


Introduction and Anatomy Day 1

CASE STUDY

- ✗ Read case study to class (Flash pg4, 5)
- ✗ Journal: What could have been done differently in this case study? How would you respond to Rob if you were the teacher?

Language Levels for topics:


1. Childish  "#1, #2"
2. gutter :(
3. social
- ★4. medical

<u>Social:</u>	<u>Medical:</u>
"making love or doing it"	"sex" or "sexual intercourse"
"her time of the month"	"period"
"boobs"	"breasts"
"balls"	"testicles"

Puberty for a girl :

Females—usually starts between 11 – 13 and up to 16 years of age

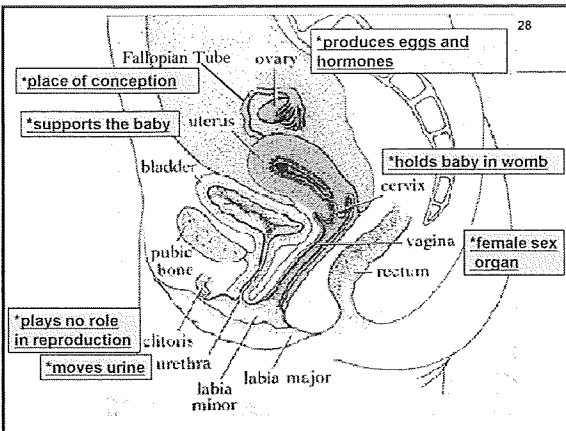
1. growth and filling out of breasts; larger rounder hips and buttocks
2. growth of hair
3. oilier skin and hair + appearance of pimples or acne
4. begins to have her period
5. becomes more aware of the opposite sex
6. becomes more conscious of appearance



But, puberty will pass. Suddenly at about age 15, it all evens out and everybody's back at the same stage of life again!

Purpose: To produce and nourish a mature egg from fertilization to birth

FEMALE REPRODUCTIVE SYSTEM



1. OVARIES

- × Gonads of the Female Reproductive System
- × Releases (on average) one mature egg each month.
- × A female is born with approximately 400,000 immature ova
- × Eggs do not begin to mature until puberty

2. FALLOPIAN TUBES

- × Part of the female reproductive tract
- × 3-4 inch tube extends from the ovary into the uterus
- × The mature egg travels from the ovary to uterus via these tubes
- × Muscular contractions move egg along
- × Fertilization occurs here!!
- × Ectopic Pregnancy

3. UTERUS

- × The Womb
- × Pear-shaped organ that holds and nourishes the growing embryo and fetus
- × ENDOMETRIUM: inner wall of the uterus, where the fertilized egg attaches the wall. The endometrium forms the placenta in which the baby is housed
- × Endometrium is shed during menstruation

4. CERVIX

- × The lower end of the uterus that protrudes into the vagina
- × Known as the neck of the uterus
- × Made of thick muscle and the opening is covered with a thick mucus
- × EFFACEMENT: During childbirth, the muscle of the cervix thins out and the mucus disappears
- × Cervix must dilate to 10 cm. for birth to happen

5. VAGINA

- × The birth canal
- × Extends from the base of the uterus and cervix, to the outer genitals of the female
- × The organ for sexual intercourse
- × Very effective self-cleaning organism

6 & 7 LABIA MAJORA/MENORA

- × Labia Majora: the large, outer 'lips' at the opening of the vagina
- × Labia Menora: the smaller, inner 'lips' at the opening of the vagina
- × Serve 2 functions
 - + Allow the penis to enter for fertilization to occur
 - + Protect the inner reproductive systems from infection and disease

8. CLITORIS

- × A sensory organ located anterior to the urethra-equivalent to the tip of the penis in males
- × Plays no role in actual reproduction
- × Egg can still be fertilized without arousing the clitoris (orgasm does not need to occur for pregnancy to occur)

9. URETHRA

- × The tube that carries urine from the bladder to the outside of the body. Located anterior to the vagina

10. BLADDER

- × A hollow, muscular organ that stores urine until it is ready to be excreted from the body

