

The ABC's of Contraception: What Teens Need to Know
An Electronic Resource for Sexual Health Information

Author: Stefanie J. Edington, Pharm.D Candidate 2016

Advisor: Dr. Teresa M. Bailey, Pharm.D, BCPS, BCACP, FCCP

Ferris State University's College of Pharmacy

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LEGAL DISCLAIMER

The information provided in this book is designed to provide helpful information on the subjects discussed. This book is not meant to be used, nor should it be used, to diagnose or treat any medical condition. This book is not intended as a substitute for the medical advice of physicians. This information is not meant to be used for self-diagnosis. The information in this book is meant to supplement, not replace, appropriate and timely medical evaluations and consultations. For diagnosis or treatment of any medical problem, consult your own physician. The authors are not responsible for any specific health or allergy needs that may require medical supervision and are not liable for any damages or negative consequences from any treatment, action, application or preparation, to any person reading or following the information in this book. References are provided for informational purposes only and do not constitute endorsement of any websites or other sources. Readers should be aware that the websites listed in this book may change.

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INTRODUCTION

Project Purpose ¹⁻²

The United States currently has the highest teen pregnancy rate of all industrialized countries, and has been in this position for several years. Teenage sexuality is not a new issue – however, the number of unwanted pregnancies and sexually transmitted infections that occur each year in this population is preventable. In fact, teens in the United States only make up 25% of the sexually active population, but make up nearly 50% of all new sexually transmitted infections each year.

Currently, it is up to individual states on how to best provide sexual education to teens. Surprisingly, only 22 states, and Washington D.C., have laws requiring sexual education occur at school. And, 35 states have a law stating that parents can pull their children out of school sexual education if they wish. If teens do not learn about sex at school, where else do they learn? Parents, friends, family, religious groups, the internet? This project aims to provide a medically-accurate electronic resource to help answer some of the questions teens may ask about sex, sexual health, puberty, and staying safe.

Terminology ³⁻⁶

Throughout this project, I have made a distinct effort to use the terms “female” and “male”, instead of “woman” and “man”. The reason for this distinction comes from the definitions of these words.

Female: Of or denoting the sex that can bear offspring or produce eggs, distinguished biologically by the production of gametes (ova) that can be fertilized by male gametes

Woman: The female human being, as distinguished from a girl or a man

Male: Of or denoting the sex that produces small, typically motile gametes, especially spermatozoa, with which a female may be fertilized or inseminated to produce offspring

Man: The male human being, as distinguished from a boy or woman

The decision on whether or not contraception is necessary in a sexual relationship depends on the biological gender(s) of the person(s) involved, and whether or not those sex organs are functional. The terms “female” and “male” are used throughout this book because the idea of contraception depends specifically on the biology of the people involved. These terms are purely scientific; they have no connection whatsoever to the outward gender expressed through clothing, mannerisms, or personal identity. The terms “female/women” and “man/men” do not have specific definitions as they relate to biology.

Excluding any extensive medical procedures or interventions, pregnancy can only occur between a male and female with functioning sex organs. For individuals in monogamous homosexual relationships, contraception is not necessary. For bisexual and trans-gender individuals (individuals who were physically born as one gender, but function in society as another), the necessity of contraception depends on the gender(s) of the people involved in the relationship(s), and the functionality of their respective sex organ(s). Talking to a healthcare provider can help you determine if contraceptives are something you and your partner(s) need. There are still many topics throughout this book that still apply to people of all genders and sexualities. Chapters on sexually-transmitted diseases and prevention, benefits of prescription hormonal contraceptives, vaccinations, rape prevention and reporting, tampon use, premenstrual disorders, urinary and yeast infections, sexual health exams and cancer screening, are just a few examples.

Resources

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CHAPTER 1: A IS FOR ABORTION

What is Abortion? ¹⁻³

Abortion is the choice to end a pregnancy. In the U.S., about 30% of females have had an abortion by the time they reach 45 years old. There are many reasons why a pregnant female may consider abortion. An unwanted pregnancy can happen with contraceptive failures or rape. Sometimes, medical complications for either the pregnant female and/or fetus make continued pregnancy unsafe.

There are 2 types of abortions – medication-induced, and surgically-induced. Before any abortion is performed, a healthcare provider will need more health information from the pregnant female. This usually includes a full physical exam with urine pregnancy test, complete medical history, updated medication list, blood tests, and sonogram. Most providers will also discuss alternative options to abortion, and answer any questions or concerns about abortion.

Abortion Laws ⁴

Any pregnant female who is 18 years or older can make the decision to have an abortion without any law restrictions. They do not have to alert their partner or family of their decision for abortion. Any female younger than 18 years old who wants an abortion will likely have some legal restrictions. These restrictions usually involve one (or both) types of mandatory parental involvement. *Parental Consent* is when one or both parents must give permission for their daughter to have an abortion. *Parental Notice or Notification* is when one or both parents must be notified by their daughter's healthcare provider that she is planning to have an abortion.

Most all states have exceptions to parental involvement laws that allow for situations where daughters do not live with their parents, cannot contact them, or are independent of their care. You do not need to get permission or notify your parent(s) if you can show to a judge that

you are independent of their care and control – such as proof of residence elsewhere or utility bills. Many states allow for “judicial bypass”. This is when a female seeking an abortion can ask a judge permission to have an abortion, instead of asking a parent or guardian. Your healthcare provider can help you find out more about your state’s specific laws. The following is some basic information on state laws regarding abortion for females less than 18 years old.

- Alabama:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Alaska:** One of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement. This law only applies to females less than 17 years old.
- Arizona:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Arkansas:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- California:** No parental permission or involvement is required.
- Colorado:** One of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement. If you do not live with your parents, but you live with a relative, that relative may be told in place of your parents (grandparent, an adult aunt, or an adult uncle).
- Connecticut:** No parental permission or involvement is required.
- Delaware:** Requires that one of your parents, a grandparent, or a mental health professional must be told of your decision 24 hours before your

abortion. A judge can excuse you from this requirement. This law only applies to females less than 16 years old.

- Washington, D.C.:** No parental permission or involvement is required.
- Florida:** One of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement.
- Georgia:** One of your parents must be told of your decision 24 hours before your abortion. A judge can excuse you from this requirement
- Hawaii:** No parental permission or involvement is required.
- Idaho:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Illinois:** Requires that one of your parents, a step-parent living in your household, or a grandparent must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement.
- Indiana:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Iowa:** Requires that one of your parents or grandparent must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement.
- Kansas:** Requires that both of your parents give permission for abortion. A judge can excuse you from this requirement. If your parents are separated or divorced, only the parent with custody of you must give permission.

- Kentucky:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Louisiana:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Maine:** No parental permission or involvement required .
- Maryland:** Requires that one of your parents must be told of your decision before abortion. A doctor can excuse you from this requirement. There is no time-frame for alerting your parent(s) of your decision. Females are exempt from this law if they do not live with either parent, and a “reasonable effort” to give notice is unsuccessful.
- Massachusetts:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Michigan:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Minnesota:** Requires that both of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement
- Mississippi:** Requires that both of your parents give permission for abortion. A judge can excuse you from this requirement.
- Missouri:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Montana:** No parental permission or involvement required.

- Nebraska:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Nevada:** No parental permission or involvement required.
- New Hampshire:** Requires that one of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement.
- New Jersey:** No parental permission or involvement required.
- New Mexico:** No parental permission or involvement required.
- New York:** No parental permission or involvement required.
- North Carolina:** Requires that one of your parents, or a grandparent that you have lived with for at least 6 months, give permission for abortion. A judge can excuse you from this requirement
- North Dakota:** Requires that both of your parents give permission for abortion. A judge can excuse you from this requirement.
- Ohio:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Oklahoma:** Requires that one of your parents must be told of your decision 48 hours before your abortion. Oklahoma also requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Oregon:** No parental permission or involvement required
- Pennsylvania:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.

- Rhode Island:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- South Carolina:** Requires that one of your parents or a grandparent give permission for abortion. A judge can excuse you from this requirement. This law only applies to females less than 17 years old.
- South Dakota:** Requires that one of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from this requirement.
- Tennessee:** Requires that one of your parents give permission for abortion. A judge can excuse you from this requirement.
- Texas:** Requires that one of your parents give permission for abortion. Texas also requires that one of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from these requirements.
- Utah:** Requires that one of your parents give permission for abortion. Utah also requires that one of your parents must be told of your decision 24 hours before your abortion. A judge can excuse you from the parental permission requirement, but not the 24-hour parental notice requirement. You can be excused from the 24-hour parental notice requirement if you only have one parent, and that parent has abused you, and your doctor reports this abuse to the appropriate authorities. You can also be excused from the 24-hour

parental notice requirement if your parent has “failed to take responsibility for your personal care”.

Vermont:

No parental permission or involvement required.

Virginia:

Requires that one of your parents, or a grandparent or adult sibling you live with, give permission for abortion. Virginia also requires that one of your parents, or a grandparent or adult sibling you live with, must be told of your decision 24 hours before your abortion. A judge can excuse you from these requirements.

Washington:

No parental permission or involvement required.

West Virginia:

Requires that one of your parents must be told of your decision 24 hours before your abortion. A judge or doctor (one who is not performing the abortion) can excuse you from this requirement.

Wisconsin:

Requires that one of your parents, a foster parent, a grandparent, an aunt, an uncle, or a sibling who is at least 25 years old give permission for abortion. A judge can excuse you from this requirement.

Wyoming:

Requires that one of your parents give permission for abortion. Wyoming also requires that one of your parents must be told of your decision 48 hours before your abortion. A judge can excuse you from these requirements.

Any place where the term “parent” or “parents” is used can be substituted with the term “legal guardian” or “legal guardians”. Many states have mandatory waiting periods (typically 24-48 hours) before a female can undergo an abortion after making the decision to have one. During

this waiting period, patients are given state-published information about abortion to review, as well as time to give notice to their parent(s). Most states will not uphold these laws if you require an immediate abortion due to a medical emergency. Some hospitals and health clinics have their own rules about which situations they will perform abortions, and when exceptions can be made.

At the Clinic ²

Medication-induced abortions require a prescription written by a healthcare provider. Some offices and clinics already have these medicines available for you without a trip to the pharmacy. Other times, you may have to take this prescription to a local pharmacy to be filled. Some Planned Parenthood clinics may also provide this medication directly to you. For surgical abortions, certain healthcare provider offices, clinics for family planning and reproductive health, and places like Planned Parenthood can provide these services directly.

It can be difficult or even dangerous to approach abortion facilities because of protestors. Most all clinics have protocols in place to help protect patients. If you see protestors outside the clinic and do not feel safe or comfortable, call the clinic directly. Clinic staff will be able to tell you how to safely enter and exit the clinic. The following are a list of tips from the National Abortion Federation's (NAF) website on how to safely enter and exit a clinic with protestors.

Know Where You're Going. Many people find that having detailed information about the clinic's location, what the building looks like, or which door to enter helps them feel more comfortable and confident about arriving at the clinic.

Wear Earphones. Some people find it helpful to listen to music when they arrive at the clinic. If there are protestors at the clinic, listening to music can block out whatever protestors might be saying, and deter them from approaching you.

Bring A Friend. Many people find that it helps to have a friend, relative, or partner come with them to the clinic. Even if that person isn't able to stay with you for your appointment, it might ease your mind to have a support person with you when you arrive at the clinic.

Look for Clinic Escorts. Many clinics have volunteer escorts who stand outside the clinic and walk with patients. Most often, these volunteer escorts wear vests that clearly identify them as clinic escorts. They are trained on how to help patients feel comfortable and safe.

If a Protestor Approaches You. You don't need to talk to them, answer their questions, or take any of the literature that they might try to give you. Some people find they feel most comfortable if they look straight ahead, avoid eye contact with protesters, and walk quickly and confidently.

Abortion Pills ⁵

This method involves two medications – mifepristone and misoprostol. Mifepristone is taken first (usually at the clinic or office), and blocks the hormone progesterone. Without enough progesterone, the uterine lining begins to break-down. After 24-48 hours, misoprostol is taken at home. Misoprostol can be taken orally, or the tablets can be placed inside the vagina. This medication will cause your uterus to contract, allowing the uterine lining and other tissues to be expelled – this process is very much like having a period – there will be bleeding and cramping. Complete abortion occurs about 4-5 hours after taking misoprostol. Medication-induced abortions are for pregnancies less than 11 weeks along. Some states have laws against using this method past 49 days (7 weeks) of pregnancy.

Some healthcare providers have different directions for how to take these medications – some providers will have you take smaller, more frequent doses, or prescribe active ingredients that are slightly different but do the same thing. Be open with your provider, and discuss any concerns you have about using different doses or medications than what is typically used. After 14 days, you'll need to have a follow-up appointment with your healthcare provider to make sure the abortion is completed.

Surgical Abortion ⁶

There are 2 kinds of surgical, or “in-clinic” abortions. Both procedures are very effective and safe. Vacuum aspiration is the most common type of surgical abortion used in the U.S. This type of procedure can be performed up to 16 weeks after a female's last period. Vacuum aspiration usually takes about 5-10 minutes, but more time may be needed if your cervix takes a while to stretch, or if you require any extra procedures or physical exams before the procedure. This time also doesn't include any time spent speaking with your healthcare provider or a counselor, or filling out paperwork. After the abortion procedure, recovery time at the clinic is usually about an hour. Dilation and evacuation (D&E) abortion is another type of surgical abortion procedure. D&E is used in cases where vacuum aspiration is not used – usually in cases occurring 16 or more weeks after a female's last period. D&E usually takes longer than vacuum aspiration, about 10-20 minutes. More time may be needed if your cervix takes time to stretch, or if you require any extra procedures or physical exams before the abortion, or time spent speaking with your healthcare provider, counselor, or filling out paperwork. After the abortion procedure, recovery time at the clinic is usually about an hour.

Abortion Costs^{2,6}

Every healthcare provider has a different way of charging for abortion services. This cost is not always related to the quality of care you may receive. Medication-induced abortions can cost up to \$800, and surgical abortions are usually even more. The type of abortion, instruments and medications needed, and length of pregnancy so far can affect the cost of an abortion. You should ask about the types of payment accepted – some clinics will only accept cash, while others may be able to use your health insurance or other payment methods. You can always call your insurance company and ask about abortion procedure coverage. Some clinics accept state-funded healthcare, and all must accept state-funded healthcare in situations involving rape, incest, or life endangerment (however, some states do not follow these laws).

Safety⁵⁻⁷

Abortions are not risk-free. Most abortion procedures are safe, and do not cause any long-term physical harm. The risks associated with abortion depend on the type of abortion used. Most females experience some degree of cramping or pain, similar to cramps felt during menstruation. Providers may offer you pain medications to help you relax during the procedure. In the next 24 hours, you may have cramps, heavy bleeding, bleeding that starts and stops, and small blood clots (which could be the size of a quarter). For the next 6 weeks, you may still notice bleeding and small blood clots. It's important to not insert anything into your vagina for at least 7 days after an abortion. If you experience any bleeding, only use pads or liners. You can shower right away, but do not douche or take baths.

Serious complications related to abortion are rare, and depend on the type of procedure used. Any healthcare you receive should be performed by a trained professional to ensure the lowest risk of complications. Never attempt to perform an abortion on your own.

Get medical help right away if you notice any severe abdominal pain that is not relieved with medications, rest, or heat, chills and fever $>100.4^{\circ}\text{F}$, nausea, vomiting, diarrhea that continues 24 hours after your procedure, heavy bleeding that soaks through 2 or more maxi pads an hour for 2 or more hours in a row, or blood clots larger than a lemon for 2 or more hours, or unpleasant smelling vaginal discharge.

Resources

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CHAPTER 2: B IS FOR BIRTH CONTROL PILLS

What is an Oral Hormonal Contraceptive? ¹⁻⁶

The most commonly used female contraceptive in the U.S. is the oral hormone contraceptive. Today, these products can be split into 2 categories – combination products (which have both estrogen and a progesterone), and progestin-only products. These products usually contain enough pills for a 28-day hormone cycle, including 2, 4, or 7-days of placebo (inactive, “sugar” pills) to allow for a monthly period. Some of these products add iron to these inactive pills as a supplement to help with anemia and fatigue due to blood loss during menses. Some products do not have any inactive pills to take during menses, so you must find another way to keep track of the days left until you restart your active pills. Other products have 84 or more pills, which allow for a period once every 3 months.

Combination oral contraceptives can be divided into 4 categories, based on the amounts of active ingredients during 1 complete cycle. In **monophasic** pills, the amounts of estrogen and progestin taken each day remain the same throughout the entire cycle. In **biphasic** pills, the amounts of either estrogen, progestin, or both ingredients change once during the cycle. In **triphasic** pills, the amounts of either estrogen, progestin, or both ingredients change twice during the cycle. In **4-phasic** pills, the amounts of either estrogen, progestin, or both ingredients change three times during the cycle

You can usually tell if your oral contraceptive has different phases by looking at the colors of the pills themselves. For example, 3 colors of pills in your packet most likely means you have a biphasic contraceptive with differently-colored placebo pills. Using different amounts of active ingredients throughout the cycle can more closely mimic a female's natural hormone cycle (see, “F is for Female Reproductive Cycle & Menses”), and can decrease the overall

amount of hormones needed to provide contraception. All combination oral contraceptives are considered equally effective.

The type of estrogen in combination pills is usually the same from product to product. “Low-dose” combination contraceptives have less than the typical 35 micrograms of estrogen. Low-dose combination products are an alternative for females who have side effects from higher-dose products. There are many types of progestins used in combination products. The type of progestin used can play a major role in the development of side effects. Ask your doctor or pharmacist about which type of progestin may be best for you.

Any female who desires hormone-containing contraception can most likely find a product that is right for them. And, oral contraceptives can be used for treating other conditions, like endometriosis, Pelvic Inflammatory Disease (PID), irregular menstrual cycling, heavy menstrual flow and blood loss, dysmenorrhea (see “P is for Pre-Menstrual Disorders”).

Certain females should not use oral contraceptives, or should consider low-dose combination or progestin-only products. This group includes females with a history of heart attack, stroke, or blood clots, history of other heart diseases like high blood pressure, known or possible reproductive cancer(s) like breast or uterine, anyone older than 35 years old, anyone who currently smokes, or undiagnosed vaginal bleeding. Ask your doctor if you have, or are at risk for, any of these conditions.

All oral contraceptives are available by prescription only. Because of the Affordable Care Act, many insurance companies now offer lower-cost (or no cost) contraceptive products (see, “L is for Law Review” for more information). You can ask your insurance company for a “formulary list” – this is a list of all the medications covered by your plan, and includes prices. Bring this list to your healthcare provider; together, you can find a product that works for both

your body and your budget. Don't forget to ask your insurance company about the prices of 1-month versus 3-month supplies of your prescription. Reproductive health clinics like Planned Parenthood also offer oral contraceptives on an income-based price scale if you have no insurance or a limited insurance plan. A single month of contraceptive pills can range between \$20-100+ without insurance coverage.

Oral contraceptives prevent pregnancy in several different ways, including preventing ovulation, decreasing the response to other reproductive hormones like Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH), (see, "F is for Female Reproductive Cycle & Menses" for more information), preventing the travel of sperm and egg through reproductive tract by thickening cervical mucus, and preventing the endometrium (uterine lining) from changing into a more suitable tissue for egg implantation.

Progestin-only products only inhibit ovulation 60-80% of the time. These products rely on cervical mucus thickening and changes in the uterine lining to prevent pregnancy. Because of the many ways in which oral contraceptives prevent pregnancy, these products (when used correctly) are very effective. In addition, the other benefits of these products, and their overall reduced cost, make them very popular contraceptive choices.

Oral contraceptives are not side-effect free. Depending on the active ingredient(s) and the amounts of active ingredient(s) in each product, some side effects may be more common than others. More common, but less serious side effects of these products may include mild or worsening headaches, or worsening migraines, water-retention (edema) or swelling, bleeding during active pills (breakthrough bleeding), lack of bleeding (withdrawal bleeding) during week of placebo/no active pills, which can be mistaken as a pregnancy, complete loss of menstrual bleeding during placebo/no active pill days (amenorrhea), weight gain, increased risk of vaginal

infections (see, “Y is for Yeast Infections”), darkening of skin color (about 5% of users with 1 year of use), nausea and breast pain or tenderness with estrogen-containing products, and improvement in acne with estrogen-containing products. Certain progestin-containing products may be more likely to cause worsening acne, depending on the type of progestin used, hirsutism (abnormal hair growth), more frequent or unpredictable breakthrough bleeding (about 25% of users), and mood changes or depression. These side effects may not be bothersome, and typically go away after stopping or switching products. Abnormal bleeding issues can sometimes go away on their own with continued use of the product (typically within 1 year or more). Progestin-induced side effects can be improved by switching to a different kind of progestin.

Combination oral contraceptives may have a 99.9% effectiveness rate when used correctly. When combination products are not always used correctly, about 5-12 pregnancies occur per 100 females during 1 year of use. Progestin-only oral contraceptives may have a 99.9% effectiveness rate when used correctly. However, users of progestin-only products must take them at the exact same time every day; small changes in the timing of these pills can drastically decrease their effectiveness. Oral contraceptives do not protect against STIs.

