
19. Warner L, Newman D, Kamb, ML, et al, "Problems with Condom Use among Patients Attending Sexually Transmitted Disease Clinics: Prevalence, Predictors, and Relation to Incident Gonorrhea and Chlamydia," *American Journal of Epidemiology* 2008, Vol. 167, No.3: 341-349
20. Center for Disease Control and Prevention, "Oral Sex and HIV Risk", retrieved March 2015 from: <http://www.cdc.gov/hiv/risk/behavior/oralsex.htm>

End of the entirety quote from the Medical Institute facts sheet on condoms.

Conclusion: Significant life-changing information has NOT been supplied to the student of the High School FLASH lesson 12 – Condoms to Prevent Pregnancy, HIV and Other STDs. The student needs to be properly informed of the risks regarding condom use!

Two IMPORTANT facts about Condom Use

There are 2 facts about condom use that are not common knowledge or apparently are being ignored, or neglected.

- **FACT #1 - The FDA has never certified condoms for anal sex**

Originally the FDA said their website ^[9]

Are condoms strong enough for anal intercourse?

The Surgeon General (C. Everett Koop, Surgeon General 1982-1989) has said, "Condoms provide some protection, but anal intercourse is simply too dangerous to practice"

Condoms may be more likely to break during anal intercourse than during other types of sex because of the greater amount of friction and other stresses involved.

Even if the condom doesn't break, anal intercourse is very risky because it can cause tissue in the rectum to tear and bleed. These tears allow disease germs to pass more easily from one partner to the other.

The FDA, however, apparently changed the above warning on April 15, 2014, to state only the following:

Are condoms strong enough for anal intercourse?

9

<http://www.fda.gov/ForConsumers/byAudience/ForPatientAdvocates/HIVandAIDSactivities/ucm126372.htm>

Critical Review of FLASH Lesson 12 - Condoms

Condoms may be more likely to break during anal intercourse than during other types of sex because of the greater amount of friction and other stresses involved.

Hawaii State Representative Bob McDermott caught this apparently politically correct word change on the FDA website^[10].

Why was there a removal of the Chief Surgeon's statement that "anal intercourse is simply too dangerous to practice"? Was the FDA embarrassed to admit this fact? What about the all important medical fact that tissue tears allow STDs and disease germs to infect the partner more easily?

- **FACT #2 – Less than ½ of people using condoms, use them properly**

A bibliography^[11] on condom effectiveness states:

- a) Perhaps we need to distinguish the value of condoms for reducing the acquisition of STI infection at the individual level versus the population level. For the approximately 20% of the population who seem to be able to use a condom consistently and correctly there is potential risk reduction from acquiring an STI. For the 80% of the population who do not use a condom both consistently and correctly there appears to be minimal or no risk reduction.

More careful medical study is needed to pin down this rate. 20% is an astonishing low figure! The 80% need to realize that there is very little improvement in their chances of not contracting an STD.

Revisiting the CDC data

Coming back to the CDC on condom effectiveness:

"Consistent and correct use of the male latex condom reduces the risk of sexually transmitted disease (STD) and human immunodeficiency virus (HIV) transmission. **However, condom use cannot provide absolute protection against any STD.** The most reliable ways to avoid transmission of STDs are to abstain from sexual activity, or to be in a long-term mutually monogamous relationship with an uninfected partner. However, many infected persons may be unaware of their infection because STDs often are asymptomatic and unrecognized."^[12]

Again, the CDC says "condom use cannot provide absolute protection".

So even the CDC admits that condoms cannot provide absolute protection against ANY STD!

¹⁰ <http://www.hawaiireporter.com/food-and-drug-administration-alters-condom-warning-on-its-website-without-citing-any-reason/>

¹¹ Condom Effectiveness Handout & Bibliography, J. Thomas Fitch, M.D., P.A., rev July 18, 2018

¹² <https://www.cdc.gov/condomeffectiveness/brief.html>

Critical Review of FLASH Lesson 12 - Condoms

Question: So why are the students taking FLASH Lesson 12 allowed to infer that condoms work 100% to protect against STDs? (none = 0%) when clearly the CDC themselves admit that condoms don't provide absolute protection against any STD?

Final Summary

Because of the lack of accurate medical information not being provided to the students and relying upon only one medical study to justify an apparent success rate of 100% STDs protection, which the students are left to infer, we have to conclude that:

- FLASH Lesson 12 on condoms does NOT meet the National Health Education Standard #3 of giving the student "the ability to access valid information" The lesson simply fails to provide this critical information as shown by the medical literature in this review.
- FLASH Lesson 12 does NOT inform the student sufficiently on health-enhancing behaviors to avoid or reduce health risks and thus fails to meet the NHES #7 standard. The risks have been previously highlighted and quantified in this review.
- FLASH Lesson 12 fails to meet the Washington State Health Education standards by not reducing health risks and allowing the student to acquire knowledge and skills necessary to maintain a healthy life. The lesson has provided hardly any real information at all.

FLASH Lesson 12 is simply deficient in supplying adequate information to make a healthy wise choice before engaging in sexual activities.

Shouldn't our youth be given a better chance than this? Why are we failing to supply them with health critical information? Why are we letting them conclude that they are safe when the medical facts declare otherwise?