THE MALE REPRODUCTIVE SYSTEM

Puberty for a boy and boy issues: 4

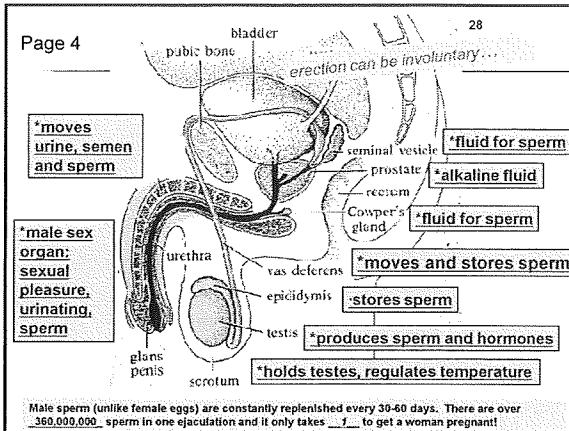
Males—usually starts between 13 - 15, up to 16 years old:

take a shower daily + use deod.!!

1. grows taller and more muscular
2. growth of body hair
3. oilier skin and hair + appearance of pimples or acne
4. perspires a great deal
5. change in voice—lower (cracking or breaking)
6. becomes more aware of the opposite sex

The Adam's apple is more pronounced in human males because male sex hormone during puberty influences its growth.





PENIS (1)

- × the function of the penis is to transfer seminal fluid to the female reproductive system.

URETHRA (2)

- × tube that urine leaves the body, as well as the tube that semen leaves the body.

TESTES (3)

- × two oval structures that are approximately 1 ½ inches long and about 1 inch wide
- × sperm is produced here
- × testosterone, the male hormone, is produced here
- × testes are external in humans due to body temperature being too high

SCROTUM (4)

- × bag-like structure of skin and muscle that surrounds the testes
 - + primary job is to regulate temperature of testes, to ensure sperm production
 - + If exposed to cold, the scrotum will shrink, drawing the testes closer into the abdomen
 - + If exposed to heat, the scrotum will loosen, so that the testes are away from core body heat

EPIDIDYMIS(5)

- × located on the back side of each testes. A coiled tube about 20 feet long
 - + this is where sperm are allowed time to mature
 - + they will now have the ability to swim

VAS DEFERENS (6)

- × once mature, the sperm enter this tube for storage
 - + the tube is approximately 12 inches long
 - + during ejaculation, the muscular walls of the vas deferens propels the sperm forward, and then leaving the body
 - + Ejaculation- means to discharge suddenly. Estimated the sperm leave the body at about 200 feet per second.

PROSTATE GLAND (7)

- × about 1 ½ inches long, located below the bladder
 - + during ejaculation, this gland adds a milky fluid to the sperm.
 - + This fluid contains substance that 'activate' the sperm, and cause them to wave their flagella
 - + Makes up about 1/3 of the volume of the semen

SEMINAL VESICLES (8)

- × attached to the back wall of the bladder, about 2 ½ inches long
 - + add a mucus-like fluid to the sperm
 - + the fluid is full of proteins and sugar, to ensure the survival of the sperm until fertilization occurs

COWPER'S GLAND(9)

- × two pea-sized glands
 - + They produce pre-ejaculate- a clear fluid that lubricates the urethra for ejaculation, and to clean out any urine or foreign bodies found in the urethra

CAVERNOUS TISSUE (10)

- × Three cylindrical structures made of spongy tissue
- × when this tissue fills with blood, the penis becomes stiff (or erect)

GENDER IDENTITY

- × Gender Identity: how a person feels on the inside, the person's inner sense of being male, female, both or neither.
- × Gender Expression: how a person walks, talks, dresses or acts.
 - + If a person doesn't act like society expects a boy or girl to act, they may consider themselves transgender.

GENDER IDENTITY

- ✘ **Sexual Orientation:** refers to who a person likes...the genders of the people they feel most sexually or romantically attracted to.
- ✘ **Heterosexual:** People primarily attracted to people of another gender.
- ✘ **Gay/Lesbian:** People are primarily attracted to people of their own gender.
- ✘ **Bisexual:** People attracted to people of more than one gender.

**Conception-Birth
Day 2 & 3**

Slide 34 of 21

THE BEGINNING OF THE LIFE CYCLE

- Once a couple has decided to start a family, they may try to conceive, or get pregnant.
- In a fertile woman's body, about once a month an egg enters one of the fallopian tubes and begins its journey to the uterus.
- If the egg is on its way to the uterus, a sperm may fertilize it. This moment of fertilization is also called conception.