Resources

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CHAPTER 3: C IS FOR MALE & FEMALE CONDOMS

Male Condoms ^{1-5, 8-10}

Male condoms are an inexpensive, non-hormone containing contraceptive device worn by males. They are available in several kinds of materials. Most male condoms sold in the U.S. are made of latex. Some people are allergic to latex, and cannot use latex condoms. Latex-free options include lambskin and polyurethane. Male condoms are available in many different sizes, shapes, materials, and flavors. Condoms can be purchased at drug stores, pharmacies, grocery stores, and even gas stations. Many clinics and websites also offer free or low-cost condoms. Some insurance companies will pay for condoms if you have a prescription from a doctor. You can always ask your local pharmacist about the types of condoms and lubricants available, and which product(s) would be right for you.

Male condoms are not just for contraception; they also protect against STIs and other infections. Anyone who is having oral, anal, or vaginal sex can be at risk for STIs. Condoms made from latex and polyurethane are the only condoms that can protect against viral STIs. Condoms made of lambskin will not protect against viral STIs like HIV (see “S is for STIs”), but will protect against bacterial infections. Condoms with spermicides are no longer recommended for use because they do not offer any more protection against pregnancy and STIs than non-spermicidal condoms. Condoms with spermicides may actually increase your risk of getting Human Immunodeficiency Virus (HIV). It is important to protect yourself and your partner(s) from STIs.

Condoms create a “wall” between partners, which prevents precum, semen, and other infectious bodily fluids from being shared. Condoms also protect against skin-to-skin contact

with genital lesions and other skin infections. Condoms only protect against STIs if they are correctly applied **before any sexual activities begin**. Never attempt to reuse or wash a condom.

When used correctly, male condoms are effective 98% of the time. Poorly fitted or applied condoms can lead to tears or spillage of semen or other bodily fluids. Male condoms tear more easily than female condoms, but are less likely to slip off. Any oil-based lotions, lubricants, or medications can also cause male condoms to tear. Products like K-Y Jelly™ or Astroglide™ should be used because they are water-based, and won't affect the condom material. Male and female condoms should not be used together. Condoms do not offer 100% protection against pregnancy and STIs – always ask your doctor or pharmacist about what else you can do to maximize your protection against pregnancy and STIs.

Female Condoms ^{1-2, 6-7}

Female condoms are a non-hormonal contraceptive device for females. Most female condoms are made with a synthetic, latex-free material called nitrile. Female condoms provide both protection against STIs and prevent pregnancy. Female condoms are shaped like a small tube, with 1 closed end, and 1 open end. These ends each have a flexible ring to help with insertion. The closed end forms a “bag” within the vagina, which traps semen and other bodily fluids. Female condoms may be more difficult to find than male condoms, but can be purchased at most pharmacies and some grocery stores. Many clinics and websites also offer free or low-cost female condoms. Female condoms are more expensive than male condoms. You can always ask your local pharmacist about the types of condoms and lubricants available, and which product(s) would be right for you.

Female condoms are not just for contraception; condoms also protect against STIs and other infections. Anyone who is having oral, anal, or vaginal sex can be at risk for STIs. It is important to protect against these infections, regardless of the need for contraception.

Condoms create a physical “wall” between partners, preventing precum, semen, and other infectious bodily fluids from being shared between partners. Female condoms also protect against contact with genital lesions and other skin infections. A small portion of the female condom remains outside the vagina, and can be folded over the labia for added protection against sores and infectious bodily fluids. Condoms only protect against STIs if they are correctly applied **before any sexual activities begin**. Female condoms can be inserted up to 8 hours prior to any sexual activities.

When used correctly, female condoms are effective 98% of the time. Poorly fitted or applied condoms can lead to tears or spillage of semen or other bodily fluids. Female condoms are less likely to tear than male condoms, but female condoms are more likely to slip off. Because of the types of materials female condoms are made of, oil-based lubricants can be used, and won't damage the material. Male and female condoms should not be used together. Female condoms do not offer 100% protection against pregnancy and STIs – always ask your doctor or pharmacist about what else you can do to maximize your protection against pregnancy and STIs.

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CHAPTER 4: D IS FOR DEPO-PROVERA™ & DEPO-SUBQ™

Injectable Birth Control ¹⁻⁴

Depo-Provera™ and Depo-SubQ™ are injectable hormonal contraceptives for females. The active ingredient is medroxyprogesterone acetate, a type of progestin (see, “H is for Hormones”). Depo-Provera™ and Depo-SubQ™ do not contain any estrogens. These products are the same, except for how they are injected into the body. Depo-Provera™ is an intramuscular injection, which is given in a large muscle, such as the butt or arm (like a flu shot) every 13 weeks. Medroxyprogesterone acetate is also available as Depo-SubQ™. Depo-SubQ™ is a subcutaneous injection, which is given just under the skin on the stomach or thigh every 12-14 weeks. You cannot inject these products on your own. A doctor must inject Depo-Provera™ or Depo-SubQ™.

Depo-Provera™ and Depo-SubQ™ are great alternatives for females who struggle to remember to take a daily pill. Once injected, medroxyprogesterone provides protection against pregnancy for 3 months. Depo-Provera™ is available as a generic medication, and can be cheaper than other types of contraceptive products. Using injectable contraceptives means you'll have to see your healthcare provider several times a year. Some insurance companies may not cover the office visit to have your injection. Depo-SubQ™ is not available as a generic, and may be more expensive than Depo-Provera™.

Most females using medroxyprogesterone will notice changes in menstrual bleeding patterns, such as amenorrhea (loss of period), irregular spotting or bleeding, prolonged spotting or bleeding, and heavy bleeding. As females continue using medroxyprogesterone, fewer experience irregular bleeding and more experience amenorrhea. Long-term use of medroxyprogesterone may cause weakening of bones due to decreased bone storage of calcium.

Decreased calcium storage can lead to osteoporosis, or weak bones, which are more likely to break. Females should not use medroxyprogesterone injections for longer than 2 years, unless no other method of birth control can be used. Bone damage may not be reversible, even after the injections are stopped. This is especially worrisome for younger females whose bones are still growing and developing. Doctors may do a bone-density test before prescribing Depo-Provera™ or Depo-SubQ™. Females using medroxyprogesterone should have regular calcium and vitamin D intake. Females should ask their doctor and pharmacist about how much calcium and vitamin D they need while using medroxyprogesterone. Even after injections are stopped, medroxyprogesterone will continue to protect against pregnancy for several months, and up to 1 year. Depo-Provera™ and Depo-SubQ™ are very effective contraceptives. After 1 year of use, only 0.0-0.7% of females will still become pregnant.

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CHAPTER 5: E IS FOR EMERGENCY CONTRACEPTIVES

What are Emergency Contraceptives? ¹⁻⁷

Emergency contraceptive products (ECPs) are used when a female thinks she may become pregnant as a result of recent sexual activity. This could be from having unprotected vaginal sex with a male partner, experiencing a contraceptive failure while having vaginal sex with a male partner (like a condom breaking), forgetting to use contraceptives, or cases of known or suspected rape by a male attacker.

No matter the situation, one thing remains the same; timing of ECP use. For all of the following products, there is a limited window of time in which they can be used effectively. Beyond this point (typically 5 days, or 120 hours), the effectiveness of ECPs is much lower. This is because it takes about 5-7 days for sperm to finally reach the egg within the fallopian tube, fertilize it, and for that egg to reach the uterus for implantation. At any point before these events, ECPs can be used with high success rates. To clarify, the products listed in this section **do not cause abortion** (see, “A is for Abortion”). These products work **before** egg and sperm have a chance to meet and implant within the uterus. Implantation of a fertilized egg into the uterine tissue is the beginning of pregnancy (see, “Z is for Zygote to Fetus: What is Pregnancy?”).

Plan B One-Step™, Next Choice™, Take Action™, Aftera™, and many others like these are very easy to purchase and use. All of these products contain the active ingredient levonorgestrel, which is a type of synthetic progestin. Levonorgestrel is also used in some (but not all) oral birth control pills. The amount of levonorgestrel in ECPs is much higher than the amount in a birth control pill. There are 2 kinds of levonorgestrel containing ECPs – products with 1 pill (one-step) and products with 2 pills (two-step). Both products are equally effective,

and all two-step products can actually be used like a one-step product by taking both pills at the same time. Or, you can separate the doses of two-step products by 12 hours **exactly**.

Certain kinds of combination oral birth control pills can be used as emergency contraception. This method was developed by Canadian physician Dr. Abraham Yuzpe, who first began prescribing this type of emergency contraception in the 1970's. By taking several birth control pills at the same time, a female can get the same amount of active ingredients as she would have by using a product like Plan B™. The Office of Population Research at Princeton University, and the Association of Reproductive Health Professionals, created an online list of birth control pills that can be used as emergency contraceptives:

<http://ec.princeton.edu/questions/dose.html#dose>

If your birth control is not on this list, you should not use it as a substitute for a levonorgestrel-containing ECP. Before using this method, first talk to your doctor or pharmacist about whether this method is a good fit for your situation. Your pharmacist can also help you figure out how to restart taking your birth control pills from here.

There are several ways by which ECPs prevent pregnancy from occurring. Products containing levonorgestrel work by preventing ovulation, fertilization, and implantation, as well as thicken cervical mucus to limit the movement of sperm and egg. Ella™ works by inhibiting ovulation. Paragard™ works by releasing copper (a metal) into the uterus, which interferes with the movement of sperm and egg, and may prevent implantation.

Ella™ – Prescription-Only Oral ECP ⁸

Ella™ was approved by the Food and Drug Administration (FDA) in 2010, and is a one-time oral dose of ulipristal acetate. The active ingredient inhibits ovulation for 5 days following

its use. This product is available by prescription-only through either a healthcare provider or its website (see, “Q is for Questions & Resources”).

Paragard™ – Prescription-Only Intrauterine Device ⁹

Paragard™ is an Intrauterine Device (IUD) that can be used as a contraceptive device or as emergency contraception if inserted within 5-8 days of unprotected sex. Paragard™ can be left in place for up to 10 years (see, “I is for Intrauterine & Implantable Devices”).

Efficacy ^{1-7, 10}

Depending on how much you weigh, some ECPs may be more effective than others. Paragard™ is effective for females of all body weights. Ella™ is effective for any female with a Body Mass Index (BMI) less than 35. If your BMI is greater than 35, Ella™ may be less effective. Levonorgestrel ECPs and the Yuzpe method are effective for any female with a BMI less than 25. If your BMI is greater than 25, these methods may be less effective. You can do an internet search for a BMI calculator, like the one shown here:

<http://bmicalculator.cc/>

The effectiveness of ECPs depends on a number of factors, with timing being the most critical. When used within 72 hours after unprotected sex, levonorgestrel-containing ECPs reduce pregnancies by at least 89%, and about 74% for the Yuzpe method. These methods are still effective up to 120 hours after unprotected sex, but less effective than if they are taken sooner. Ella™ is 85% effective if used with 120 hours of unprotected sex, and stays just as effective regardless of when it is used within the 120 hour window. Paragard™ is up to 99% effective if placed within 5 days of unprotected sex. The best way to ensure you have access to ECPs in time is by being prepared before you need it. It's a good idea to purchase an ECP ahead

of time, just in case you (or a friend or partner) needs it. The expiration date on most products is a year or longer.

The biggest difference between one-step and two-step oral ECPs is the risk of side effects. When two-step pills are taken 12 hours apart, they are less likely to cause side effects. Possible side effects of all ECPs include nausea (about 40% of oral ECP users), vomiting, headaches, breast tenderness, stomach or leg cramps, and dizziness. There have been no reports of serious side effects associated with using ECPs. Using ECPs may affect the start of your next menstrual cycle. If you do not menstruate within 21 days of ECP use, you should take a pregnancy test. Oral ECPs should not be used in place of birth control products.

Purchasing an ECP

Your local health department, Planned Parenthood center, your prescription insurance carrier, and other centers both locally and online can help you find and pay for ECPs. Oral ECPs are also available at your local pharmacy, and can be purchased by anyone who requests them. In some states, your prescription insurance can pay for ECPs. Some states require a written prescription (which your doctor, or possibly a pharmacist, can write for you) and other states do not. Before heading to the pharmacy, you may want to call first – here's why:

Some pharmacies do not have many ECPs on their shelves, or may only have 1 type of product available for purchase. Pharmacists have the legal right to deny the sale of certain products that go against their moral or ethical views. However, many pharmacists and the companies they work for will try to find a way to help you get the ECP you want. Usually, this is just by having another pharmacist, pharmacy technician, or store employee handle the transaction, or by directing you to another local pharmacy. ECPs can be legally sold through

a drive-thru pharmacy window. You can call ahead and ask if this is something the pharmacy is willing to do for you.

Because of these reasons, it's best to call the pharmacy ahead and ask to speak to a pharmacist. Pharmacists can also help you determine whether or not an ECP is right for you or your partner(s), and which ECP would be best for your situation.

The cost of ECPs depends on how and where you get them, as well as the type of product you pick up. Many clinics offer lower-cost options based on your income. An average price for oral ECPs is between \$30-65 per product purchased. Paragard™ and other IUDs can be between \$500-900, but work for several years (see, "Q is for Questions & Resources").

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CHAPTER 6: F IS FOR FEMALE REPRODUCTIVE CYCLE & MENSES

What is Menstruation? ¹⁻³

When females reach puberty, their bodies go through lots of changes. This includes menstruation, or starting a period. Having a period is an important part of becoming an adult female, but it can be scary the first few times it happens. Changes in the brain signal the body to start menstruating. The brain begins releasing luteinizing hormone (LH) and follicle-stimulating hormone (FSH). These hormones tell the ovary to produce estrogen and progesterone (see, “H is for Hormones”). These 4 hormones regulate the female reproductive cycle.

The female reproductive cycle can be divided into 2 phases. The first phase, called the follicular phase, is when uterine tissue begins to grow. The second phase, or luteal phase, includes preparing the uterine lining for menses. Ovulation occurs between the follicular and luteal phases. This entire cycle repeats about every 28 (21-35) days.

Follicular Phase ¹⁻³

Increasing levels of LH and FSH cause a single egg within the ovary to begin to mature. This phase is called the follicular phase because a follicle (egg cell) is formed and prepared for ovulation. As this single egg grows and matures, it begins to secrete estrogen. This estrogen signals the brain to stop producing LH and FSH, which prevents other egg cells from maturing. Estrogen also causes the lining of the uterus to grow thicker. It prepares muscles within the fallopian tube to carry the egg, if it becomes fertilized, into the uterus for implantation. Estrogen also causes the cervix to release a more-watery mucus (discharge). This watery mucus is much easier for sperm to travel through to reach the fallopian tube and egg cell. At the end of the follicular phase, estrogen levels reach a critical high for about 36 hours. During this time, LH

and FSH are released in high concentrations very quickly. LH and FSH now cause the matured follicle (egg) to be released from the ovary and into the fallopian tube (ovulation). Once the egg is released, it can be accessed by sperm to cause pregnancy.

Luteal Phase and Menstruation¹⁻³

Within 1-2 days of ovulation, the follicle transforms into a new tissue called the **corpus luteum**, which produces large amounts of progesterone, and less estrogen. Progesterone signals the uterine lining to stop thickening, stops the fallopian tube muscles from continuing to develop, and thickens cervical mucus. If fertilization doesn't occur, the corpus luteum slowly begins to stop releasing hormones, and menstruation occurs. The previously thickened uterine lining is shed. The drop in hormone levels signals the brain to begin the cycle again, and repeats itself starting with the follicular phase.

Feminine Hygiene Products⁴

There are 3 main kinds of products available for females to use during their periods. Some products are better for certain situations than others. There's also a color-coding system that most pad and tampon makers follow:

Dark Purple:	Most absorbent (heaviest flow)
Orange:	Very-very absorbent (usually called "overnight" for pads)
Green:	Very absorbent
Yellow:	"Regular" absorbency
Light Purple:	"Light" absorbency (great for younger females who are just starting to menstruate, and for light flow days – usually the beginning and end of your menses cycle).

As tampons and pads increase in absorbency, they also increase in size. For tampons, this means they get wider. For pads, this means they sometimes get wider, and usually always get longer from front to back. For menstrual cups, larger cups can hold more menses blood, and smaller cups hold less.

Sanitary Napkins⁴

Sanitary napkins (pads, liners, maxi pads) are pieces of absorbent material that are worn between you and your underwear to absorb menses blood. Pads come in all shapes and sizes. All pads and liners have a sticky backing, which holds them to the inside of your underwear. Some types of pads and liners come with “wings” – extra pieces that fold around the center of your underwear for added protection and grip. Liners are very thin, and are great to wear with a tampon for extra protection. Pads with orange or dark purple packaging are great for overnight use, because the extra length provides extra protection for the front and back of your underwear.

You can buy “reusable” pads, usually online or at a specialty store. These pads clip onto your underwear, and can be washed and reused. These are a great option if you're worried about saving money or saving landfill space. But, most pads aren't meant to be washed and reused, and they should **never** be flushed. To dispose, remove the pad from your underwear, fold it up, wrap it in a few pieces of toilet paper, and put it in the trashcan. If you're in a public restroom, the small metal box hanging on the inside of the stall is for disposing of used tampons and pads.

You should change your pad or liner every 3-4 hours, unless you wear one to bed. Changing your pad or liner often can help prevent bacteria from building up, which can cause irritation and odor. Some pads and liners are sold with deodorants or fragrances – these products can cause vaginal irritation in some females.

Tampons ⁴

Unlike pads and liners, tampons absorb menses blood before it leaves your body. Tampons are inserted into the vagina with a small applicator (or your fingers), leaving a short string hanging outside of your body. This string can be easily tucked into your underwear. Gently pulling on this string pulls the tampon out.

Tampons aren't meant to be washed and reused. Some tampons are advertised as "flushable", but be warned – many older plumbing systems aren't meant to handle tampons (or applicators). To dispose, gently pull the tampon string until the tampon comes out, then wrap it in a few pieces of toilet paper, and put it in the trashcan. If you're in a public restroom, the small metal box hanging on the inside of the stall is for disposing of used tampons and pads. It can be hard to tell when a tampon needs to be changed since it's inside your vagina. You should change your tampon every 4-6 hours, or sooner if the string is red (meaning the tampon has absorbed its maximum amount). Changing your tampon often can help prevent bacteria from building up, which can cause irritation and odor. Some tampons are sold with deodorants or fragrances – these products can cause vaginal irritation in some females. If tampons are left in too long, it's possible to develop an infection called Toxic Shock Syndrome, or "TSS" (see, "T is for Tampons & Toxic Shock Syndrome").

Before using a tampon, wash your hands. And, always follow the instructions provided inside the tampon box. It can be difficult the first few times – try using a small, thin tampon (light purple) with a plastic applicator for easier insertion. Trying tampons for the first time might be easier on a day when your flow is heavier, which can help the tampon glide in more easily. If you can't find the string, or it breaks, don't worry - tampons can't get "lost" inside your body – your cervix (see, "W is for What is Sex") is too small for a tampon to go through. Remember to stay relaxed, and use your fingers to gently pull the tampon out. Every female at some point has accidentally put in a new tampon before removing the old one. Again, stay relaxed, and gently probe with your fingers until you pull both tampons out. Using tampons doesn't mean

you're no longer a virgin (see, "W is for What is Sex"). Females who haven't had sex can still use tampons.

Menstrual Cups ⁴

Like tampons, menstrual cups (or Diva Cups) are inserted into the vagina. But, menstrual cups are not made of absorbent material – instead, they are made of soft, flexible materials like rubber or silicone. Menstrual cups fit over the cervix, and are meant to catch menstrual blood as it flows out. And, like tampons, it's difficult to tell when a menstrual cup is full, so you'll want to replace it every few hours. Some menstrual cups are disposable, and others are reusable. They also come in a variety of sizes for heavy or lighter flows.

Before using a menstrual cup, wash your hands. And, always follow the instructions provided inside the menstrual cup box. It can be difficult the first few times – keep trying, with practice you'll get the hang of it. Trying menstrual cups for the first time might be easier on a day when your flow is heavier, which can help the menstrual cup glide in more easily.

Menstrual cups are not as commonly used as tampons, so you might have trouble finding them in stores. And, even though they look like diaphragms or female condoms, menstrual cups are not meant to be used as contraceptives or STI protection. Using menstrual cups doesn't mean you're no longer a virgin (see, "W is for What is Sex"). Females who haven't had sex can still use menstrual cups.

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CHAPTER 7: G IS FOR GARDASIL™

What is Human Papilloma Virus? ¹⁻⁵

Genital Human Papillomavirus (HPV) is the most common sexually transmitted virus in the U.S, and will affect most all sexually-active males and females at some point during their lives. Current estimates suggest that approximately 79 million Americans currently have HPV, with about 14 million new infections happening every year. HPV can cause many different problems, for both males and females (see, “S is for Sexually Transmitted Infections”). HPV can cause genital warts, mouth and throat cancers in both males and females. In males, HPV can cause penile cancer. In females, HPV can cause cervical, vulvar, vaginal, and other genital cancers. Some HPV infections will go away on their own without treatment, and other infections won't. People that become infected with certain kinds of HPV will have it for the rest of their lives. There is no cure for these kinds of HPV. HPV is very easily spread through **genital or oral contact of any kind** with someone who has HPV. It only takes one instance of genital contact to get HPV. You can still get HPV from someone who doesn't have any visible warts or other symptoms, or from objects (like sex toys) used by someone with HPV.

What is Cervical Cancer? ⁴⁻⁵

Cervical cancer is the 2nd leading cause of cancer deaths in females around the world. In the U.S., more than 10,000 females are diagnosed with cervical cancer every year, and more than 4,000 will die from it. Many other males and females die from other cancers caused by HPV every year. Even just one instance of sexual contact with an HPV positive person can lead to cancer. Since there is no cure for HPV infection, we must rely on prevention through vaccination.

HPV Prevention ^{1-2, 6-7}

The best way to avoid getting HPV is by preventing it. Gardasil™ is a vaccine that helps protect against several different types of HPV. For Gardasil™ to be as effective as possible, it's important to get vaccinated before you become sexually active for the first time. Gardasil™ is recommended for 11- and 12- year old males and females. Gardasil™ is also approved for use in children as young as 9 years old. Gardasil™ is given as a 3-dose series, which means you will have to get 3 injections before you are completely protected. If you did not get vaccinated as an 11 or 12 year old (or before you became sexually active), you can still get some protection from HPV by getting vaccinated now. Females ages 13-26 years old and males ages 13-21 years old should still get vaccinated with a 3-dose series. Males ages 22-26 years old should get vaccinated with a 3-dose series if they have sexual contact with other males, have HIV or other immune-system diseases, or are taking certain medications.

There are 2 types of HPV vaccine – one for both males and females, and another for females only. The difference between these vaccines is the types of HPV virus they protect against. Certain kinds of HPV cause genital warts (strains 6 and 11, which cause 90% of all genital wart cases), and others cause cervical cancers (strains 16 and 18, which cause 70% of all cervical cancer cases). Cervarix™ is only approved for females because it only protects against 2 HPV strains - cervical cancer-causing strains 16 and 18. Gardasil™ is approved for males and females because it protects against the 2 strains that cause genital warts, 6 and 11, as well as the 2 strains that cause cervical cancer, 16 and 18. Gardasil™ also protects against other types of cancers, like 80% of anal cancers in men, 50% of vulvar and 70% of vaginal cancers in women.

Protection from HPV through vaccination is expected to be long-lasting. Since these vaccines only became approved for use a few years ago, scientists are not completely sure how

long HPV vaccines provide protection. Scientists know that these vaccines last for at least 10 years (years of research is done before vaccines are given to the public), but more research is needed before we know exactly how long these vaccines will protect us. No vaccine is 100% effective. HPV vaccination may not protect everyone who receives it, nor will it protect against diseases caused by other rarer-types of HPV, or other types of viruses. HPV vaccination is not a substitute for cervical cancer screenings, or other STI and cancer screenings (see, “X is for Sexual Health Exams”). HPV vaccines won’t treat active cases of genital warts or cancer. Like all vaccines, HPV vaccines will be monitored for unusual or severe problems by the Federal Drug Administration (FDA) for as long as they are still available.

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CHAPTER 8: H IS FOR HORMONES

What are Hormones? ¹⁻⁴

Hormones are chemical messengers produced in humans and other creatures. Hormones carry messages from the brain to the reproductive organs, skin, bones, and many other organ systems. And, these organs send messages back to the brain in the form of hormones. Hormones are an important part of puberty and sexuality. The 3 most important types of hormones related to puberty and sexuality in humans are estrogens, progestins, and androgens.

Estrogen ¹⁻³

There are several different estrogens that the body makes, but all are important for healthy body function. Both males and females produce estrogen. Estrogen helps with skin and blood vessel growth and development, healthy bone development, metabolism and cholesterol production in both males and females. Estrogen can affect different parts of the body, depending on the gender of the person.

In females, estrogen helps the vagina, uterus, breasts, and other tissues grow and develop. Estrogen causes pubic and armpit hair growth, increased body fat (especially around the hips, buttocks, and breasts), and skin darkening around the nipples and groin. Estrogen affects the blood's ability to form and destroy blood clots, and can decrease the risk of colorectal cancers. It also affects mood and sexual desire. Estrogen also helps regulate the female hormonal cycle (see, "F is for Female Reproductive Cycle & Menses"). The female reproductive cycle occurs when estrogen levels rise and fall with progesterone levels, leading to a monthly period. Hormone-containing contraceptives contain synthetic versions of estrogen (see, "B is for Birth Control Pills"). In males, estrogen keeps testosterone levels in balance with other hormones, which increases fertility. Estrogen also prevents **macroorchidism** – testicles that are abnormally large.

Females mainly produce estrogen in their ovaries, but also within fat stores and the adrenal glands (which sit above the kidneys). Males produce some estrogen in their testicles, but most is converted into estrogen from other hormones in the body. Not only do we get estrogen from our bodies, but we also come into contact with estrogens in our environment. Several naturally occurring and synthetic chemicals can affect the activity of estrogen in the body. Flavones, isoflavones, phytoestrogens, and coumestans are chemicals found in some plants (especially soy) and fungi, and they mimic estrogen activity in humans. Some pesticides, chemicals, and cigarette smoke can also affect estrogen activity. Compared to the estrogens humans make, estrogen-affecting chemicals are very weak. Very large amounts of these products are needed to see a substantial effect in the body. However, scientists may find that repeated exposure to these chemicals in our environment is not completely harmless either.

Progesterone ¹⁻²

Progesterone is the most important hormone in the progestin family. In females, progesterone is released from the ovaries. In males, progesterone is released from the testicles. Progesterone can also be made from cholesterol in both males and females.

In both males and females, progesterone creates estrogens, androgens (like testosterone) and other chemicals, affects sexual desire, increases the body's production of insulin, which is needed to help the body store away energy from food, regulate body temperature and breathing, and increases blood pressure. In females, progesterone plays an important role in the reproductive cycle (see, "F is for Female Reproductive Cycle & Menses") and pregnancy (see, "Z is for Zygote to Fetus: What is Pregnancy?"). When used alone in large, injected doses (see, "D is for Depo-Provera™ & Depo-SubQ™"), progesterone causes prolonged **anovulation** (lack of ovulation) and **amenorrhea** (lack of menses, or period).

Testosterone^{1-2,4}

The most important androgen is testosterone. Testosterone can be converted from, and into, many other hormones, including estrogen. Testosterone is important for male and female development. In both males and females, testosterone affects pubic and armpit hair growth, sexual desire, and increased metabolism. In males, testosterone controls sperm production, growth and development of testicles, penis, and prostate, increases oil production in skin, causes muscle development in the chest, shoulders, throat, and vocal cords.

About 30% of a female's testosterone is produced within the ovaries. Other sources of testosterone in females include the adrenal glands and conversion of other androgens into testosterone. Males produce approximately 95% of their daily testosterone in the testicles, while only a small amount is produced from the adrenal glands.

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CHAPTER 9: I IS FOR INTRAUTERINE & IMPLANTABLE DEVICES

What are Intrauterine Devices? ¹⁻⁵

Intrauterine devices (IUDs) are a type of long-acting, reversible contraception for females. IUDs are available with and without hormones. There are 3 hormone-containing IUDs available (Mirena™, Skyla™, and Liletta™), and 1 copper-containing IUD (Paragard™). IUDs are one of the most effective and long-lasting forms of contraception. Certain IUDs are also approved for treating heavy menstrual flow (Mirena™) and as an emergency contraceptive product (Paragard™ – see, “E is for Emergency Contraceptive Products”).

IUDs are inserted through the vagina and into the opening of the cervix. This requires a trained healthcare provider, and an office or clinic visit. IUDs do not come from the pharmacy – your healthcare provider will order you one. The shape of an IUD allows it to gently “hang” from the opening of the cervix. IUDs can be inserted at any point in the menstrual cycle. If the IUD is inserted within 7 days of starting menses, back-up contraception is not needed. If the IUD is inserted more than 7 days after starting menses, back-up protection is needed for 7 days after insertion. When it is time for a new IUD, the old IUD can be replaced with a new IUD during the same appointment.

After insertion, an ultrasound from inside the vagina may be used to check the position of the IUD. Your healthcare provider will need to see you 4-6 weeks after inserting the IUD to make sure it is still in place. Your healthcare provider will likely give you a routine checkup of your IUD yearly. Every IUD has several very thin threads attached to it. These threads are trimmed very short after insertion, and will hang inside your body (and can't be seen from the outside). You can wear tampons and other intrauterine products (like menstrual cups and

diaphragms) if you have an IUD. IUDs are most likely to accidentally fall out during the first few months after insertion – you can check to make sure you IUD is still in place by gently feeling for the strings (but do not pull them). You should always double-check to see if your IUD fell out after using intrauterine products or having sex. **Never** attempt to re-insert an IUD that has fallen out. To ensure that no damage is done to your reproductive tract, a trained healthcare provider is needed to remove and replace an IUD. Liletta™ and Skyla™ should not be left in place for longer than 3 years, and Mirena™ should not be left in place for longer than 5 years. Paragard™ should not be left in place for longer than 10 years.

The active ingredient levonorgestrel is a synthetic version of the hormone progesterone. Hormone-containing IUDs prevent pregnancy by changing the lining of the uterus to prevent implantation (see, “Z is for Zygote to Fetus: What is Pregnancy?”), thickens cervical mucus to prevent travel of sperm and egg through the reproductive tract, damages unfertilized and fertilized eggs, damages sperm cells, and prevents the endometrium (uterine lining) from changing into a more suitable tissue for egg implantation.

Paragard™ is a non-hormone containing copper IUD. The exact ways that the copper in Paragard™ prevents pregnancy is not entirely understood. Some ways in which Paragard™ works may include prevention of egg fertilization and development, prevention of egg implantation, and prevention of sperm and egg movement through the reproductive tract. Despite low rates of use in the U.S. due to cost and limited access to trained healthcare providers, IUDs are some of the most effective types of birth control. IUDs are more than 99% effective. All females should consider using an IUD as a means of contraception. If a female does want to become pregnant, return of fertility occurs within 30 days of removing an IUD.

Hormone-containing IUDs decrease menstrual flow, and 20% of users stop having a period within 1 year, and 60% within 5 years. Some users of hormone-containing IUDs will notice spotting between periods, especially during the first 6 months. Spotting will go away or decrease with time. Paragard™ increases menstrual blood flow up to 35%. IUDs should not be inserted into females who have have Pelvic Inflammatory Disease (PID, see “S is for STIs”), undiagnosed vaginal bleeding, or physical abnormalities of the reproductive tract. IUDs have a very low risk of causing PID – between 1-2.5% of users develop PID. There is a risk of bacterial vaginal infections; this risk is highest during the first 20 days after insertion of an IUD.

Subdermal Implant (Nexplanon™) ¹⁻²

A subdermal implant is a small, thin piece of material that is surgically inserted under the skin of the upper arm, and is used for female contraception. Nexplanon™ must be surgically implanted and removed by a trained healthcare provider. Implants do not come from the pharmacy – your healthcare provider will order you one. Currently, the only subdermal implant available is Nexplanon™ (formerly called Implanon™), and is 4 cm (less than 2 inches) long. There is only 1 size of implant available. Once implanted, Nexplanon™ can be left in place for 3 years. When it is time for a new implant, the old implant can be replaced with a new implant during the same appointment. You should **never** attempt to remove your implant.

In females who have not used hormonal contraception before, Nexplanon™ can be implanted during days 1-5 of their menstrual cycle. If Nexplanon™ is inserted at another point in the menstrual cycle, back-up contraception is needed for 7 days. For females who are currently using oral contraceptives, Nexplanon™ can be inserted within 7 days of stopping oral contraceptives. Females using progestin-only oral contraceptives, Nuvaring™, or progestin-only IUDs can start Nexplanon™ immediately after stopping use. For females using injectable

contraception, Nexplanon™ can be inserted on the day that the next Depo-Provera™ or Depo-SubQ™ injection is due.

The active ingredient in Nexplanon™ is etonogestrel, a synthetic type of progesterone, a hormone. Nexplanon™ prevents pregnancy by preventing ovulation, thickening of cervical mucus to prevent travel of sperm and egg through the reproductive tract, and stops the endometrium (uterine lining) from changing into a more suitable tissue for egg implantation. Nexplanon™ is one of the most effective types of birth control. Nexplanon™ is than 99% effective. Nexplanon™ is less effective in overweight and obese females who weigh more than 130% of their ideal body weight, and decreases with time. Ask your doctor or pharmacist if you are at risk of decreased effectiveness of Nexplanon™. If a female does want to become pregnant, return of fertility occurs within 30 days of removing Nexplanon™. Pregnancies have been reported after 7 days of implant removal.

About 11% of females stop using Nexplanon™ because of an irregular menstrual flow – about 22% of females will stop having a monthly period, but 34% may still have spotting. Another 7% have more frequent bleeding.

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CHAPTER 10: J IS FOR JUST IN CASE: BACK-UP

CONTRACEPTION & ANTIBIOTIC USE

When Should Back-up Contraception Be Used? ¹⁻⁷

Until recent years, doctors have recommended that female's taking oral hormonal contraceptives use some form of "back-up" contraception when taking antibiotics. These forms of back-up contraception are usually over-the-counter products like male and female condoms, or barrier devices like diaphragms. After lots of new research, many doctors have changed their minds about needing back-up contraceptives while using antibiotics. Any females using oral contraceptives who are also using antibiotics should always talk with their own healthcare provider about whether backup contraception is needed during and shortly after antibiotic use.

There are several theories of how antibiotics can lead to unintended pregnancy. The most well-known theory is based on how hormonal contraceptives stay in the body over time. Once the estrogen in oral contraceptives is processed by the liver, it can no longer provide contraceptive protection. Naturally occurring bacteria in the intestines are able to reverse this process, allowing active estrogen to continue circulating through the body. This process is repeated many times. Antibiotics, especially broad-spectrum ones, can accidentally kill important bacteria in the gut. Without these bacteria to recycle estrogen, female's using oral contraceptives may have contraceptive failure.

These theories are backed by very little evidence, which most often comes from individual case reports or adverse event reports, very small studies with few patients, and studies involving long-term use of antibiotics. These studies are often poorly designed, and do not have a control group to compare their results to. Drug level studies on commonly used antibiotics do not back the theory that antibiotics significantly affect oral contraceptive protection. Many

studies do show a slight increase in contraceptive failure risk – however, this risk is still within the 1-3% failure rate expected with any user of oral contraceptives.

An U.S. study published in the scientific journal *Contraception* in 2011 analyzed 1,330 combined oral contraceptive failure cases. These cases occurred in a total of 43,662 females receiving care from the Slone Epidemiology Center (17,721 females), and National Birth Defects Prevention Study (25,941 females), over a period of several years. Of these cases, 4% of females were using antibiotics during their estimated time of conception. After reviewing the evidence, researchers in this study could not find a link between current use of antibiotics with oral contraceptives and contraceptive failures resulting in pregnancy.

In 2005, the World Health Organization (WHO) stated that the use of back-up contraception during antibiotic use in oral contraceptive users is not necessary. Their latest publication, *Medical Eligibility Criteria (MEC) for Contraceptive Use (5th Edition)*, released in August of 2015, continues to state that most antibiotics do not affect the contraceptive effectiveness of combination oral contraceptives, progestin-only contraceptives, or contraceptive vaginal rings and IUDs. The Centers for Disease Control and Prevention (CDC) also backed the WHO's recommendations in their publication, "*U.S. Selected Practice Recommendations for Contraceptive Use*".

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CHAPTER 11: K IS FOR KISSING DISEASE:

MONONUCLEOSIS

What is Mononucleosis? ¹⁻³

Epstein-Barr virus (EBV), a member of the herpes virus family, is one of the most common causes of infectious mononucleosis, aka “mono” or “kissing disease”. Mono is very common among teens and young adults, especially college students. More than 90% of adults have been infected with EBV. But, not everyone who has been infected with EBV will get sick.

Approximately 25% of teens and young adults who become infected with EBV will develop mono. Mono is very rare in adults and the elderly because their immune systems have developed antibodies (immune system defenders) against this virus, which protects them. EBV is very contagious, and is spread most commonly through bodily fluids, especially saliva. EBV can be spread through contact with blood and semen during sex. Symptoms of mono include extreme tiredness, fever, head and body aches, sore throat, rash, and swollen lymph nodes (part of your immune system, which fights infections) and spleen. Your doctor would have to examine you to see if these symptoms are present. But, the symptoms of mono don't usually start appearing until about 4-6 weeks after you are infected. The first symptoms, (fever, tiredness, body aches), are usually slow to appear, and last for 1-2 weeks. Most people get better in 2-4 weeks. As many as 10% of people have continued tiredness weeks or months later.

At this time, there is no vaccine to protect against mono, or the most common cause of mono, the Epstein-Barr virus. Do not kiss, have sex, share drinks or food, or share personal items (like toothbrushes), with anyone that has mono, or anyone who has been in contact with someone who might have or has mono. Since mono is most often caused by a virus, antibiotics will not treat it. Treating symptoms is the only strategy for helping the body fight mono. Staying

hydrated, taking over-the-counter pain and fever medications, and getting lots of rest are important ways to help your body recover from mono.

Because EBV can cause your spleen to swell, it is very important to avoid extreme physical activities while sick and for several weeks after. Physical activity can cause the swollen spleen to tear, which must be treated immediately with emergency surgery.

Resources

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CHAPTER 12: L IS FOR LAW REVIEW

Age of Consent ¹⁻²

In the United States, there are laws that determine the age at which someone can willingly consent to sexual intercourse or any other sexual acts. Every state is allowed to define this age, called the **age of consent**. Only 12 states have a single age of consent. The majority of states have modified their age of consent law. These changes include laws on age difference(s) between victim and accused, and minimum age(s) of the victim and accused. In order to understand these laws, you must first understand the terms used in these laws. *Age of Consent* is the minimum age at which a person is considered to be able to consent to sexual acts. Some states make an exception to the **Age of Consent** law if the accused and victim are the same or similar ages. This is an example of an **Age-Gap** Provision law. The **Minimum Age of Defendant (Accused)** law is an age threshold, below which individuals cannot be prosecuted for engaging in sexual intercourse. The **Minimum Age Requirement** is the age below which a person cannot legally consent to sexual intercourse, no matter the ages of the victim and accused. Sometimes, it's unclear at the time how old someone is, or if they are lying about their age. The **Mistake of Age Defense** can be used by the accused if they had a legitimate reason to believe that the victim was over the age of consent. An example of this would be if the victim had used a fake ID to get into a bar or club.

The following link leads to a table on the Age of Consent laws in the U.S.:

<https://www.age-of-consent.info/#states>

Affordable Care Act ³⁻⁴

The Patient Protection and Affordable Care Act (Pub. L. 111–148) became active on March 23rd, 2010. The Health Care and Education Reconciliation Act of 2010 (Pub. L. 111–152)

became active on March 30th, 2010. These acts are known together as the Affordable Care Act (ACA, or Obamacare). The ACA reorganizes and adds to the Public Health Service Act that deals with health insurance plans, coverages, and companies. The ACA also affects the Employee Retirement Income Security Act of 1974 (ERISA), and the Internal Revenue Code. Through these acts, the ACA requires that, **“non-grandfathered group health plans and health insurance issuers offering non-grandfathered group or individual health insurance coverage provide coverage of certain specified preventive services without cost sharing”**. Most importantly, the term “preventative services” includes routine immunizations recommended by the Centers for Disease Control (CDC), preventative care and screenings, and all Food and Drug Administration (FDA)-approved contraceptives when prescribed by a healthcare provider. The complete list of services that are required to be covered by insurance companies can be found at:

<https://www.healthcare.gov/preventive-care-benefits>

There are exceptions to these new laws. The Supreme Court ruled that, under the Religious Freedom Restoration Act of 1993 (RFRA), requirements to provide contraceptive coverage could not be applied to, “certain closely held for-profit entities that had a religious objection to providing coverage for some or all the FDA-approved contraceptive methods”. The current argument is which companies this exception applies to, and what these terms actually mean. The best way to find out what product(s) and services are covered by your insurance company is to ask your insurance company directly. Neither your doctor’s office nor your pharmacy will know what is covered by your insurance; it’s your job to know your benefits. Many companies have online resources, and all have a customer service phone number (usually on the back of your insurance card) that you can call. For medication coverage, ask about a

formulary list – this is a list of all medications covered by your insurance company. Your insurance company can also give you prices (copays) for these products. Certain medications, like Depo-Provera™ (see, “D is for Depo-Provera™ & Depo-SubQ™), and products like diaphragms (see, “M is for Miscellaneous Prescription Contraceptive Products”) require a doctor’s office visit; be sure to ask about the cost of these visits.

Resources

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CHAPTER 13: M IS FOR MISCELLANIOUS CONTRACEPTIVE PRODUCTS

Barrier Devices: Diaphragms & Cervical Caps ¹⁻⁵

Diaphragms and cervical caps are reusable, non-hormone containing contraceptive devices for females. Diaphragms and cervical caps are called “barrier devices” because they block sperm from entering the cervix and fallopian tubes. Diaphragms are made from rubber, and are bowl-shaped to fit across the opening of the cervix. Cervical caps are made from silicone, and are shaped like a thimble or cup, to fit directly over the cervix. Both diaphragms and cervical caps come in different sizes, but cervical caps are generally much smaller. Since these products must be fitted by a trained healthcare provider, they are only available with a prescription. However, they are inserted and removed by the female patient.