End of Slide

Slide 35 of 21

The Beginning of the Life Cycle

① **FERTILIZATION**

- Only a few hundred sperm of the hundreds of millions that enter the vagina usually make it to the egg, and only one can fertilize it.
- In the first week after fertilization, the fertilized egg undergoes many cell divisions and travels to the uterus.

End of Slide

Slide 36 of 21

The Beginning of the Life Cycle

② **THE ZYGOTE**

- The united egg and sperm is called a zygote (ZY goht).
- Within 36 hours, while the zygote is still traveling through the fallopian tube, it begins to divide.

End of Slide

Slide 37 of 21

The Beginning of the Life Cycle

③ CELL DIVISION

- The original cell divides to make two cells.
- The two-celled embryo divides into four cells, and so on, until the embryo is made up of dozens of cells.

End of Slide

Slide 38 of 21

The Beginning of the Life Cycle

④ THE BLASTOCYST

- From the two-cell stage until about nine weeks after fertilization, the growing structure is called an **embryo** (EM bree oh).
- About five days after fertilization, the structure, called a **blastocyst** (BLAS tuh sist), is no longer a solid mass of cells, but a sphere of cells surrounding a hollow center.

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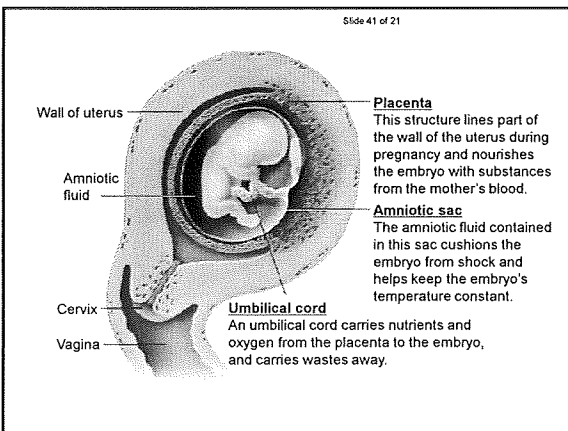
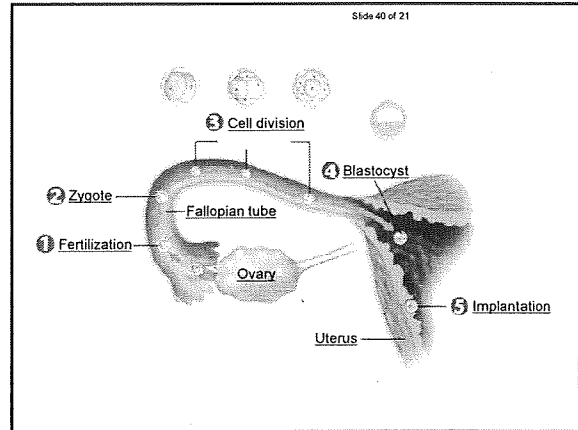
Slide 39 of 21

The Beginning of the Life Cycle

⑤ IMPLANTATION

- Once the blastocyst forms, it begins to attach itself to the wall of the uterus.
- The process of attachment is called implantation.

End of Slide



Slide 42 of 21

DEVELOPMENT IN THE UTERUS

- While the embryo grows, several other structures also develop.
- These structures—the amniotic sac, placenta, and umbilical cord—protect and nourish the developing embryo, and later the fetus.

End of Slide

Slide 43 of 21

AMNIOTIC SAC

- Soon after implantation, a fluid-filled bag of thin tissue called the **amniotic sac** (am nee AHT ik) develops around the embryo.
- Inside the sac, the embryo floats in amniotic fluid.

End of Slide

Slide 44 of 21

PLACENTA

- The attachment holding the embryo to the wall of the uterus develops into a structure called the **placenta**.
- Within the placenta, oxygen and nutrients move from the mother's blood into tiny blood vessels that lead to the embryo.

End of Slide

Slide 45 of 21

UMBILICAL CORD

- About 25 days after fertilization, a cordlike structure called the **umbilical cord** (UM BIL ih kul) develops between the embryo and the placenta.
- Blood vessels in the umbilical cord carry nutrients and oxygen from the placenta to the embryo and wastes from the embryo to the placenta.

End of Slide

Slide 46 of 21

THE GROWING EMBRYO

- During the first two months of development, the major body systems and organs start to form in the embryo.
- By the end of eight weeks, the embryo is about an inch long and has **recognizable** external features.

End of Slide

Slide 47 of 21

THE FETUS

- From the third month until birth, the developing human is called a **fetus**.
- During the third to sixth month, the fetus begins to move and kick.
- By the end of the ninth month, the fetus is ready to be born.

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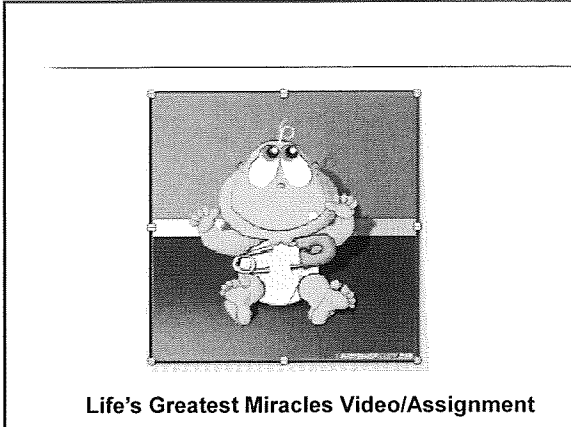
Slide 48 of 21



▲ Fetus at 3 months

▼ Fetus at 8 months





BOOK WORK

- × Read pages 492-496 and 498-503
- × Cornell Notes, include important information, vocab and review answer review questions

Contraceptives
Day 6

Birth Control Choices:

Less than \$ per 100	Vasectomy	Female Sterilization	IUD	Implant		
2-8 per 100	Shot	Pill	Ring	Patch		
10-25 per 100	Male Condom	Diaphragm	Twirlin Condom	Condom Cap	Sponge	Fertility Awareness Based Methods
About 20 per 100	Withdrawal	Spermicide				

Page 16

METHODS THAT HAVE PROVEN TO BE 100% EFFECTIVE...

abstinence

Only 1 method:

*** abstinence ***

100% effective

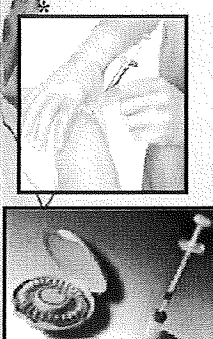
abstinence

*** THE PILL (hormonal)***

- one *pill* is taken every day.
- first 21 pills have a combination of synthetic *estrogen and/or progesterone hormones*.
- stops ovulation*, preventing the ovaries from releasing eggs, and thus preventing fertilization
- changes uterus lining so won't accept fertilized egg
- thickens cervical mucus*, harder for sperm to enter uterus.

No protection against STIs!

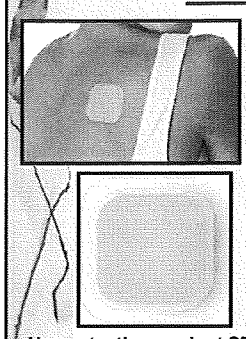
*** DEPO-PROVERA SHOT (hormonal)**



- a **hormone injection** - lasts for 3 months to prevent pregnancy
- contains **synthetic progesterone** and no estrogen
- stops the ovaries from releasing eggs
- causes the **cervical mucus to thicken** and **changes the uterine lining**, making it harder for sperm to enter or survive in the uterus and for egg to implant

No protection against STIs!

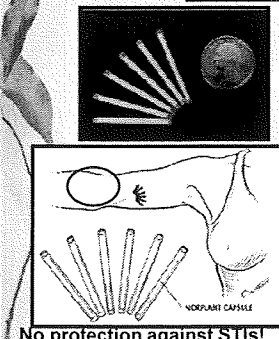
*** THE PATCH (hormonal) ***



- applied to the **abdomen, buttocks, upper arm, or upper torso**
- is **changed each week** (3 weeks on, 1 week off)
- **stops ovulation**, prevents ovaries from releasing eggs, and thus preventing fertilization.
- **thickens cervical mucus**, makes it harder for sperm to enter the uterus and for egg to implant

No protection against STIs!