When properly taken care of, diaphragms and cervical caps can last through about 2 years of use. Diaphragms and cervical caps cost about \$75 or less, as well as any copays for your appointment for fitting. Diaphragms and cervical caps are very cost-effective contraceptive products. To get the most use out of your diaphragm or cervical cap, it's very important to properly clean and store it after use. After removal, wash your device with mild soap and warm water, and allow it to air dry. Do not apply any powders, fragrances, or oil-based lubricants to your device – these products can cause vaginal irritation, infection, and damage to your device.

Always be sure to check your device for any holes, tears, thin spots or cracks. You can fill your device with water to check for any leaks, or hold it up to a light-source to check for thin spots. You should expect your device to change color over time– this does not mean your device is unusable or ruined. Diaphragms and cervical caps can be difficult at first to use, but can become easier with practice. Most healthcare providers will teach you how to use your device,

and will coach you through using it for the first time in the office or clinic. If you're having trouble using your diaphragm, ask your healthcare provider about a special diaphragm inserter tool to use with your device.

Any female who desires non-hormonal contraception and who has been properly fitted for a diaphragm or cervical cap can use one. They can be inserted up to 6 hours prior to sex, and are usually not felt by your partner(s). These devices should never be shared with another person, or used during menses. Heavy thrusting, larger penis size, and deeply-penetrating sex positions can push these devices out of place, and should not be used in these situations. **Both products must have a spermicide added before insertion**, and must stay in place for 6 hours after the last time a female has vaginal sex. Ask your healthcare provider about what kind of spermicide you should use with your specific device. Diaphragms should not be worn for longer than 24 hours. Cervical caps should not be worn for longer than 48 hours. If you have sex more than once while the **diaphragm** is still in, you should have your partner wear a condom for additional protection. **Cervical caps** can be left in place for multiple acts of sex without using more spermicide and without having your partner wear a condom. Neither diaphragms nor cervical caps protect against STIs. Therefore, a condom should **also** be used to protect against STIs. Many spermicidal products contain nonoxynol-9. This product can actually irritate reproductive tissues and increase you and your partner(s) risk for spreading HIV and other sexually-transmitted infections (see, "O is for Over-The-Counter Contraceptives").

The effectiveness of diaphragms and cervical caps largely depends on how well they are used. When diaphragms are correctly, approximately 6% of females will become pregnant each year. When cervical caps are used correctly, approximately 14% of females who have never given birth vaginally, and 29% of females who have given birth vaginally, will become pregnant

each year. This is because after having a vaginal birth, your cervix will stretch and become more flexible, which may cause the cervical cap to fit less tightly. Overall, these devices have a failure rate of about 16%. Anyone who uses these products should pre-purchase emergency contraception (see, “E is for Emergency Contraceptive Products” for more information). You can make these devices more effective by making sure they are inserted properly (practice makes perfect), using the right kind of spermicidal products every time you use your device, and having your partner wear a condom, or pull out before ejaculating.

Diaphragms and cervical caps have less side effects than hormone-containing contraceptives. However, they are not free of side effects. Leaving these products in longer than recommended can cause infections, including Toxic Shock Syndrome (see, “T is for Tampons & Toxic Shock Syndrome” for more information). Other side effects may include vaginal irritation, either due to insertion/removal, or spermicide use, mild pain or discomfort, and more frequent yeast infections (see, “Y is for Yeast Infections”).

Hormonal Contraceptive Patches ^{1-2, 6}

Currently, there is only 1 strength of hormone-containing contraceptive patches on the market. One company has named their product Ortho Evra™, and another company has named theirs Xulane™. Both of these products contain the same active ingredients in the same amounts, ethinyl estradiol and norelgestromin. These transdermal patches are applied once weekly to the skin, with a patch-free week to allow menses to occur. Any female who desires hormonal contraception but struggles to remember to take a daily pill may be a good candidate for the patch.

These patches are meant for one-use only, and should never be shared with another person or reused. You should only have 1 patch on your body at any time, except during your

period (no patch at all). The patch should be applied to a clean (no makeup, lotions, fragrances, deodorant, etc), dry, relatively hairless place such as the upper arm, lower abdomen, upper torso (not the breasts), or the butt. Patches should not be placed over any cuts or irritated skin. Patch changes should occur on the same day every week (“patch-change day”). Your new patch should be placed on a different location from your last patch. Users of the patch apply 1 new patch to their skin every week for 3 weeks. Each old patch should be removed and replaced with a fresh patch on the same day, “patch change day”. On the 4th patch change day, the old patch is removed and no new patch is applied – this is the week for menstruation to begin. After 7 days, a new patch is put on to end menses. If there are more than 7 patch-free days, you may not be protected against pregnancy. Any females who go longer than 7 days without a patch should put on a new patch immediately, and use back-up contraception for the next 7 days. If a patch comes off accidentally, it can be put back on, as long as nothing else is stuck to the patch (like hair, lint, or dirt), it has not folded in on itself, and the patch is still sticky. If a patch is off your skin for more than 24 hours, throw away the old patch and start a new 4-week cycle of patches. And, back-up contraception should be used for the next 7 days. Do not try to force patches to stay attached to your skin with tape or wraps – just throw away the old patch and begin with a fresh patch. Do not attempt to cut, tear, or alter the patch in any way – this will make it less effective.

There are 2 ways to start using contraceptive patches – a “Sunday Start” and a “First Day Start”. For a “Sunday Start”, apply your first patch on the first Sunday after your period starts. For example, if your period starts on a Friday, apply your first patch 2 days later, on Sunday. This method means that your “patch change day” will be on Sundays. If you choose to start your patches on a Sunday, you’ll need back-up contraception for the next 7 days. For a “First Day Start”, apply your first patch on the first day of your menstrual cycle. For example, if your period

starts on a Friday, apply your first patch that same day (Friday). This method means that your “patch change day” will be on the day you first started your menstrual cycle. If you choose to start your patches on the first day of your menstrual cycle, you won't need back-up contraception. If you want to switch your “patch change day” to another day of the week, complete your first 3 weeks of patches as usual. During the 4th week, apply the next patch **earlier** than usual. This day will become your new patch day. Do not go longer than 7 days without having a patch on.

There are 2 active ingredients in contraceptive patches - norelgestromin and ethinyl estradiol. Together, these products work in several ways to protect against pregnancy. These ingredients inhibit ovulation, prevent travel of sperm and egg through the reproductive tract by thickening cervical mucus, and prevent the endometrium (uterine lining) from changing into a more suitable tissue for egg implantation.

Drug comparison trials between oral hormonal contraceptives and patches have shown patches to be just as effective as oral hormonal contraceptives in patients who weigh less than 90kg (198 pounds). In females who weigh more than 198 pounds, contraceptive patches may be less effective. During clinical trials for contraceptive patches, 1/3 of the pregnancies reported while using the patch happened to females who weighed more than 198 pounds.

Contraceptive patches expose females to 60% more estrogen than oral hormonal contraceptives. Because of this, many patients stop using contraceptive patches due to nausea and vomiting, breast tenderness, headache, and irregular menses and spotting. Females who use contraceptive patches have double the risk of developing serious blood clots, especially in the larger veins of the legs. These blood clots can lead to stroke. Ask your healthcare provider if you

have other risk factors for developing blood clots. Other side effects may include skin irritation around the patch application site.

Resources

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CHAPTER 14: N IS FOR NUVARING™

What is Nuvaring™? 1-2

Nuvaring™ is a small, flexible, hormone-containing ring that is inserted into the vagina to prevent pregnancy. This device contains both an estrogen, ethinyl estradiol, and a progestin, etonogestrel. This device is not made with latex. Nuvaring™ is for any female who wants hormonal contraception without the worry of taking a daily pill. Nuvaring™ is also an option for females who have difficulty making doctor appointments for injections (see, “D is for Depo-Provera™ & Depo-SubQ™”), or women who have skin reactions to patches or other contraceptive devices like condoms and diaphragms (see, “M is for Miscellaneous Prescription Products”). Nuvaring™ is available by prescription only, but can be inserted and replaced at home, much like a tampon. A new Nuvaring™ is placed inside the vagina once every 3 weeks (21 days). It is left in place for 3 weeks, and then removed for 1 week to allow for a monthly menses. A new Nuvaring™ is then inserted after 7 days of menses. When used correctly, Nuvaring™ is 98% effective at preventing pregnancy.

How to Use Nuvaring™ 1-2

At the pharmacy, Nuvaring™ is kept in the refrigerator. An unopened Nuvaring™ can be safely stored at room temperature for 4 months. Instructions for inserting and removing Nuvaring™ can be found at www.Nuvaring.com/consumer/how_to_use/. If the Nuvaring™ feels uncomfortable, you may not have pushed the ring into your vagina far enough. You can use your finger to gently push the Nuvaring™ further into your vagina. There is no danger of Nuvaring™ being pushed too far up or getting lost within your body. If you have any pain or discomfort while trying to insert your Nuvaring™, or if you cannot find Nuvaring™ in your vagina, contact your health care provider right away.

Nuvaring™ can fall out after tampon removal, during sex, or with straining during a bowel movement. If it has been less than 3 hours since the Nuvaring™ fell out, you can rinse it with cool or lukewarm water and reinsert it. If it has been longer than 3 hours since Nuvaring™ fell out, contact your healthcare provider or pharmacist. Cases of Nuvaring™ users developing Toxic Shock Syndrome (TSS) have been reported. TSS has been associated with tampons and certain barrier contraceptives (see, “T is for Tampons & Toxic Shock Syndrome”). In some cases the Nuvaring™ users were also using tampons. However, a cause-effect relationship between the use of Nuvaring™ and TSS has not been found.

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CHAPTER 15: O IS FOR OVER-THE-COUNTER

CONTRACEPTIVES

Spermicides ¹⁻⁴

Spermicides are chemicals that destroy sperm cells and help prevent pregnancy.

Spermicides are usually inserted directly into the vagina. Spermicidal products are available as creams, gels, foams, films, vaginal tablets (a unit of solid product inserted into the vagina), and sponges. Spermicides can be purchased at many pharmacies, grocery stores, clinics, and online. Some products, like diaphragms and cervical caps, should be used with a spermicidal gel or cream (see, “M is for Miscellaneous Prescription Products”). Some condoms are pre-lubricated with spermicides. Anyone who desires non-hormonal contraception can use a spermicidal product. Many spermicides can be used in conjunction with another form of hormonal or barrier contraception to increase protection.

One of the most common spermicides is nonoxynol-9. Some partners may be allergic to nonoxynol-9 and should not use these products. Signs of an allergic reaction include itching, rash, burning, or irritation. If you or your partner(s) have an allergic reaction, remove the spermicide and contact a healthcare provider. Spermicides do not protect against STIs. When nonoxynol-9 containing spermicidal products are used often (more than twice a day), irritation can occur, leading to an increased risk of spreading or getting HIV (see, “S is for Sexually Transmitted Infections”). Neither the World Health Organization (WHO) nor the Centers for Disease Control and Prevention (CDC) recommend using nonoxynol-9 spermicides for STI protection. Spermicides should not be used as lubricant during anal sex; irritation from the product can increase your risk of getting or spreading STIs. Spermicides can also increase the

risk of getting a Urinary Tract Infection (UTI) or yeast infection (see, “U is for Urinary Tract Infections”, and “Y is for Yeast Infections”).

The correct way to use spermicides depends on the type of product you purchase – **read all directions carefully**. Most products are inserted into the vagina with your fingers or an applicator, about 10-30 minutes before having sex. You will need to insert more spermicide each time you have vaginal sex. Do not attempt to clean out any remaining spermicide from your vagina. If you choose to douche, you should wait at least 6-8 hours after sex.

If spermicides are always used according to the included instructions, about 15-18% of females will become pregnant each year. If not always used correctly, about 28-29% of females will become pregnant each year. To increase the effectiveness of spermicides, you should use another form of barrier or hormonal contraception, have you or your partner(s) wear a condom, pull out before ejaculating, and make sure the spermicide is inserted properly (practice makes perfect).

Vaginal Sponge⁴⁻⁸

Vaginal sponges are a spermicidal, non-hormonal contraceptive product for females. Any female who desires non-hormonal contraception can use a vaginal sponge. Vaginal sponges have spermicide already in them, called nonoxynol-9. Nonoxynol-9 both paralyzes and kills sperm. Vaginal sponges can also block sperm from entering the reproductive tract by creating a barrier. Vaginal sponges are very soft, and you and your partner(s) usually cannot feel them once inserted. Vaginal sponges can be difficult to use at first, but gets easier with practice. Vaginal sponges are only available in 1 size. These products should never be shared with another person, and should not be reused. Vaginal sponges should not be used during menses. Heavy thrusting, larger penis size, and deeply-penetrating sex positions can push these devices out of place,

making them less effective at preventing pregnancy. Vaginal sponges are not as popular as other OTC contraceptives, but can be found in pharmacies, health clinics, and online. Sponges usually cost between \$9-15 for a package of 3.

You can insert a vaginal sponge up to 6 hours before having sex. Vaginal sponges must stay in place for at least 6 hours after the last time a female has vaginal sex. Vaginal sponges should not be worn for longer than 24-30 hours. Vaginal sponges can be left in place for multiple sex acts without adding any other spermicidal products or having your partner wear a condom. Vaginal sponges will remain just as effective no matter how many times you and your partner have sex over the next 24-30 hours.

The effectiveness of vaginal sponges largely depends on how well they are used. Approximately 12% of females using vaginal sponges will become pregnant each year. Females who have given birth vaginally may have a higher risk of pregnancy. This is because after having a vaginal birth, your cervix will stretch and become more flexible, which may cause the cervical sponge to not fit over the cervix as well. Anyone who uses a vaginal sponge should pre-purchase emergency contraception (see, "E is for Emergency Contraceptive Products"). You can make vaginal sponges more effective by making sure they are inserted properly (practice makes perfect), and having your partner wear a condom, or pull out before ejaculating. Vaginal sponges do not protect against STIs. In fact, spermicidal products containing nonoxynol-9 may actually increase your risk of getting or spreading HIV due to vaginal irritation from the spermicide (see, "S is for Sexually Transmitted Infections"). Neither the World Health Organization (WHO) nor the Centers for Disease Control and Prevention (CDC) recommend using nonoxynol-9 spermicides for STI protection.

Vaginal sponges are not free from side effects. Some partners may be allergic to the spermicide in vaginal sponges. Signs of an allergic reaction include itching, rash, burning, or irritation. If you or your partner(s) have an allergic reaction, remove the sponge and contact a healthcare provider. Leaving a vaginal sponge in longer than recommended can cause infections, including Toxic Shock Syndrome (see, “T is for Tampons & Toxic Shock Syndrome”). Other side effects may include skin irritation, either due to insertion and removal of the sponge, or from spermicide use, mild pain or discomfort for one or both partner(s), and more frequent yeast infections (see, “Y is for Yeast Infections”).

Dental Dam⁹⁻¹¹

Dental dams are a thin sheet of material that is stretched across either the vagina or anus of your partner to protect against STIs during anilingus (anus-to-mouth sex), or cunnilingus (vagina-to-mouth sex). Originally, dental dams were used by dentists to protect the mouth and throat of their patient during a dental exam, hence the name “dental dam”. Anyone performing anilingus or cunnilingus should use a dental dam for protection against STIs. When used correctly, dental dams are a highly effective way of protecting against STIs. However, dental dams may not cover the entire vagina, anus, or areas with open sores or infected fluids, and should be used with care in these situations.

Dental dams are available online, clinics like Planned Parenthood, and some specialty stores and pharmacies. If you can't find dental dams, you can easily make them or substitute with other products. To make your own dental dam, you can:

1. Cut a latex or polyurethane condom down one side, from rim to tip, and open into a flat, square sheet
2. Cut a latex glove along one side, remove the fingers, and open into a flat, square sheet

3. Use a sheet of clear plastic food wrap – this product **may or may not protect against viral STIs**
4. Use natural latex sheets, which can be found online

Before using a dental dam, be sure check the dam for any tears, weak spots, or holes. You can do this by holding it up to a light, or by holding the corners and filling it with water to check for leaks. Some dental dams have a powder on them (usually cornstarch). Be sure to rinse this powder off before using it – if the powder is left on the dental dam, it can cause genital infections. If you and your partner(s) choose to use something other than a dental dam, be sure to rinse any powder or residue off it (latex gloves usually have powder on the inside of them). You can use a flavored, water-based lubricant on either side of the dental dam to help cover-up the taste of latex or polyurethane, and to help the dental dam stay in place on your partner.

Dental dams should not be used in place of male or female condoms during vaginal (penis-to-vagina) sex, or in place of male condoms during anal (penis-to-anus sex) or fellatio (mouth-to-penis sex). Dental dams do not protect against pregnancy. Dental dams should never be reused between partner(s), and a new dental dam should be used for each new sexual activity.

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CHAPTER 16: P IS FOR PREMENSTRUAL DISORDERS

What is Premenstrual Syndrome? ¹⁻³

Premenstrual Syndrome (PMS) is a repeating pattern of physical, emotional, and behavioral changes that occur just before and during a female's menses (period). These mild-moderate symptoms may interfere with school, work, and social activities. Approximately 75% of menstruating females will experience symptoms of PMS at some point in their lives. PMS symptoms usually first start when females are in their teens and early twenties. Symptoms of PMS quickly improve after menstrual bleeding stops, and are completely absent for the beginning of the next menstrual cycle. Symptoms of PMS include at least 1 mood or physical symptom during the 5 days prior to the start of menses, including irritability, quick emotional changes, depression, anger, anxiety, trouble concentrating, breast tenderness, water retention (bloating), backaches, headache, upset stomach, low energy, food cravings and appetite changes.

What is Premenstrual Dysphoric Disorder? ¹⁻³

Premenstrual Dysphoric Disorder (PMDD) is a more extreme version of PMS, when symptoms are so severe they interfere with school, work, social activities, and even relationships. PMDD is not common, and only affects about 3-8% of females. To be diagnosed with PMDD, a healthcare worker must confirm that these symptoms are not due to another physical or mental illness or condition. Females with PMDD have at least 5 or more symptoms, including noticeable depression, anxiety, anger, irritability, or quick emotional changes, feeling overwhelmed or "stressed out", tiredness and low energy, trouble concentrating, food cravings and appetite changes, trouble sleeping, breast tenderness, and bloating.

PMS and PMDD are different from the usual symptoms of menses because these disorders are more severe, and can have a bigger impact on day-to-day living. The exact cause of

PMS and PMDD is not clear. Increased hormone levels shortly before and during menses may be linked to symptoms of severe cramping. But, there are many other changes in bodily chemicals that likely cause symptoms. Studies of PMS and PMDD across different cultures suggests that physical symptoms are similar from country to country, but mood symptoms are typically only seen in western cultures (such as the U.S.).

There are many ways to manage PMS and PMDD symptoms, both with and without prescription medications. Any new treatments for symptoms should be monitored for effectiveness for at least 2 months. One way of doing this is with a symptom diary. A non-prescription option for managing PMS and PMDD bloating is taking a diuretic (“water pill”), like pamabrom or caffeine, which make you pee and can help with water retention and bloating. Limiting white and brown sugar and salt in your diet can also help with bloating. Reducing your caffeine and alcohol use can help improve mood. Exercise, stress management, meditation and relaxation can also help with physical and emotional symptoms. Tylenol™ (acetaminophen) or NSAIDS like Aleve™ (naproxen) and Motrin™ (ibuprofen) can help with back pain. These ingredients can be found in products like Midol™. Supplements like Vitamin B6, calcium carbonate, and magnesium may also help with PMS and PMDD symptoms. Before starting any over-the-counter medications, always talk to your pharmacist first. Be sure to mention any medical conditions you may have, and any other medications you are taking.

If your symptoms continue to be bothersome after 2 months of treatment, you may need prescription medications to manage symptoms. Many different types of medications are used, such as antidepressants (which also help with anxiety) and oral contraceptives.

What is Dysmenorrhea? ¹⁻³

Dysmenorrhea, or “cramps”, is a distinct pelvic pain that occurs just prior to and during menses. This continuous, dull, aching pain may spread to the low back, upper thighs, and abdomen, and may “pulse” or throb unexpectedly. There are 2 types of dysmenorrhea, primary and secondary.

Primary dysmenorrhea happens as a result of shedding the uterine lining during menses (see, “F is for Female Reproductive Cycle & Menses”). Primary dysmenorrhea may also cause nausea, vomiting, fatigue, dizziness, diarrhea, headache, and mood changes. Symptoms of primary dysmenorrhea usually last for a few days, and only occur during menses. Pain that is due to abnormal pelvic anatomy is called secondary dysmenorrhea. Pain and cramping even happens on days when menses is not occurring. Females with secondary dysmenorrhea may also have abnormally heavy menstrual flows or irregular cycles. Symptoms usually don't begin until several years after menstruation has started (in females who are 25 years or older). Like PMS and PMDD, the exact cause of dysmenorrhea is not clear. Increased hormone levels shortly before and during menses, including progesterone, may be linked to symptoms of severe cramping. However, there are many other changes in bodily chemicals that may contribute to symptoms.

Anywhere from 16-90% of females report symptoms of dysmenorrhea, with approximately 10% reporting secondary dysmenorrhea. Risk factors for developing dysmenorrhea include being younger, having a heavy menses flow, nulliparity (never had a pregnancy), early onset of puberty, and cigarette smoking. Specific risk factors for secondary

dysmenorrhea include endometriosis, Pelvic Inflammatory Disease (PID), ovarian cysts, uterine tumors or fibroids, Irritable Bowel Disease (IBD), or Intrauterine Device (IUD) use.

There are many ways to treat dysmenorrhea, both with and without prescription medications. Choosing the right treatment will depend on a number of factors, including desire for contraception, level of sexual activity, side effects, and cost. Non-prescription options for treating dysmenorrhea include applying heat to sore areas with a hot-water bottle, heat patch, or warm towel, warm baths, plenty of rest and sleep, avoiding cigarettes and second-hand smoke (makes cramps worse), exercise (as tolerated), and acupuncture. Over-the-counter pain relievers work best when they are taken on a routine basis during the menstrual cycle, instead of only as needed. Tylenol™ (acetaminophen) will only help with pain relief, but Aleve™ (naproxen) and Motrin™ (ibuprofen) can help with pain and sore muscles. These ingredients can be found in products like Midol™.

If non-prescription options do not work after 2-3 months of use, prescription medication may be needed. Certain pain relievers, like ibuprofen and naproxen, are available with a prescription in stronger strengths than over-the-counter products. Other options include oral contraceptives, Depo-Provera™ (see, “D is for Depo-Provera™ & Depo-SubQ™”), and Mirena™ (see, “I is for Intrauterine & Implantable Devices”). These products decrease menstrual flow so much that many females have no regular period after 6-12 months of use.

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CHAPTER 17: Q IS FOR QUESTIONS & RESOURCES

See individual chapters for reference information.

Chapter 1: A is for Abortion

Q: Why isn't "A for Abstinence"? ⁸

A: The Oxford Dictionary definition of the term "contraception" is as follows:

"The deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. The major forms of artificial contraception are barrier methods, of which the most common is the condom; the contraceptive pill, which contains synthetic sex hormones that prevent ovulation in the female; intrauterine devices, such as the coil, which prevent the fertilized ovum from implanting in the uterus; and male or female sterilization"

Abstinence is not a contraceptive because the term contraception involves the prevention of pregnancy **as a result of sexual intercourse**. Because abstinence is the **complete absence** of sexual intercourse, there is no risk of pregnancy. Therefore, abstinence is not a type of contraception.

Q: How can I get more information on abortion? ²

A: You can contact the National Abortion Federation (NAF) at 1-800-722-9100 (toll-free), Weekdays 8am-9pm, and Saturdays 9am-5pm. To find a provider, call the NAF's Referral Line at 1-877-257-0012.

Q: How do I know if a clinic is trustworthy? ²

A: The best way to find a healthcare provider who performs abortions is to contact the National Abortion Federation. You can find a healthcare provider through their online provider finder: <http://prochoice.org/think-youre-pregnant/find-a-provider/>

Q: What happens after my abortion? ^{5,6}

A: After your abortion, clinic staff will escort you to a recovery area. From here, you'll have a chance to rest before you are healthy enough to return home on your own. Recovery time at the clinic usually lasts about an hour. You'll also get a set of after-care instructions and a list of phone numbers for any questions or concerns you may have over the next few days. Some clinics may have you schedule a follow-up appointment in 2-4 weeks.

Q: When can I expect my period to restart? ⁵⁻⁶

A: An abortion will signal the beginning of a new menstrual cycle. Your period should restart 4-8 weeks after your abortion.

Q: When can I start having sex again? ⁵⁻⁶

A: Most healthcare providers recommend that you do not insert anything into your vagina (vaginal sex, tampons, toys) for at least 7 days after your procedure. Always ask your provider what their recommendation is.

Q: Can I have unprotected sex after getting an abortion? ⁵⁻⁶

A: You should not have unprotected sex after any abortion procedures. You could become pregnant again very soon after having an abortion. Talk with your healthcare provider about the contraceptive options that are best for you.

Q: What happens during a vacuum aspiration? ⁶

A: First, a healthcare provider will examine your pelvis and uterus. Next, you will receive some pain medication and possibly a sedative (which causes relaxation without sleepiness), as well as numbing medication for your cervix, and antibiotics for infection prevention. Then, your cervix will need to be stretched, or dilated. This can be done in a number of ways – using medications or a series of dilators (widening instruments that are inserted into the cervix). Once

your cervix is stretched, a suction tube is inserted through the cervix and into your uterus. The suction device will gently remove the fetal tissue. To check for any remaining tissue, a curette may be used. A curette is a small surgical instrument which gently scrapes the inside of the uterus. Procedures that involve using a curette are sometimes referred to as “D&C” or dilation and curettage abortions.

Q: How will I feel afterwards (emotionally)? ⁵⁻⁶

A: It's common to experience many different emotions before, during, and after your abortion. In most cases, patients feel relieved after having an abortion. But, it's not uncommon to have feelings of regret, guilt, anger, or sadness. Females with a history of emotional or mental conditions may be more likely to have more serious emotional problems after having an abortion. Sometimes knowing that your family, friends, or a partner support your decision can affect how you feel. Clinic staff can always help you find someone to talk with.

Chapter 2: B is for Birth Control Pills

Q: Why are there so many generic and brand names for oral contraceptives? Are they really the same? ¹

A: There are dozens of manufacturers of oral contraceptive products. And, to make it even more confusing, most every generic version of a brand-name oral contraceptive is given a different name; they aren't referred to by their active ingredient names (*Tylenol* is the brand-name of acetaminophen; no matter the generic manufacturer, they all call their product acetaminophen). Your insurance company, your healthcare provider, and even your pharmacy may each prefer a different generic manufacturer, even though each product is the same as the brand-name. The benefit of one generic manufacturer over another may have to do with the cost

of making the medication, or with the inactive ingredients included in the product, such as colors.

Q: How do I start using oral contraceptives? ¹⁻³

A: You will take 1 pill by mouth every day (your particular medication may not have placebo pills for the days of your menstrual cycle). You will take 1 pill every day **even if** you do not have sex, or don't plan on having sex. For oral contraceptives to work, 1 pill must be taken every day. You do not take active pills only on the days you have sex. Most all products are pre-printed with the first active pill to be taken on a Sunday. Each packet of pills will also have stickers with the days of the week on them so you can start your packet on a day other than Sunday.

There are 2 ways to start taking combination oral contraceptives. For a "Sunday Start", take your first active pill on the first Sunday after your period starts. For example, if your period starts on a Friday, you will take your first active pill 2 days later, on Sunday. Back-up contraception (using another form of contraceptive other than oral birth control, such as condoms) for the next 7 days is needed if you choose a "Sunday Start". For a "First Day Start", take your first active pill on the first day of your menstrual cycle. For example, if your period starts on a Friday, you will take your first active pill that same day (Friday). No back-up contraception is needed if you choose a "First Day Start". No matter the method you choose to start taking your combination contraceptive, you should always try to take your pills at about the same time every day.

To start taking your progestin-only oral contraceptive, you will take your first active pill on the first day of your menstrual cycle. For example, if your period starts on a Friday, take your first active pill that same day (Friday). Because these pills do not contain estrogen, you will need

to use back-up contraception until the beginning of your next menstrual cycle. Progestin-only contraceptives **must be taken at the same time every day**. Missing your dose by **3 or more hours** means you need to use back-up contraception for at least the next 48 hours.

Q: What should I do if I miss a dose of my combination contraceptive? ¹⁻³

A: If you are using a combination oral contraceptive and you forget to take 1 active pill, take the pill you forgot as soon as you remember. Then, take your next pill at the regular time that day. You won't need any back-up contraception. If you forget to take 2 active pills, take the next 2 pills as soon as you remember (both the one you missed and today's pill), then take the next 2 pills tomorrow. You won't need any back-up contraception. If you forget to take more than 2 active pills, take the very last pill you missed as soon as you remember, and throw away all the other pills you missed. Then, continue taking the rest of the active pills as usual. You will need back-up contraception for the next 7 days.

Anyone who go longer than 7 days without taking an active pill should start a new cycle of pills immediately, and use back-up contraception for the next 7 days. You can always call your pharmacist and ask for their advice on what to do if you miss any active pills.

Q: What should I do if I miss a dose of my progestin-only contraceptive? ¹⁻³

A: If you are using a progestin-only oral contraceptive and you are late taking an active pill by 3 hours or more, take the pill you forgot as soon as you remember, then take your next pill at the regular time that day. You will need back-up contraception for the next 48 hours.

If you forget to take 2 or more active pills, take the last pill you missed as soon as you remember, and throw away all the other pills you missed. Then, continue taking the rest of the active pills as usual. You will need back-up contraception until your next menstrual cycle. You can always call your pharmacist and ask for their advice on what to do if you miss any active pills.

Q: Does using oral contraceptives increase my risk for cancer? ¹⁻⁵

A: It's true that many types of cancers can be influenced by hormone levels in your body. Because of this fact, there was a concern that using hormone-containing products, like oral contraceptives, may increase your risk of developing hormone-related cancers of the reproductive tract and breast. However, more research has revealed that long-term users of oral contraceptives may actually have a decreased risk of some of these types of cancers. Use of combination oral contraceptives actually causes a 50% decrease in the number of endometrial cancer cases that happen within 2 years of use, due to the progestin within the combination pill. And, this protection from endometrial cancer continues even 15 years after stopping oral contraceptives. Additional evidence suggests that combination oral contraceptives also decrease the number of ovarian and colorectal cancer cases, as well as the number of ovarian cyst cases.

Combination oral contraceptive use for 5 years or more may possibly double your risk of cervical cancer. But because of differences in sexual health behaviors, possible strains of HPV infection(s), recurrence of HPV infection, and vaccination status for HPV, the exact connection between combination oral contraceptives and cervical cancer risk cannot be established at this time. Females who have prolonged or recurrent HPV infections and also use combination oral contraceptives may have an increased risk of developing cervical cancer. More evidence and research is needed on progestin-only oral contraceptives on whether or not these products have an effect on cervical cancer development.

The risk of breast cancer is slightly increased in users of combination oral contraceptives, no matter how long they have been used. However, the overall risk of breast cancer in young females is very, very low. The risk of developing breast cancer as a younger female also depends

on many other risk factors. Within 10 years of stopping combination oral contraceptives, there is no difference in the breast cancer rate between females who used to use combination oral contraceptives and those who did not. Any female who has ever used a combination oral contraceptive typically develops a more localized cancer (limited to just the breast tissue), which is more easily treated. Overall, there does not seem to be a significant change in a female's risk of breast cancer based on whether or not she has used or is currently using combination oral contraceptives. More research is needed on progestin-only oral contraceptives on whether or not these products have an effect on breast cancer development.

The overall risk of liver cancer is very small, but long-term users of oral contraceptives do have a slightly increased risk of developing liver cancer, as opposed to people who do not use oral contraceptives, or only use them for a shorter period of time.

Q: Does using oral contraceptives increase my risk for heart attacks, strokes, and heart disease? ¹⁻⁵

A: Estrogen is the active ingredient that is related to an increased risk of heart attack, stroke, heart disease, and other related disorders. Any female with a risk of these, or other related diseases, should not use estrogen-containing products of any kind. Progestin-only products do not have an increased risk of these life-threatening conditions, and can be a great alternative for females who cannot or should not use estrogen-containing products (see, "H is for Hormones" for more information on estrogen's role in blood clotting). However, the risk of these diseases is usually very small in otherwise healthy females, and can be increased by other factors such as age, smoking status, increased weight, and family history of heart disease.

Chapter 3: C is for Male & Female Condoms

Q: How do I use a male condom? ⁵

A: The following link describes how to properly use a male condom:

<http://www.trojancondoms.com/ArticleDetails.aspx?ArticleId=10>

Q: How do I use a female condom? ⁷

A: The following link describes how to properly use a female condom:

<http://plannedparenthood.org/learn/birth-control/female-condom>

Chapter 5: E is for Emergency Contraceptives

Q: Is there a way to get a discount on ECPs? ³

A: The following link leads to a Plan B One-step Savings coupon:

<http://planbonestep.com/toolkit.aspx?id=coupon>

Chapter 6: F is for Female Reproductive Cycle & Menses

Q: Which feminine hygiene product(s) should I use? ⁴

A: Tampons and menstrual cups are great for active females, or for water sports. These products can be easily worn with any type of clothing and won't show through. Liners are a great way to help protect your clothing from any menses blood that leaks from your tampon or menstrual cup. Pads are perfect to wear through the night, or in combination with a tampon or menstrual cup for very heavy flow.

Q: Is it okay to have sex while I'm (or my partner is) menstruating? ⁵

A: Having sex with someone on their period is a matter of personal preference. Some females have a higher sex drive while on their period, and other females have a lower sex drive. Their partner(s) may be okay with the sight of blood, but some partners aren't. Having sex while on your period will not hurt you or your partner. Females cannot get pregnant while on their

period, because their uterine lining is being shed, including the egg that was ovulated earlier in the cycle. The biggest concern with having sex while on your period is the possibility of getting or giving STIs. A female's entire uterine lining is being shed, which creates an environment very similar to an open wound. This creates a big opportunity to spread STIs from either partner.

Chapter 9: I is for Intrauterine & Implantable Devices

Q: Is there a way to get Paragard for lower cost?

A: The following information is from the manufacturer of Paragard™, TEVA.

Homepage: www.tevawomenshealth.com

1090 Horsham Road, North Wales, PA 19454

(201) 930-3300 (Main)

(800) 227-7522 (Alternate)

(201) 930-3328 (Main Fax)

Paragard™ Intrauterine Device Patient Assistance Program

<http://www.needymeds.org/papforms/parpae0461.pdf>

(800) 425-3122 (program phone)

(201) 930-3300 (provider phone)

(800) 685-2577 (program fax)

Chapter 12: L is for Law Review

Q: How can I find out more about specific laws in my state?

A: You can call 1-800-656-HOPE (1-800-656-4673) to find out more about the laws in your state.

Chapter 14: N is for Nuvaring™

Q: Are there any coupons available for Nuvaring™?

The manufacturer of Nuvaring™ has an online coupon that can help cover the cost of this device. You can find a link to the coupon here:

<http://www.Nuvaring™.com/consumer/coupon/>³

Chapter 18: R is for Rape

National Sexual Assault Hotline: 1-800-656-HOPE (1-800-656-4673)

National Domestic Violence Hotline: 1-800-799-SAFE (1-800-799-7233)

Girls and Boys Town National Hotline: 1-800-448-3000

Q: I'm not directly a part of a suspicious event or conversation – what do I do? ⁷

A: A bystander is a person who is not directly involved in a sexual violence event, but is a witness to what is going on or the events that led up to sexual violence. For example, a bystander may have overheard a conversation between 2 people that included the threat of sexual violence. Or, a bystander may see a person getting more and more drunk, making them an easier target for violence. No matter the situation, there are steps you can take as a bystander to help protect those around you. The following is an acronym, developed by the Rape, Abuse and Incest National Network (RAINN), to help you remember what you can do to help someone who is (or you suspect) is in trouble:

“A good friend knows how to C.A.R.E.”

C is for Create a Distraction

Creating a distraction can help protect a victim from sexual violence by distracting the attacker, and will get the attention of other bystanders. There are lots of ways to create distractions. If you see a suspicious or threatening conversation, try to interrupt it. You can try

phrases like, “Let’s go, this party sucks”, “I’m bored, let’s go do something else”, “I have to get home early for class tomorrow...”. Use any phrase or line to get the victim away from a threatening person or situation. Other ways to create a distraction could include starting a game, movie, or any other activity that brings a crowd. And, get new drinks or food for everyone, including the people you are worried about and any other bystanders.

A is for Ask Directly

Sometimes you have to be upfront with your concerns. Some examples of how to check in with the person you are worried about include, “Are you feeling okay?”, “Who did you come here with? Where are they?”, “Do you want me to stay with you?”, “Do you want me to call or text someone to pick you up?”. If the person you are worried about is drunk, using drugs, or has been drugged, asking them questions may prove difficult. If this is the case, get help for them immediately! If they can’t answer your questions, they can’t consent – and could become a victim of sexual violence.

R is for Refer to Authority

An authority can be a residence assistant (RA) or dorm supervisor, apartment manager, security guard, campus police, bartender, waitress, bouncer, or police officer. If you’re at a bar, restaurant, or an event, ask the staff for help – they want their customers to be safe, and will usually help out in these kinds of situations. Most businesses still have a landline telephone you could ask to use if your phone is dead or lost.

E is for Enlist Others

Sexual violence is less likely to happen if there’s a crowd paying attention to the situation. You can get more bystanders involved, or get the attention of a friend or roommate

who knows the people you're worried about. You can ask them to help you, or ask them to intervene for you. The more people involved, the safer it is for everyone.

It can be difficult to recognize situations where someone may need help, and it can be even harder to have the courage to do something. You may feel as if you don't know what to say or what to do, or that it's none of your business, or that someone else will surely do something. The truth is, every other bystander is having these exact same thoughts as you are – which leads to no one doing anything. Speak up, and you could help prevent sexual violence.

Chapter 19: S is for Sexually Transmitted Infections

Q: Are condoms with spermicidal lubricants better than regular condoms? ³⁵⁻³⁷

A: Condoms lubricated with spermicidal products are **no more effective** than non-spermicidal lubricated condoms when offering protection against STIs. Using condoms with spermicidal lubricant is **not** recommended for STI (and HIV) prevention. However, condoms have proven themselves to be effective at reducing your risk of getting or spreading STIs (see “O is for OTC Contraceptive Products”).

Q: What is mutual monogamy? Why is it important? ²

A: The scariest part of STIs may be the lack of symptoms. Infected individuals can go for weeks, months, and even years without knowing they have an STI. During that time, every sexual encounter is a risk of spreading that STI to someone else, and someone else, and someone else. Since STIs can be invisible, often lifelong infections, prevention is key. An important part of STI prevention is mutual monogamy. Mutual monogamy is a sexual relationship in which 2 partners only have sex with one another. The CDC defines the length of time for mutual monogamy as a minimum of 6 months exclusively with the same sexual partner.

Q: Did I get this from my partner? ²

A: Many STIs are symptomless for a long period of time. Because of this fact, being diagnosed with an STI doesn't necessarily mean your partner "gave it" to you. There's usually no way to know how long you've had an STI, and whether or not your partner(s) spread it to you, or you to them. Diagnosis with an STI doesn't always mean your partner(s) have had sex outside of your personal, sexual relationship. It is always important to be honest with your partner(s), for both their sexual health and yours.

Q: A lot of STIs can cause PID. What is PID? ^{6, 30-31}

A: Pelvic inflammatory disease (PID) is inflammation that affects a female's reproductive organs. Usually, PID is result of having an untreated STI. However, other types of non-STI infections can also cause PID. Diagnosis of PID is based on symptoms, medical history, physical exam, and other test results. You may not realize you have PID because your symptoms may be mild, or you may not have any symptoms. If you do have symptoms, you may notice fever, abnormal discharge from your vagina, pain in the lower abdomen, pain and/or bleeding when you have sex, or between periods, and pain or burning when peeing. Risk factors for developing PID include having untreated STIs, a history of PID, being 25 years old or younger and sexually active, having multiple sex partners, or partner(s) with multiple other partner(s), using Intrauterine Devices (IUDs) or douching. PID can become a serious medical condition if not evaluated right away by a healthcare professional. Treatment for PID is usually a course of strong antibiotics. However, medical treatment of PID cannot reverse any damage due to chronic inflammation, such as scar tissue. Scar tissue sometimes leads to PID complications. These complications include:

1. Fallopian tube blockage, which can lead to difficulties in becoming pregnant (approximately 1 in 8 women with a previous history of PID have trouble getting pregnant later)
2. Infertility
3. Ectopic pregnancy (pregnancy that occurs outside of the womb)
4. Chronic pelvic or abdominal pain

If you suspect you may have PID, seek medical care right away for both yourself and your partner(s). Re-infection with an STI from an untreated partner will likely cause another case of PID for you. It is important to have your partner(s) treated, even if they don't have any symptoms of an STI. Remember, many STIs are initially symptomless, but can still be passed from partner to partner. There are ways to reduce your risk of getting PID. The best way to protect yourself from PID is to protect you and your partner(s) from STIs.

Q: Do I have a legal obligation to tell my partner(s) I have an STI? ³²⁻³⁴

A: In some states, you (and even your healthcare provider) have a legal requirement to report certain STIs to the local health department, such as HIV, and to alert any partner(s) of your diagnosis. A few states have criminal laws regarding STIs and partner alerting. However, you could face a civil lawsuit from your partner(s) if they get an STI from you. A civil lawsuit is when someone has experienced harm or damages as a result of someone else's actions, or lack of action. In civil lawsuits, no laws are necessarily broken; "harm or damages" could be broken items, lack of compensation for services, or even emotional trauma. With STIs, a civil lawsuit could be filed for medical bills, days off from work, and emotional trauma and suffering. You can find specific information about your state's laws from the CDC's website:

<http://www.cdc.gov/STI/program/final-STI-statutesall-states-5june-2014.pdf>

Chapter 21: U is for Urinary Tract Infections

Q: Is there any way to prevent UTIs? ^{1, 5-6}

A: Changing your personal hygiene habits and lifestyle can help prevent UTIs. Making sure to urinate before and after any sexual activity, wiping from front to back while using the bathroom, staying well hydrated and peeing throughout the day, avoiding taking baths and douching (using liquid products to “flush” out or clean the vagina), or using sprays and powders in the genital area. Some scientific studies has shown that cranberry products, like cranberry juice, capsules, and extracts, can reduce the overall number of UTIs in **females with reoccurring bladder infections** by about 30%. Cranberry products are also effective at reducing the **general risk** of bladder infection in **females**. There is very little evidence for using cranberry in males with bladder infections. And, it’s not clear what kind of cranberry product should be used, and how much of it is needed for UTI prevention. Cranberry is not an effective treatment of an active bladder infection. Cranberry can interact with both prescription and over-the-counter medications. Before you use any cranberry-containing products, talk to your pharmacist about whether cranberry products are a good option for you.

There is some evidence that suggests probiotics may help prevent bladder infections from occurring, especially probiotics with **lactobacilli**. Scientific studies on probiotics for bladder infections is limited though, and it’s unclear how much or how often to use probiotics. You should always talk to your doctor and pharmacist first before starting any preventative treatments for bladder infections.

Chapter 22: V is for Vasectomy

Q: Will getting a vasectomy affect my sexual “performance”? ¹⁻⁴

A: A vasectomy doesn't change a male's ability to have sex, ejaculate, or orgasm. Your body still produces fluid from other sex organs –the only difference is that there are no sperm in the semen to cause pregnancy.

Chapter 23: W is for What Is Sex?

Q: Am I ready for sex? ¹

A: Being sexually active does have risks – both physically and emotionally. For some, becoming sexually active is planned out, but for others, becoming sexually active just kind of “happens”. Ask yourself a few questions about your partner(s). Depending on your answers, you may not be ready to become sexually active with that person yet.

1. Do I trust my partner? Do they trust me?
2. Do I respect my partner? Do they respect me?
3. Do I really like my partner? Will my partner still like me if we don't have sex?
4. Do I want to do this, or does my partner want me to?
5. Do I feel comfortable doing this?
6. Do I have a plan in place to protect myself from STIs? Does my partner have a plan to protect themselves from STIs?
7. (if applicable) Do I have a plan in place to protect myself from pregnancy? Does my partner have a plan to protect themselves from pregnancy?
8. Is this something my friends want me to do?
9. Why do I want to start having sex?

Q: Is it possible to have too much sex? ¹

A: The answer to this question really depends on you and your partner(s). Here are a few examples of some questions to ask yourself:

1. Are my sexual activities getting in the way of time spent doing homework, going to school, working, exercising, chores, seeing other friends and family, or other responsibilities?
2. Am I physically healthy enough to have sex?
3. Have my partner(s) and I been screened recently for STIs? Have one of us recently been treated for an STI?
4. Am I emotionally healthy enough to have sex?
5. Is there more to my relationship with my partner(s) than just sex? Do we all agree on the answer to this question? Are we all okay with our answers?

Again, the answer to this question really depends on what you and your partner(s) think. Always talk to one another about any concerns you may have, and be open to hearing their concerns as well!

Q: Will you “lose it” if you don’t use it? ¹⁻³

A: You will not lose your sexual drive if you don’t use it. Sex is a natural part of human life, but that doesn’t mean everyone is ready for sex at the same time. Everyone has a sex-drive that changes over time. Only you know when you’re ready to become sexually active. And, only you know when you want to keep having sex.

Q: Is masturbation bad? ¹⁻³

A: Masturbation is a normal part of having sexual desire, and can be a way to relieve stress and anxiety. Masturbation can be a part of foreplay or a way to help with premature

ejaculation. Again, ask yourself the 5 questions listed above to see if masturbation is affecting your life negatively.

Q: What is Douching? ⁶⁻⁷

A: Douching is the process of rinsing the inside of the vagina with either water or other cleansers. Many stores sell douching products, which are mixes of iodine, baking soda, or vinegar, and are squirted into the vagina with a squeeze bottle or bag. The American College of Obstetricians and Gynecologists do not recommend douching for any female, even after sex. Your vagina produces its own mucus as a self-cleaning agent. Douching does not prevent pregnancy, and can increase your risk of vaginal infections, pelvic inflammatory disease (see, “S is for Sexually Transmitted Infections” for more information). Regular douching can even make it difficult to become pregnant in the future, or can increase your risk of ectopic pregnancy (implantation of the egg outside of the uterus; see, “Z is for Zygote to Fetus: What is Pregnancy” for more information).

Chapter 25: Y is for Yeast Infections

Q: Is there any way to prevent yeast infections? ³⁻⁴

A: For most females, medications to prevent yeast infections are not needed. Wearing cotton underwear may help reduce the risk of developing a yeast infection by protecting against moisture and irritation. If you have had 3 or more yeast infections in 1 year, you could try oral or vaginal probiotics, especially those with *lactobacilli*. But, there is very little scientific research about using probiotics to reliably prevent yeast infections. It's not clear how much or how often to use probiotics to prevent yeast infections. You should always talk to your doctor and pharmacist first before starting any preventative treatments for yeast infections.

Q: What is a broad-spectrum antibiotic? How do they increase my risk of having a yeast infection? ¹⁻⁴

A: Not all antibiotics are created equal. Some antibiotics work only against certain kinds of bacteria. Antibiotics that work against many kinds of bacteria are called **broad-spectrum antibiotics**. Antibiotics are used to kill bacteria, not fungi like Candida (which needs an antifungal to treat). However, using antibiotics can kill off any bacteria that normally keep your natural Candida population in check. The more kinds of bacteria that are killed, the more likely Candida is to grow out of control. This is why broad-spectrum antibiotics are more likely to cause yeast infections. Sometimes, your doctor may prescribe you an antifungal medication, to use after you finish a course of broad-spectrum antibiotics.

Chapter 26: Z is for Zygote to Fetus: What Is Pregnancy?

Q: How do pregnancy tests work? ⁴⁻⁶

A: More than 60% of pregnancies in the U.S. are not planned. Because of this, many of these unintended pregnancies lack prenatal care during the first several weeks of pregnancy. Knowing you're pregnant as soon as possible gives you the most options on what to do next.

Pregnancy tests rely on measuring levels of human chorionic gonadotropin (hCG) hormone. This hormone can be measured in a pregnant female's urine. Pregnancy test kits are treated with a special chemical that reacts with hCG if it is in urine. **Pregnancy tests do not work until after implantation** – at least 10 days into pregnancy. Approximately 10% of females do not have an implanted zygote after 10 days.

There are several types of pregnancy tests available. Pregnancy kits are available at many drug stores, pharmacies, grocery stores, healthcare provider offices, clinics, and online. Some insurance companies will pay for pregnancy tests, or a doctor's appointment to get a pregnancy

test. Family planning clinics like Planned Parenthood also offer free or low-cost pregnancy tests. Before being sold, all pregnancy tests must pass specific Food and Drug Administration (FDA) recommendations and quality control tests. All pregnancy tests are about 99% effective at detecting pregnancy. The biggest difference between pregnancy tests are the types (digital or manual), and how quickly they can detect pregnancy. The more sensitive a pregnancy test is to hCG levels, the earlier it can detect pregnancy. Improperly used pregnancy tests are only 50-75% effective at detecting pregnancy. Because of this, it is very important to understand how to use a pregnancy test. Be sure to follow the included directions **exactly**. For most manual tests, 2 lines means pregnancy, and only 1 line means no pregnancy. Many kits come in a twin-pack, for retesting in 1 week (in cases when the embryo has not implanted yet).

CHAPTER 18: R IS FOR RAPE

What is Rape? ¹⁻⁶

The FBI defines “rape” in its Uniform Crime Reports document as, “Penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim.” Additionally, there are 3 factors that must be considered when trying to determine if the situation was a rape or other form of sexual violence. First, are the people involved old enough to legally consent to the sexual act(s)? Secondly, are the people involved able to consent? For example, are they drunk, using drugs, unconscious, or physically, emotionally, or mentally handicapped? And lastly, did the people involved agree to take part (consent)? For example, were they physically forced or threatened, and did they continue to consent throughout the sexual act(s)?

Any person, no matter their gender, age, race, social class, or religious beliefs can be a victim, bystander, or perpetrator of sexual violence. Over 293,000 cases of rape and sexual assault of victims ages 12 years or older occur each year in the U.S. The vast majority of these crimes are committed by someone the victim knows personally. You can be raped by someone you had a prior dating history or relationship with, or by someone you are currently dating or having a relationship with. Some states even have laws about rape that can occur between married partners. Rape and sexual violence is **never** the victim’s fault. The person(s) who initiated the sexual violence are to blame, not the victim, no matter what.

Even though rape is against the law in the U.S., it still happens every day in many different settings. There are certain kinds of activities that may have a higher chance of sexual violence occurring. The following links are some tips from the Rape, Abuse, and Incest National Network (RAINN) on how to stay safe and reduce your risk of sexual violence.

When Drinking, or at an Event, Party, or Bar:

<https://rainn.org/get-information/sexual-assault-recovery/protecting-your-friends>

Social Media and Online Safety:

<https://rainn.org/get-information/sexual-assault-prevention/meeting-offline>

<https://rainn.org/sexual-assault-prevention/social-media-safety>

Surviving

In the event that you are being attacked, or are about to be, it can be hard to stay calm and think about what you need to do. You should focus on running away from your attacker(s), not fighting back. Running away will give you the best chance at finding help and preventing further sexual violence. Make as much noise as possible – even if you don't think anyone is around to hear you. Making lots of noise can deter an attacker from continuing after you. Try and find a public place or an area with lots of people who can help you.

Reporting

After a rape or other form of sexual violence, many victims may be too scared or ashamed to report these crimes to the authorities. It's ultimately your choice whether you want to report these crimes right away, later, or not at all. No matter what you decide about police reporting, you should still get medical attention right away. Deciding to delay or not fill out a police report (or, "press charges") will not affect the quality of medical care you receive.

In the first 24 hours:

1. Do **not** shower, bathe, douche, wash your hands, face, or body in any way, change your clothes, brush your hair or teeth, clean your fingernails, eat or drink, or go to the bathroom. Date rape drugs can be found in urine, but only for a few hours after being used. Do not go pee until you have been given a urine drug screen test.

2. If you decide to change your clothes, bring every clothing item in separate **paper bags** to the hospital or police station.
3. Call the police or emergency services immediately, or go to a hospital or police station. Bringing a friend can help you stay calm. And, have your friend carry a change of clothes and some personal care items for you to use after the physical exam and evidence collection.

When you first arrive at the hospital or police station, you'll undergo a complete physical exam of your body and genitals. Specially trained medical police officers, or a nurse or doctor, will perform these exams. These exams will help authorities collect evidence of your attack, such as your attacker's semen, blood, vaginal fluids, hair, and fingerprints. These exams are also a way to determine if you have any other injuries that need medical attention. Any medical or police services you require will be performed by someone of your same gender – if you're uncomfortable with this for any reason, speak up! All authorities involved are specially trained to help you in any way possible. You'll also have a urine drug screen (for date rape or other drugs) and STI tests. You'll also be offered emergency contraception products, and medications to prevent STI infection. If you are not offered any of these services, ask for them. After all physical evidence has been collected, you'll be given the chance to shower and clean up.

When you first contact the authorities, the police will want to interview you about your attack. You have the choice to answer their questions right away, or you can ask for this interview to be delayed. You can always change your mind about pressing charges or answering questions at any time.

Both the hospital and police can help you find a counselor or therapist to speak with – and you should speak with someone! You should also talk to your parents or guardians about what happened to you, and what they can do to help you.

Resources

1. RAINN: Rape, Abuse, and Incest National Network [Internet]. Washington (DC): RAINN; c2009. Was I Raped; [update unknown, cited 2015 Sep 9]; [about 2 screens]. Available from: <https://rainn.org/get-information/types-of-sexual-assault/was-it-rape>
2. RAINN: Rape, Abuse, and Incest National Network [Internet]. Washington (DC): RAINN; c2009. The Laws in Your State; [update unknown, cited 2015 Sep 9]; [about 52 screens]. Available from: <https://rainn.org/public-policy/laws-in-your-state>
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CHAPTER 19: S IS FOR SEXUALLY TRANSMITTED INFECTIONS

What are Sexually Transmitted Infections? ¹

The term Sexually Transmitted Infection (STI, or Sexually Transmitted Disease, STD), describes any kind of illness that can be spread through sexual contact with another infected person. The Centers for Disease Control and Prevention (CDC) is one of the top organizations in the United States that monitors the spread of Sexual Transmitted Infections (STIs). Their website, which is updated continuously, has information for both healthcare providers and patients about many different topics related to STIs. In December of 2014, the CDC published the, "Sexually Transmitted Disease Surveillance 2013" report. This annual report can be found here:

<http://www.cdc.gov/STI/stats13/surv2013-print.pdf>.

Within this report, the CDC describes the impact STIs have on the personal health of males and females of all ages, races, and location in the United States. Some infections are becoming increasingly harder to treat, and infection rates are on the rise, but other infection rates are decreasing. It is important to understand what kinds of STIs exist, and how to best prevent future infections.

Bacterial Vaginosis ²⁻⁵

Bacterial vaginosis (BV) is an imbalance in the natural bacterial population of the vagina, leading to infection. BV is the #1 infection in females ages 15-44 years (about 29.2% of females in the U.S.). BV only affects females, but sex with any gender(s) can lead to bacterial imbalances. BV infection is related to sexual activity, but scientists are not sure how. Risk

factors for developing BV include having multiple sex partners (risk increases with every new partner in lifetime), having a new sex partner(s), and douching. Females who have not had sex can still get BV. Because of this, BV is not technically considered an STI. But, having BV can increase your risk of getting an STI. Approximately 80% of females with BV do not have any symptoms. Symptoms of BV can include a thin, white or grayish vaginal discharge, pain, itching, or burning in or around the outside of the vagina, a strong, “fish-like” smell from the vagina, especially after sex, and even burning while peeing.

BV can go away on its own. But, antibiotics are usually needed. Be sure to ask your pharmacist about whether or not you should avoid alcohol while taking these medications – some medications used to treat BV can cause a very unpleasant reaction if you drink alcohol. Even after treatment with medication, BV can reoccur. Any other female partner(s) should also seek evaluation and treatment. If BV is left untreated, females can have an increased risk of getting or passing HIV, gonorrhea, and chlamydia, as well as an increased risk of future BV infections. Since the cause of BV is not fully understood, prevention techniques are limited. As with STIs, abstinence from oral, anal, and vaginal sex can help prevent BV. You should also avoid douching, and should limit your number of sexual partners (and their other partners) if possible, by staying in a mutually monogamous relationship (see, “Q is for Questions & Resources”).

Chlamydia ^{2, 6-9}

Chlamydia (Clam, Goey Stuff) is a bacterial infection due to specific bacteria. Laboratory tests can be used to identify this bacteria from either a vaginal swab or from urine. Chlamydia can affect both males and females. Most people don't have symptoms, and symptoms may not happen for several weeks after the initial infection. Symptoms of chlamydia might include an abnormal discharge from penis or vagina, or burning while peeing. Males may have

swelling or pain in one/both testicles. Chlamydia can also affect the anus, causing pain, discharge, and bleeding. Chlamydia is spread through unprotected oral, anal, or vaginal sex with an infected partner. Male partners do not have to ejaculate (cum) to spread chlamydia to their partner(s). Females younger than 25 years old, bisexual or gay males, and anyone with multiple sex partner(s) should get regular chlamydia tests.

Chlamydia can usually be cured quickly with antibiotics. If left untreated, chlamydia can cause uterine scarring. Future, sometimes fatal, pregnancy complications may occur as a result of uterine scarring. Complications of chlamydia are rare in males, but may include fever, pain in the testicles or groin, and infertility. There is a much lower risk of future complications if this infection is treated right away. Reinfection with chlamydia is common, especially in females whose partner(s) were not treated. All patients should be re-tested for chlamydia 3 months after treatment, even if their partner(s) were also treated. You should not have any sex with anyone until you and your partner(s) have finished your antibiotic treatments. This will help prevent passing the infection back and forth between partner(s). For single-dose antibiotics, wait 7 days after treatment before returning to any sexual activities. Be sure to ask your pharmacist about whether or not you should avoid alcohol while taking these medications – some medications used to treat chlamydia can cause a very unpleasant reaction if you drink alcohol.

There are several ways to protect yourself from chlamydia. Ways to prevent chlamydia infection include abstinence from oral, anal, and vaginal sex, having a mutually monogamous sexual relationship with a partner who has tested negative, and using condoms during all sexual activities.

Gonorrhea ^{2, 6, 10-12}

Gonorrhea (Clap, Dose, Drip) is a bacterial infection due to specific bacteria. Lab tests can be used to identify this bacteria from cervical, oral, urethral, and anal swabs, or from urine. Gonorrhea can affect the anus, vagina, penis, mouth and throat. Most females, and some males, have no symptoms of infection at all. Males may notice a green, yellow, or white discharge from the penis, burning while peeing, and painful or swollen testicle(s). If a female does have symptoms, they are usually very mild, and easily mistaken for a UTI or other vaginal infection. Females may notice burning while peeing, abnormal vaginal discharge, and possibly bleeding between periods. Rectal infections can also happen in both males and females. Symptoms of anal infections include anal discharge, bleeding, pain and soreness, and itching.

Gonorrhea is a very common infection, especially in sexually active 15-24 year olds. Females under the age of 25 years old should be tested yearly for gonorrhea. Gonorrhea can be cured with antibiotics, but is becoming more difficult to treat due to bacterial resistance to typically used antibiotics (see, "J is for Just In Case: Back-Up Contraception & Antibiotic Use"). While you are being treated, do not have any sex with anyone for 7 days after you and your partner(s) have finished your antibiotic treatments. This will help prevent passing the infection back and forth between partner(s). Be sure to ask your pharmacist about whether or not you should avoid alcohol while taking these medications – some medications used to treat gonorrhea can cause a very unpleasant reaction if you drink alcohol. If left untreated, gonorrhea can lead to infertility in females. Males may rarely notice pain and inflammation in the testicles, which could cause infertility. Very rarely, gonorrhea can cause blood and joint infections. Having gonorrhea also increases your risk of getting or passing HIV from/to your partner(s). There is a much smaller risk of future complications if gonorrhea is treated right away.

There are several ways to protect yourself from gonorrhea. Ways to prevent gonorrhea infection include abstinence from oral, anal, and vaginal sex, having a mutually monogamous sexual relationship with a partner who has tested negative, and using condoms during all sexual activities.

Genital Herpes ^{2, 13-15}

Genital herpes is a viral infection caused by the herpes simplex virus types 1 or 2. Diagnosis of herpes is made by looking at symptoms, or with skin samples taken from sores. The herpes viruses are **not** the same as the Human Papilloma Virus (HPV), Hepatitis B Virus (HBV), or the Human Immunodeficiency Virus (HIV). Approximately 1 out of 6 people ages 14-49 years have genital herpes in the U.S.

Most people don't have symptoms, or if present, symptoms are usually mild, and often mistaken for an ingrown hair, pimple, or other irritation to the skin. Herpes sores look like fluid-filled blisters, and can be near the vagina, penis, anus, or mouth. These blisters eventually break, leaving open, weeping sores that take weeks to heal. Symptoms come and go, with many weeks or months between outbreaks. First-time outbreaks usually have other symptoms like fever, swollen lymph nodes, body aches, and chills.

Complications from herpes are rare, but possible. Herpes sores can become very painful and severe, especially for people with suppressed immune systems. Touching sores or the fluids from the sores can transfer the infection to another part of your body, like your mouth or eyes. Open sores can bleed, leading to increased risk of spreading to your partner(s). Open sores can also become infected with other bacteria. People with open herpes sores also have an increased risk of getting or passing HIV from/to partner(s).

Herpes has no cure, and you will most likely have the virus for life. Antiviral medication can help manage or prevent future outbreaks, but will not always get rid of the virus completely. Some medications are taken only during an outbreak, while others are taken every day. Daily medication can help prevent spreading herpes infection to your partner(s). Even with treatment, repeat outbreaks are very common, especially during the first year of infection. But, outbreaks usually become less severe and less frequent with time.

Ways to protect yourself from genital herpes include abstinence from oral, anal, and vaginal sex, and having a mutually monogamous sexual relationship with a partner who has tested negative. Using *latex or polyurethane condoms* (see, "C is for Male & Female Condoms") can help reduce your risk, but will not completely eliminate all risks of getting herpes. Sores can occur in areas not covered by condoms. An infected partner does NOT have to have a visible sore to be contagious – the herpes virus is spread through skin contact and blister-fluids, and also blood.

Hepatitis B ^{2, 6, 16-17}

There are several kinds of hepatitis infections, which are all caused by different hepatitis viruses. Hepatitis B infection (HBV, Hep B) is caused by the hepatitis B virus (HBV). Hepatitis viruses are not the same as Human Papilloma virus (HPV), Human Immunodeficiency virus (HIV), or herpes viruses. In 2013, there were approximately 19,764 new infections of HBV in the U.S. Infection rates are highest among males ages 25-44 years. Infection with HBV can be acute (short-term) or chronic (long-term). About 2-6% of adults with HBV develop chronic infections. Between 700,000-1.4 million people in the U.S. are estimated to have chronic HBV infection. Between 30-50% of healthy adults will have symptoms after exposure to HBV. Symptoms begin about 90 days (60–150 days) after exposure to HBV. Symptoms of HBV

infection include fever, joint pain, tiredness, and dark-colored urine, yellowing of eyes and skin, loss of appetite, nausea, and vomiting.

Treatment for acute HBV infection is for symptom-relief only; no antiviral treatments are available to get rid of the virus entirely. However, if treatment is given within 24 hours of exposure, it can prevent HBV infection. Treatment for chronic HBV infection involves daily antiviral medications, for life. Regular health exams are also an important part of chronic HBV management. Chronic HBV infection causes an estimated 2,000–4,000 deaths per year in the U.S. About 15% of adults with chronic HBV infection die young as a result of liver cirrhosis or liver cancer.

Hepatitis is spread through exposure to body fluids of an infected person, including blood, saliva, vaginal fluids, and semen. This most often happens during unprotected oral, anal, or vaginal sex with an infected partner. Exposure to HBV can also occur from sharing personal care products like razors and toothbrushes with an infected person. HBV is **not** spread through kissing, hand-holding, hugging, coughing, or sneezing. HBV can live on surfaces for at least 7 days, and can still cause infection. There are several ways to protect yourself from HBV. Vaccination is the best way to prevent HBV infection. A national effort to control HBV infection through routine vaccinations in 1991 has cut the rate of new HBV infections by about 82%. The HBV vaccine is a 3-dose series, and is covered by most all insurance companies as part of routine vaccinations. The Advisory Committee on Immunization Practices recommends that certain groups be vaccinated against HBV. These groups include all children younger than 19 years old who have not been vaccinated previously, susceptible sex partners of HBV+ persons, sexually active persons who are not in a long-term, mutually monogamous relationship, people

who are being treated for another STI, and males who have sex with males. Ask your pharmacist about other high-risk groups, and if you should get vaccinated.

You can prevent HBV infection by abstaining from oral, anal, and vaginal sex, and having a mutually monogamous sexual relationship with a partner who has tested negative. Using latex or polyurethane condoms (see, “C is for Male & Female Condoms”) can help reduce your risk, but will not completely eliminate all risks of getting HBV.

Human Immunodeficiency Virus^{2, 6, 18}

Human Immunodeficiency virus (HIV, Has the Package, HI-v) is the virus that causes Acquired Immunodeficiency Syndrome (AIDS). There are many types, or strains, of HIV. HIV has been in the U.S. since the 1970's. Unlike other viral STIs, HIV will not go away on its own. HIV is a lifelong infection, and people who are HIV+ **remain contagious for life**. HIV is spread only through certain body fluids – such as blood (including menses), semen, pre-cum, rectal and vaginal fluids, and breast milk. These fluids must come into contact with a mucous membrane (soft tissue that secretes fluids) such as those found in the vagina, anus, penis, and mouth/lips. HIV-infected fluids can also cause infection through an open wound, such as a sore from an STI. Individuals who engage in anal sex are at the highest risk for HIV infection. Rarely, HIV can be spread between female partners.

HIV attacks your immune system over time, which your body uses to protect itself from other infections and diseases. HIV targets CD4 cells, which are an important part of the immune system. Without a working immune system, people with HIV have a very high risk of getting other infections. Diagnosis of HIV infection can be done with a blood or saliva test. Both of these tests can also be purchased at a pharmacy, and you can send your test sample to a lab for analysis. These labs also provide counseling and advice on what to do with your result. However,

HIV testing is not accurate if done right after a suspected exposure to the virus. It can take several weeks or months before levels of the HIV virus are high enough in your body to be read by the lab test. During this time, you are still very contagious. HIV follows a well-known course of infection, from initial exposure to late infection and AIDS.

Acute Exposure to HIV

Most people don't have any symptoms when they are first infected. Sometimes, you may have flu-like symptoms about 14-30 days after becoming infected, which last for a few days to many weeks. These symptoms include; fever, rash, sore throat, and swollen lymph nodes. These symptoms are your body's response to the quickly multiplying HIV virus, which is attacking your CD4 cells. Eventually, your body will be able to slow down viral multiplying, and HIV levels will become stable. Your CD4 cells will recover, but usually not to the levels they were at before HIV infection.

Clinical Latency (Inactive HIV)

HIV is still within your body, but is multiplying at a very slow rate. Most people don't have any symptoms of HIV, and their immune systems are healthy enough to still fight off infections. Without treatment, HIV+ people may stay at this stage for several years, or even a decade. As more and more CD4 cells are attacked, and the amount of HIV in your body increases, symptoms of late-stage HIV infection begin to appear.

Acquired Immunodeficiency Syndrome (AIDS)

At this point, your immune system is too weak to fight off infections. AIDS patients will continue to get reoccurring infections and illnesses. Most patients at this stage will die within 1-3 years.

Currently, there is no cure or vaccine against HIV. HIV can be controlled with antiretroviral (antiviral) therapy, or ART. These medications help the body to keep HIV under control, which lowers the risk of spreading HIV and slows the progression of HIV to AIDS. With ART, many HIV+ people can expect a long, relatively healthy life, if treated early, quickly, and daily. Even with treatment, HIV can mutate, and become resistant to medications. Missing even 1 dose of ART can cause viral resistance. Someone who is already HIV+ can become infected with another strain of HIV, making the job of controlling virus populations even more difficult. Partner(s) of HIV+ people can take pre-exposure prophylaxis (PrEP) medications to help prevent infection from their partner.

There are several ways to protect yourself from HIV. Ways to prevent HIV infection include abstinence from oral, anal, and vaginal sex, having a mutually monogamous sexual relationship with a partner who has tested negative, and using condoms during all sexual activities. Condoms are not 100% effective at preventing HIV, and do not always cover areas with open sores, which make spreading HIV even easier.

Human Papilloma Virus ^{2, 6, 19-21}

Human papilloma virus (HPV) refers to a large family of viruses. About 79 million people in the U.S. currently have HPV, and about 14 million new people are infected every year, including over 300,000 cases of genital warts. This makes HPV the most common STI. Nearly all sexually active males and females will be infected with at least 1 type of HPV at some point in their lifetime. Most long-term sex partners of an HPV+ person will also become infected with a similar type of HPV at some point. Some HPV cause genital warts, while other types cause cancers. Some types of HPV can affect the mouth and throat, causing either warts or cancer. The types of HPV that cause warts do not cause cancers, and the types that cause cancers do not

cause warts. Vaginal swabs and pelvic exams can be used to detect HPV infection (see, “X is for Sexual Health Exams”). HPV is not the same virus as herpes, HBV, or HIV.

Most people never develop symptoms or complications from HPV, and never know they have it. Symptoms of HPV infection may happen years after having sex with an infected partner. Both males and females can develop genital warts from HPV infection. These warts can be small or large, and may appear in groups. They may be flat, raised, or bumpy like cauliflower. Diagnosis of genital warts due to HPV is done by looking at symptoms. Most cases of HPV go away on their own without treatment. Antiviral medications can be used to treat the symptoms of HPV infection, like genital warts. If certain types of HPV are left unnoticed or untreated, they may lead to certain types of cancers.

HPV can cause cervical, vulva/vaginal, penile, anal, throat, tongue, tonsil, mouth, and neck cancers. These cancers usually develop years (or decades) after getting HPV. There is no way to predict which people with HPV will develop cancer. More than 10,000 females in the U.S. are diagnosed with cervical cancer every year. Cervical cancer is the 2nd most common cause of cancer-related death in females. HPV related cancers are not common in males. Males with weak immune systems (such as HIV diagnosis) have an increased risk of HPV related cancers. Males who receive anal sex are more likely to develop anal cancer. HPV related cancers are usually treatable, especially if found early through screening (see, “X is for Sexual Health Exams”).

There are several ways to protect yourself from HPV. The best prevention is vaccination against HPV (see, “G is for Gardasil™”). Ways to help prevent HPV infection include abstinence from anal and vaginal sex, and having a mutually monogamous sexual relationship. Scientists do not know what the risk is of passing HPV infection during oral sex. Using latex or

polyurethane condoms (see, "C is for Male & Female Condoms") can help reduce your risk, but will not completely eliminate all risks of getting HPV. Sores can occur in areas not covered by condoms.

Pubic Lice ^{2, 22-23}

Pubic lice (Crab Lice, Crabs) are small insects that live on the human body. Pubic lice are most commonly spread through sexual contact. Because of this, they are usually found in pubic hair around the vagina and penis. Pubic lice can also affect the eyebrows, eyelashes, beard and mustache, perianal (anus, or buttocks) chest, leg, and arm hair. Sometimes, pubic lice can be spread through close personal contact with an infected person, or rarely by sharing clothing, bed sheets, towels, pillow cases, and other linens used by an infected person. Pubic lice require a very specific temperature to survive. Pubic lice are not spread by animals because they are much warmer than humans. You cannot get pubic lice from a toilet seat. Pubic lice can only survive for 24-48 hours away from a human host.

Pubic lice have 3 life stages: nits, nymphs, and louses (adults). Nits, or eggs, are very small, yellow to white in color, and are almost "glued" to individual strands of hair. Nits take about 6-10 days to hatch. Once they hatch, they are called nymphs. Nymphs must feed on human blood to survive. After 14-21 days, nymphs grow large enough to reproduce. At this point, they are now called louses, or adult pubic lice. Under a microscope, adult pubic lice look like ocean crabs, hence the nickname. Diagnosis is made by finding louses or nits within the hair. People with pubic lice should also be screened for other STIs. Because pubic lice feed on blood, symptoms of pubic lice infection include itching, as well as visible nits or crawling louses. If left untreated, pubic lice can cause extreme itching, which can cause open sores. These open sores

can lead to secondary bacterial infections, such as staph. Open sores can also increase your risk of getting other STIs, like HIV.

There are both over-the-counter and prescription medications for treating pubic lice. Before trying an over-the-counter medication, be sure to speak with your healthcare provider for specific instructions and advice on which product(s) to use, and for screening of other STIs or complications. Both you and your partner(s), and any roommates, should be treated at the same time to help prevent reinfection later. Always follow the medication directions **exactly** to ensure the best results.

There are several ways to protect yourself from pubic lice. You should avoid all close personal contact (and all forms of sex) with any partner(s) who have pubic lice, are currently being treated, or have been treated within the last month. Do not share any clothing, bedding, towels, or other linens with someone who has pubic lice. The Centers for Disease Control and Prevention (CDC) does not currently recommend shaving away body hair from the affected area(s).

Scabies^{2, 23-24}

Scabies is a disease caused by mites, which are microscopic insects. Human scabies are caused by the human itch mite. Another form of scabies mite causes mange in dogs. The types of mite that affects humans does not affect dogs, and vice versa. The scabies mites burrow into the top layers of the skin. This is where the mites live, reproducing and laying eggs. Mites can affect a majority of the body, or can be limited to certain areas like the webbing between fingers, wrists, elbows, armpits, nipples/chest, shoulder blades, waist, buttocks, or groin. Diagnosis is made through physical exam of the affected area(s), complaints of intense itching, and a “pimple-like” rash. Rash and itch are associated with an allergic reaction to the mites and their

fecal matter. Sometimes, this rash may have small, fluid-filled blisters, or appear scaly.

Confirmation of diagnosis should be made through identification of a scabies mite, mite eggs, or mite fecal matter, either via a skin sample (scraping the top layers of the skin) or by physically removing a scabies mite from a skin burrow. However, confirmation of diagnosis can sometimes be difficult, since only around 10-15 mites are usually present on an otherwise healthy infected person.

Scabies are spread through direct, prolonged, skin-to-skin contact with an infected person. Scabies can spread even quicker in crowded living areas. In adults, scabies are most often spread through sexual activities or from shared living spaces. If a person has never had scabies before, it may take 4-6 weeks before symptoms appear. During this symptom-free time, these people are still contagious and can spread scabies without knowing. For someone who has had scabies in the past, symptoms of reinfection appear in about 1-4 days. People with certain physical or mental disabilities that make it difficult to move or take care of personal hygiene are more susceptible to developing a more severe form of scabies, called Norwegian crusted scabies. People with crusted scabies are infested with thousands of mites, and are themselves incredibly contagious. Their clothing, bedding, towels, other linens, and furniture can also be contagious.

Treatment for scabies requires prescription medication. Over-the-counter medications are not strong enough to reach mites deep within skin burrows. The active ingredients in many over-the-counter medications for pubic lice are the same or similar to prescription products for scabies; however, the **amount** (or concentration, or strength) of active ingredients in products for pubic lice are not strong enough to kill scabies infections. You should not try to use over-the-counter medications to treat scabies! Both you and your partner(s), and any roommates should be treated for scabies at the same time, even if they don't have symptoms. This will help prevent

reinfection later. Complications of scabies are rare; scabies can usually only survive on a human for about 1-2 months if left untreated. Intense scratching can cause open sores. These open sores can lead to other bacterial infections. Open sores can also increase your risk of getting other STIs, like HIV.

Syphilis ^{2, 6, 25-27}

Syphilis (Pox, Bad Blood) is caused by a certain bacteria. Syphilis is spread through direct contact with a syphilis sore during oral, vaginal, or anal sex. Diagnosis can be made by using a blood test, or by analyzing fluids taken from a syphilis sore. After becoming infected with syphilis, symptoms are divided into several stages, based on how much time has passed since your initial infection. People are most infectious during primary and secondary syphilis (when open sores are present), but syphilis can be spread at all stages of infection. Over 50,000 cases of syphilis were reported in 2013, including over 17,000 cases of primary or secondary infection. Syphilis is a major concern for males who have sex with other males. In 2013, about 75% of early stages of syphilis infection were found in this group. High rates of HIV co-infection are also found in this group, since syphilis sores provide an entrance for HIV to enter the body.

Primary Syphilis

After first becoming infected with syphilis, you may notice a few small, round, firm, painless sores. These sores will be clustered around the area of your body where the syphilis first entered. For adults, this is usually around the vagina, mouth and lips, penis, and anus. They may look like an ingrown hair, pimple, or another skin irritation. It is very easy to not notice these first sores, because they are painless and few in number. These sores eventually go away on their own, but the syphilis infection will still remain in your body.

Secondary Syphilis

The secondary stage appears while the primary stage sores are going away, or many weeks after they are healed. The secondary stage consists of a rash and sores on your mucous membranes (soft areas of the skin that secrete fluids, like the mouth, vagina, or anus). Secondary stage syphilis rash is very rough, and red or dark brown in color. Usually it is not itchy or painful, and the color can be very faint. The rash can appear on the palms of your hands, the soles of your feet, or in both places. Other symptoms of secondary stage syphilis include fever, headache and/or muscle aches, sore throat, swollen lymph glands, patches of hair loss, weight loss, and tiredness. Eventually, secondary stage symptoms will go away on their own if not treated. Some people do not have symptoms of secondary syphilis, or symptoms are very mild and unnoticeable.

Latent Syphilis

The third stage of syphilis is called the latent stage. All signs and symptoms of syphilis infection go away, even though the syphilis bacteria is still inside your body. Symptoms usually do not show up again for many years or decades. Most people with untreated syphilis do not move past the latent stage. Infections that move into the fourth stage of syphilis are very serious, and have many complications.

Late Syphilis

If continued to be left untreated, syphilis can move into its final stage, called late syphilis. At this point, syphilis begins to affect your entire body, both inside and out. Trouble moving your muscles, paralysis, numbness, internal organ damage, blindness, and dementia (a type of irreversible memory loss) are all parts of late stage syphilis.

Syphilis can be cured if treated right away. However, antibiotic treatment will not reverse any damage done by the infection. Any partner(s) of someone diagnosed with syphilis should also be evaluated and treated. Anyone who has been treated for syphilis should not have any form of sex until all syphilis sores are completely healed. Re-infection with syphilis is possible, especially if any partner(s) are not treated at the same time you are treated. Ways to protect yourself from syphilis include abstinence from oral, anal, and vaginal sex, and having a mutually monogamous sexual relationship with a partner who has tested negative. Using condoms can help reduce your risk, but will not completely eliminate all risks of getting syphilis. Sores can occur in areas not covered by condoms. Males who have sex with other males should get tested regularly for syphilis.

Trichomoniasis ^{2, 28-29}

Trichomoniasis (Trich) is caused by a certain type of parasite. A healthcare provider must perform a lab test to diagnosis trichomoniasis. Symptoms of trichomoniasis can vary from person to person, making diagnosis based on symptoms alone unreliable. About 70% of people with trichomoniasis don't have any symptoms. Anyone with trichomoniasis is contagious, whether or not they have symptoms. It may take between 5-28 days to develop any symptoms. If symptoms are present in males, they may include mild irritation or itching inside the penis, burning or itching while peeing or after ejaculation, and abnormal discharge from penis. Symptoms in females may include itching, redness, burning, or soreness around the vagina/vulva, clear, yellow, white, or green discharge from the vagina, with an unusual smell, and pain or burning while peeing. Symptoms of trichomoniasis can range from mild to severe, and can come and go with time. Without treatment, symptoms can wax and wane for months or years.

Trichomoniasis is spread through sexual contact. Unlike most STIs, trichomoniasis usually only affects the vagina and penis, and infections of the mouth, hands, or anus are rare. Older females are more likely than younger females to become infected with trichomoniasis, and females are more likely than males.

Complications due to untreated trichomoniasis are rare. Untreated trichomoniasis can make having sex very uncomfortable. As with most STIs, untreated trichomoniasis can increase your risk of spreading or getting HIV. Fortunately, trichomoniasis is easily cured with prescription medications. Be sure to ask your pharmacist about whether or not you should avoid alcohol while taking these medications – some medications used to treat trichomoniasis can cause a very unpleasant reaction if you drink alcohol. It is very important to have your partner(s) evaluated and treated by a healthcare professional to avoid passing trichomoniasis back and forth. About 1 in 5 people become re-infected with trichomoniasis within 3 months of treatment, usually because a sex partner(s) was/were not treated.

Ways to protect yourself from trichomoniasis include abstinence from oral, anal, and vaginal sex, and having a mutually monogamous sexual relationship with a partner who has tested negative. Using condoms can help reduce your risk, but will not completely eliminate all risks of getting trichomoniasis.

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CHAPTER 20: T IS FOR TAMPONS & TOXIC SHOCK SYNDROME

What is Toxic Shock Syndrome? ¹⁻⁴

Toxic Shock Syndrome (TSS) is a very rare complication of certain kinds of infections caused by staphylococcus (staph) or streptococcus (strep) bacteria. TSS can quickly become life-threatening, causing damage to the skin, organs, and even death. Someone with TSS may notice a sudden, high fever >102F, vomiting and diarrhea, dizziness or fainting, a sunburn-like red rash on the palms and soles of the feet, confusion, muscle aches or headaches, red eyes, nose, mouth, or throat. People with TSS can even have seizures.

Causes of Infection ¹⁻⁵

Even though TSS is rare, there are certain situations that can increase your risk of developing TSS. In the past, the use of superabsorbent tampons lead to many cases of TSS. Now, the manufacturers of tampons have stopped making superabsorbent products. As manufacturing rules for tampons changed, the number of TSS cases in menstruating females decreased dramatically. Despite changes in tampon production, there are still cases of TSS every year.

There are 2 reasons why tampons are linked to TSS:

1. Tampons may block bacteria from leaving the vagina, allowing them to grow and cause infection
2. The types of material used in tampons may cause small cuts or scrapes along the inside of the vagina, leading to an open wound for bacteria to enter the body and cause infection

Females should always use the smallest tampon for their menstrual flow, and should change their tampon every 4-8 hours. When possible, females should use pads instead of tampons.

Females should never use a tampon when they are not on their period.

Even people who do not use tampons can develop TSS. Men, children, and non-menstruating women can all develop TSS. Besides tampon use, other risk factors for TSS include skin infection, insect bites, burns or open wounds, recent surgery, use of contraceptive sponges or diaphragms, recent illness due to a virus, like the flu or chickenpox, or a history of TSS and/or staph or strep infections.

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CHAPTER 21: U IS FOR URINARY TRACT INFECTIONS

What is a Urinary Tract Infection? ¹⁻²

Urinary Tract Infections (UTIs), or “bladder infections”, are one of the most common bacterial infections. UTIs affect people of all ages and genders. Certain factors might make you more likely to get an UTIs. Females are at a higher risk than males because their urethra (the opening from the bladder to the outside of the body) is shorter and closer to the anus, which makes it easier for bacteria to enter and cause infection. Having a history of prior UTIs, sexual activity (especially with a new partner), very young or very old age, a reduced ability to get up and around (like after surgery, long-term illness or bedrest), changes in the natural vaginal bacteria or acidity from using spermicidal products (see, “O is for Over-The-Counter Contraceptives”) or douching can all increase your risk of getting a UTI. The symptoms of an UTI can include pain or burning while peeing, peeing often or feeling the need to pee, even with an empty bladder, a low fever (less than 101 °F), cloudy or bloody urine, and pressure, pain, or cramping in the groin or lower abdomen. These symptoms are not exclusive to UTIs – many of these symptoms could be related to some other illness or condition, such as an STI (see, “S is for Sexually Transmitted Infections”). Remember, it is always important to talk to your doctor first before trying to diagnose and treat any sort of illness on your own.

What Causes a UTI? ¹⁻²

UTI's are caused by bacteria that enter the urinary tract (urethra and bladder). UTI's are usually limited to just the bladder, but can enter other parts of the body if not treated properly or right away. An infection in the bladder may even go all the way up to the kidneys. Kidney infections are rare, but much more serious than UTIs. Sometimes, the body can take care of the infection on its own, but other times it cannot. Since bladder infections are caused by bacteria,

treatment usually requires antibiotics. The most likely cause of bladder infections is **E coli**. E coli are responsible 90% of the time for causing the very first UTI a female will ever experience in her lifetime. E coli are not the only culprits, and there's no way of knowing what bacteria are responsible without a doctor's help. If you've had a bladder infection in the past, it's likely that the same bacteria are causing infection again. Always tell your doctor about any previous bladder infections, even the ones you suspected or did not get treated.

Treatment^{1, 3-4}

Bladder infections usually need antibiotics to treat them. Unfortunately, bacteria are becoming more and more resistant to our antibiotics. This means that the bacteria are becoming tougher to kill, and the antibiotics used to treat a past UTI may not work again. Bacteria become resistant to antibiotics when they are used often, or when patients don't follow the directions or finish their antibiotics. Besides antibiotics, your doctor may prescribe a medication called phenazopyridine, or Pyridium™. This medication helps decrease the pain and discomfort you experience while peeing. This medication is also available over-the-counter as Azo™. Be warned: not all Azo™ products have phenazopyridine in them. Some have cranberry extracts, or even antifungal medications (which are not used for UTIs). Ask your pharmacist about the differences between these over-the-counter options, and which one they recommend. If your doctor has prescribed you antibiotics, you must continue to take them as directed for the entire length of treatment. Azo™ is not an antibiotic, and will not treat your UTI. Having a previous UTI puts you at an increased risk of having another UTI in the future. The best treatment strategy is to try and prevent bladder infections from happening in the first place.

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CHAPTER 22: V IS FOR VASECTOMY

What is a Vasectomy? ¹⁻⁴

A vasectomy is a surgical, permanent form of birth control for males. After having a vasectomy, males no longer ejaculate sperm during sex. Without sperm, pregnancy cannot occur. First, your doctor will numb each side of the scrotum (the sac where the testicles hang). There are several different ways to cut and block the tubes that carry sperm from the testicles to the penis. Your doctor will be able to determine which method will be best for you. There is usually little to no blood involved, and stitches are rarely needed. The entire procedure will take about 30 minutes, and healing time is very quick. There is usually no scarring. Vasectomies are very safe procedures. An infection in 1 or both testicles may happen, but this is very rare.

Because a vasectomy must be performed in a doctor's office, it could be an expensive procedure. Call your health insurance company and ask if this kind of procedure would be covered, and how much your copay may be. It can take 2-6 months before your vasectomy results in sperm-free semen. After your procedure, you should use another form of contraception until your doctor says it is no longer needed. Your doctor will be able to know if your vasectomy was a success by looking at your semen under a microscope. It is possible that sperm may appear in your semen months or years after a vasectomy. But, for every 1,000 males with a vasectomy, only 1 instance of pregnancy occurs.

Vasectomies are potentially reversible, but are still considered a "permanent" form of birth control because reversal success rates are low. Approximately 30-50% of males who have a vasectomy reversed are able to regain fertility. A reversal can take several months or a year or more.

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CHAPTER 23: W IS FOR WHAT IS SEX?

Background ¹⁻⁵

The word “sex” means different things to different people. This is because there are many ways to have sex. Not all types of sex require contraception. The following are just a few examples of how some people define “sex” – remember, it’s up to you and your partner(s) to determine what you think is “sex”, and what you’re comfortable doing. As long as all the people involved want to be involved, anyone can have sex. Sex is completely natural, and can be a very important part of a healthy personal relationship with your partner(s). Whether you like males, females, both, or someone in-between doesn’t matter; the most important thing about having sex is being ready, happy, and safe.

Types of Sex ¹⁻⁵

Hand-to-genital contact is using your hands to sexually stimulate your partner’s genitals. “Fingering” is using your hands to stimulate a female’s clitoris and vagina. A “hand job” is using your hands to stimulate a male’s penis. **Masturbation** is using your hands, fingers, or a sex-toy on your own genitals to cause yourself to orgasm.

Genital rubbing is when partners rub their genitals against one another’s. Some examples of genital rubbing include “dry humping” and “scissoring”. The word scissoring is used to describe 2 female partners who are rubbing their genitals against each other. Genital rubbing is **not** sexual penetration.

There are 3 kinds of **sexual penetration**. The first kind is penis-in-vagina sex, or “**vaginal intercourse**”. Another type of sexual penetration is penis-in-anus sex, or “**anal intercourse**”. **Oral penetration** is mouth-to-genital contact. Other names for oral sex include “giving/getting head”, “going down”, and “oral sex”. **Cunnilingus** is using your mouth to

stimulate the genitals of a female partner. Other words for cunnilingus include “eating out” and “eating pussy”. **Fellatio** is using your mouth to stimulate the genitals of a male partner. Another word for fellatio is a “blow job”. Another kind of oral sex is **analingus** – using your mouth to stimulate the anus of a partner. Analingus is also called “rimming”.

The **only** sexual activity that can result in a possible pregnancy is vaginal sex involving both a male and female who have fully-functioning reproductive organs. There is no way to get pregnant from anal sex, oral sex (even if you swallow your partner's semen), fingering, or masturbating.

There are lots of scientific words to describe sex. And, there are lots of common words to describe sex. It can get very confusing to talk about sex when there are so many different words to describe the same things. The same goes for male and female body parts – there are many different words for different body parts. To understand sex, you have to understand the words used to describe it.

An **orgasm** is the release of built-up tension in your muscles from intense sexual stimulation. Other words for an orgasm are “cumming” and “getting off”. An orgasm mostly affects the muscles in and around your reproductive organs. Your muscles will twitch, and you may start breathing harder, sweating, feeling warm, and your heart rate will increase. This feeling can last for a few seconds or even longer. Afterwards, most people feel very relaxed and happy.

Female Anatomy ⁴

An **ovary** is where a female's eggs, or sex cells, are stored. Most females have 2 ovaries, but some females may only have 1. A **fallopian tube** connects the ovaries to the uterus. An egg travels from the ovary to the uterus through the fallopian tube every month – this is called

ovulation (see, “F is for Female Reproductive Cycle & Menses). The **uterus**, also known as the “womb”, is where implantation happens (see “Z is From Zygote to Fetus). Every month the uterus lining thickens to prepare for a possible pregnancy. During months when a female does not become pregnant, the lining of the uterus sheds – this is the cause of blood loss during menses. The **cervix** acts as a “gate” between the uterus and vagina. The cervix is where many contraceptive devices and menstrual products attach to, like Intrauterine Devices (IUDs), cervical caps, and menstrual cups. The cervix is very sensitive, and it can hurt if a penis, fingers, or sex toy hits it too hard. The **vagina** is a small, muscular opening between the cervix and the outside of the body. This is where tampons are placed during menses, and where a male’s penis enters a female during sex. The **hymen** is a very thin piece of skin that stretches partway across the opening of the vagina. Whether or not a female is still a “virgin” is usually based on whether or not a female still has a hymen. However, some females are born without a hymen. Other females will tear their hymen during non-sex activities like using tampons, riding a bicycle or horse, intense exercise, or masturbating. Some females have a very stretchy hymen, which won’t tear even during sexual penetration. The tube that connects the bladder to the outside of the body is the **urethra**. The opening of the urethra is located just above the opening of the vagina. The outer flaps of skin that cover the urethra, clitoris, and vaginal opening are called **labia**. Pubic hair grows on the labia. The **clitoris** is a small, round piece of tissue located just above the urethra, within the upper labia. The clitoris has thousands of nerve endings. Stimulating the clitoris is how many females are able to have an orgasm.

Male Anatomy ⁵

The **penis** is the male reproductive organ. The penis fills with blood and becomes hard during sexual stimulation. This is called an **erection**. Both urine and semen exit the body through

the **urethra**, which runs the entire length of the penis. The penis hangs outside the body, above the scrotum. The **scrotum** is the skin sack that hangs below the penis, and holds the testicles. Sperm and the hormone testosterone (see, “H is for Hormones”) are made in the **testicles**. Most males have 2 testicles, but some medical conditions or surgeries may result in a male having only 1 testicle. Males with only 1 testicle can still have sex, and impregnate a female. Attached to each testicle inside the scrotum is an **epididymis**. This small storage area is where sperm cells are stored after they are made. The **vas deferens** is a tube that connects the epididymis to the seminal vesicle. During a vasectomy, this is the tube that is blocked (see, “V is for Vasectomy”). The **seminal vesicle** and the **prostate** both produce the fluid that a male releases during sexual stimulation. This fluid is designed to help the sperm cells travel from the male into the female. **Sperm** are the male sex cells, which travel from the testicles of a male to the egg within a female in order to “conceive” or cause a pregnancy. Sperm are found in the ejaculate, or cum, and pre-cum – the fluids that a male produces when sexually stimulated. **Pre-cum** is released in small amounts in response to sexual stimulation, usually before ejaculation. Pre-cum contains sperm. However, the amount of pre-cum released is very little, and it usually does not exit the penis with as much force as the semen released during ejaculation. When a male reaches orgasm, he ejaculates. **Ejaculation** is when stored semen is quickly released from a male’s body through the penis. Force is needed for the semen to travel through the entire length of the penis in order to reach the vagina. The release of semen from a male in response to intense sexual stimulation usually results in orgasm, but not always. **Ejaculation into a female’s vagina (without the use of any contraceptives) is the only sexual act that can cause pregnancy.** Premature ejaculation is just ejaculating before you are ready to. Many males might want to delay ejaculation in order to make sex last longer for themselves and their partner(s). Wearing condoms with special

lubricants designed to decrease sensitivity, or thinking about something not related to sex can help. Masturbating before having sex can also help prevent premature ejaculation.

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CHAPTER 24: X IS FOR SEXUAL HEALTH EXAMS

Why are Sexual Health Exams Important? ¹⁻⁹

All males and females should have regular health and wellness checks – but, what about sexual health exams? These are exams that examine your sexual health. These exams can be important ways of detecting cancer, STIs and infections, and physical or hormone changes. Many of these exams are considered “preventative” health, and are covered by most insurance companies (see, “L is for Law Review”). Some exams can even be done at home.

For Females¹⁻⁷

Breast exams are a way to check a female’s breasts, nipples, and surrounding skin for any lumps or skin changes. You can do your own self breast exam at home. Ask your healthcare provider how to do a self-breast exam. A self-breast exam is not a substitute for an exam performed by a healthcare provider. The most important part of a self-breast exam is knowing what your breasts normally look like – changes in color, size, shape, and skin texture could indicate a problem. If you notice any changes in your breasts, you should see a healthcare provider as soon as possible.

Clinical breast exams are done by a healthcare provider — often as a routine part of a pelvic exam. These breast exams are more in-depth than a self-breast exam. During your exam, your doctor may talk to you about your risks for breast cancer and what you can do to help prevent it. An abnormal finding is not always cancerous. Many less serious problems can cause breast changes. These include cysts, infections, or injuries. Females ages 20-39 should have a clinical breast exam at least every 1-3 years.

A pelvic exam is a physical exam of the vagina, uterus, and ovaries. This is done to check these tissues for any changes or abnormalities. To widen the vagina for the exam, your doctor

will use a plastic or metal device called a speculum. This speculum widens the vagina enough for the doctor to palpate – or exam by touch – the uterine tissue. A pelvic exam shouldn't hurt, and is very quick. Then, your doctor will use a small, plastic brush to collect skin cells from your cervix. This is called a Pap test, or Pap smear. Pap tests are an important part of a pelvic exam, because they can find cancer or pre-cancerous cells. Pap tests only screen for cervical cancer. They do **not** screen for ovarian, uterine, vaginal, or vulvar cancers. Always tell your doctor about any changes you notice with your body. Your doctor may also test your sample for Human Papilloma Virus (HPV). Both Pap and HPV tests can be done on the same sample, so only 1 sample is needed per visit. HPV is one of the most common causes of abnormal tissues and reproductive cancers in women (see, "G is for Gardasil™").

Unless you have a specific medical problem or reason to have a pelvic exam at an earlier age, you should have your first pelvic exam and Pap test when you turn 21 years old. After your first pelvic exam, your health care provider will tell you how often you should have gynecological care, including pelvic exams and Pap tests. How often you need exams will depend on your medical history and personal health needs. Your healthcare provider will give you a pelvic exam before prescribing certain kinds of contraceptives like Intrauterine Devices (IUDs) and diaphragms or cervical caps.

Both the American Cancer Society (ACS) and the U.S. Preventive Services Task Force (USPSTF) have changed their screening guidelines to reflect new research on Pap tests. Females younger than 21 years old do not need Pap tests. This is because HPV infections and abnormal cell changes in the cervix in females younger than 21 years old will usually go away on their own (usually within 2 years). Females age 21-29 years old should get a Pap test every 3 years. This replaces the previous guideline that females get tested yearly. When Pap tests are done

yearly, abnormal changes may be found that often go away on their own. In most cases, cervical cancer is very slow-growing, and annual testing for precancerous tissues isn't needed. In fact, yearly screening for cervical abnormalities yields only a very small increase in cancer interventions, but leads to a larger number of unnecessary procedures and treatments, which can be expensive and worrisome. HPV testing is not recommended for routine screening of females age 21-29 years old, because most females will have HPV in their 20s that goes away.

It's important to remember that these changes to screening guidelines don't mean you shouldn't see your doctor every year. All females should still continue to see their doctor for a yearly sexual health appointment. But, instead of spending time during your appointment getting a pelvic exam and Pap test, you can spend time with your doctor discussing other important topics, like family planning and contraception, healthy diet, and STI or infection concerns and prevention.

For Males⁸⁻⁹

A testicular exam is an exam of the testicles and surrounding tissues to check for changes in skin texture, lumps, or other changes. These changes may be related to testicular cancer. Young males have the highest risk of testicular cancer — most cases occur in males ages 15–39 years old. But, testicular cancer is not very common, and is very treatable no matter when you are diagnosed. And, not all lumps mean cancer. Other causes of testicular changes include infections, cysts, injury, or hernia. Ask your healthcare provider how to do your own testicular self-exam at home.

All males should have their testicles examined by a health care provider at some point in their lifetime. But, doctors are not sure how often these exams need to be done, and who exactly needs them. Based on your overall health and any risk factors you may have for testicular cancer,

your doctor will decide how often they need to exam you. Testicular self-exams haven't been proven to reduce the risk of dying from testicular cancer. The U.S. Preventive Services Task Force doesn't recommend testicular self-exams because a benefit has never been proven. The American Cancer Society recommends discussing cancer-related health issues, such as testicular self-exams, with your doctor during routine checkups.

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CHAPTER 25: Y IS FOR YEAST INFECTIONS

What is Yeast? ¹⁻²

“Yeast” is another term for a type of microscopic fungus. The scientific name for the fungi that cause yeast infections is **Candida**. Candida is important to humans, and is normally present throughout the gut, vagina, mouth, and on the skin. Normally, other kinds of bacteria in and on your body help keep the Candida population under control. Certain conditions or medications may allow this yeast to overpopulate and cause infection. These factors include having problems with processing sugar, such as diabetes, pre-diabetes, or “sugar-disease”, taking medications that affect the normal bacteria population, acidity, and secretions of the vagina, like **broad-spectrum** antibiotics (see, “Q is for Questions & Resources” for more information), and hormone-containing birth control, a weakened immune system, moisture or irritation, douching, and taking baths. Sometimes, yeast infections can occur in females who have recently started having sex with a new partner. No matter your or your partner(s) gender(s), yeast infections can be spread between partners through contact with an infected area.

Yeast Infections ¹⁻²

Genital, or vulvovaginal candidiasis (VVC), or "yeast infection," occurs when there are too many yeast in the vagina. This kind of infection is very common -- nearly 75% of all adult females have had at least one yeast infection in their lifetime. Yeast infections that affect the vagina may cause itching, burning, and sometimes a "cottage cheese-like" vaginal discharge. Yeast infections rarely affect males, but males may notice an itchy rash on the penis. The symptoms of a yeast infection are very similar to many other genital infections, so it is important to see your doctor if you have any of these symptoms. Your doctor will have to examine you to determine what is causing your symptoms, as well as take samples of any discharge from the

infected area. Candida can also cause yeast infections on your scalp, nails, groin, fingers and toes, and diaper rash in infants. Since Candida can cause infection in all of these areas, it's best to get seen by a doctor right away, before it spreads to another part of your body, or to someone else. You can always ask your doctor or pharmacist if any of your medications or medical conditions increases your risk of getting a yeast infection.

Treatment¹⁻²

There are many kinds of antifungal medications available to treat vaginal yeast infections. Creams, gels, and vaginal suppositories (a solid form of medication to insert in the vagina with a tampon-like applicator) are available over-the-counter without a prescription. Before you use any medications or products, make sure you talk to a doctor first. Remember, the symptoms of a yeast infection could actually be something else, and only a doctor can tell the difference. Using yeast infection products when you don't have a yeast infection could lead to more serious, harder-to-treat yeast infections in the future. Your doctor may tell you to pick up an over-the-counter medication from the pharmacy, or they may write you a prescription. Be sure to talk to a pharmacist to make sure you are getting the right product. For mild to moderate yeast infections, a one-day course of antifungal medication is usually enough. For more serious infections, several days of treatment may be needed. Creams, gels, and vaginal suppository products can all leak from the vagina. You should use these products right before you go to sleep, since your body will be horizontal throughout the night, to help prevent this. You could also wear a pad (not a tampon or menstrual cup) to help catch any leakage (see, "F is for Female Reproductive Cycle & Menses"). Some products also have a small tube of topical antifungal medication to use for any infection around the outside of the vagina, if needed.

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CHAPTER 26: Z IS FOR ZYGOTE TO FETUS: WHAT IS PREGNANCY?

Pregnancy: A Biologic Process¹⁻⁶

Pregnancy is the process of how humans create more humans. A typical pregnancy for a human lasts 40 weeks, or about 9 months. The 40 weeks begins on the female's first day of her last menstrual cycle, up until her infant's birth. However, the **gestational** age of an embryo begins with fertilization, which occurs about 2 weeks prior to the first day of missed menstruation. Human pregnancies are divided into 3 sections, called trimesters. Each trimester is 90 days, or 3 months.

There are many steps that must happen in the right order, and at the right time, for pregnancy to happen. Pregnancy is such a complicated biological process that only about 50% of embryos ever survive it. The majority of embryos are lost during the first 2 weeks after fertilization; at this point, most females never even knew they were pregnant. Because of the many different steps involved in pregnancy, there are many ways to interrupt or prevent it from happening.

Ovulation

Before pregnancy can possibly happen, a female must ovulate –release an egg from her ovary (see, “F is for Female Reproductive Cycle & Menses”). This egg must then make its way into the fallopian tube, and later into the uterus. Without ovulation, there is no female egg to be fertilized, and pregnancy can't happen.

Fertilization

Fertilization is when a male sperm joins with a female egg. This combined cell is now called a **zygote**. Several things must happen at the same time in order for fertilization to occur. A

male must ejaculate healthy sperm into a female's vagina. Then, the sperm must make their way through the cervix, the uterus, and into the fallopian tube where the female's egg is located (if she has ovulated). The thickness of a female's cervical mucus, the acidity of her vagina and uterus, the makeup of a male's semen, and the potency of it (how many sperm are in his semen) can all affect the fertilization process.

Implantation

After the zygote is formed, it must now travel from the fallopian tube to the uterus – this process takes about 2 days. Once in the uterus, the zygote grows large enough for implantation, which takes another 2-3 days. At this point, the zygote is large enough to begin producing high enough levels of human chorionic gonadotropin (hCG) hormone. This hormone is what is detected by pregnancy tests. By day 10, the zygote has fully implanted itself into the uterus, and is growing thanks to nutrients it receives from the female. The zygote is now called an **embryo**. The uterine tissue must undergo many changes before it is a healthy surface for the zygote to implant onto.

Placental Development

Shortly after implantation, the embryo begins to form the **placenta**. The placenta is a tissue that connects the female and embryo together, allowing nutrients and waste products to travel between them. The placenta continues to produce progesterone. Progesterone is what maintains pregnancy; the “abortion pill” is a progesterone blocker, which is how it causes abortion (see, “A is for Abortion”).

Continued Embryo Development

Approximately 2-8 weeks after the embryo forms, it is now considered a **fetus**. Body structures formed during the embryonic stage now continue to grow and mature. The fetus will continue to grow and develop for the next 32 weeks – at which point, labor and delivery begins.

Resources

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CONCLUDING REMARKS

The Importance of Sexual Education

No matter your age, gender, sexuality, relationship or health status, it is your **personal** responsibility to take care of your own health – physical, emotional, mental, and sexual.

Understanding what sex is and how to safely participate are only small parts of what it means to have “safe sex”. Understanding how your body works, how contraceptives work, and how to handle what can go wrong are all important parts of having safe sex. By educating yourself on important topics like these, and many others, you can stay safe while enjoying sex.

Who Would Have Thought?

While working as a pharmacy intern, I've heard this statement more times than I can count. My patients are usually always surprised by the knowledge my pharmacists and I have about over-the-counter products and devices. Not only are pharmacists responsible for knowing about the products in the pharmacy, we're also responsible for knowing about the products in front of the pharmacy. With that being said, if you think your questions are embarrassing or awkward, fear not; it's our job to help you, no matter what the situation is.