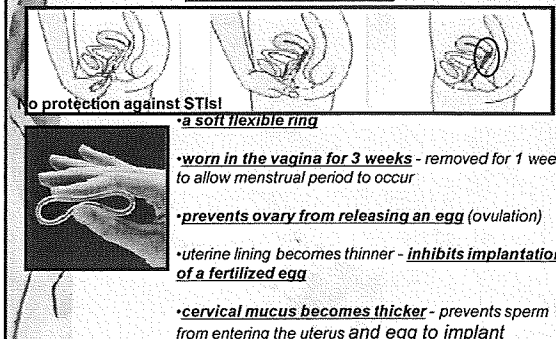
*** IMPLANTS (hormonal)***



- tiny capsules of artificial hormones **put under the skin of arm** by a clinician.
- **slowly release hormones** into the bloodstream.
- **stops ovulation**, preventing the ovaries from releasing eggs, and thus preventing fertilization.
- **thickens cervical mucus**, making it harder for sperm to enter the uterus and for egg to implant.

No protection against STIs!

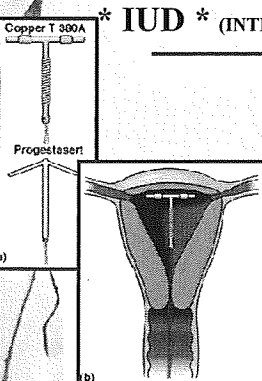
*** NUVA RING (hormonal) ***



No protection against STIs!

- a **soft flexible ring**
- **worn in the vagina for 3 weeks** - removed for 1 week to allow menstrual period to occur
- prevents **ovary from releasing an egg** (ovulation)
- uterine lining becomes thinner - **inhibits implantation** of a fertilized egg
- **cervical mucus becomes thicker** - prevents sperm from entering the uterus and egg to implant

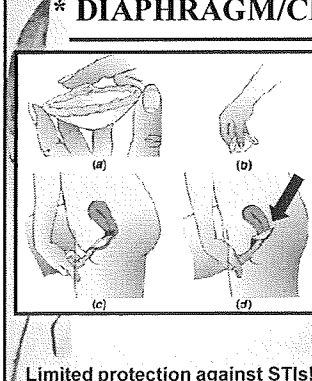
*** IUD * (INTRAUTERINE DEVICE)**



- made from **plastic or copper** - previously known as 'the coil'
- **placed quite easily into the uterus** (womb) by a trained doctor or nurse
- **stops the egg and sperm from meeting**
- may also **prevent the fertilized egg from attaching to the lining of the uterus** - copper also **kills sperm**

No protection against STIs!

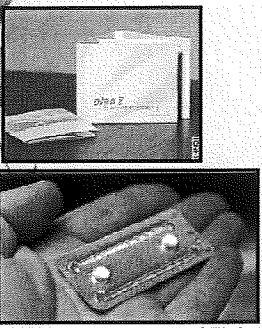
*** DIAPHRAGM/CERVICAL CAP ***



- **thin rubber dome** with a springy and flexible rim
- inserted into the vagina, **fits over the cervix** and is held in place by vaginal muscles
- A diaphragm holds **spermicide** in place over the cervix - kills sperm, preventing fertilization
- **After intercourse**, it should be left in place for 6-8 hours

Limited protection against STIs!

*** MORNING AFTER PILL (hormonal)***



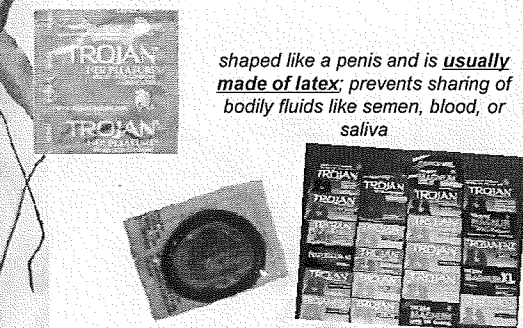
1. ovulation is inhibited - the egg not released; or

2. normal menstrual cycle is altered, delaying ovulation; or

3. can irritate the lining of the uterus so that if the first and second actions fail, and the woman does become pregnant, the fertilized egg cannot attach to the lining of the uterus.

No protection against STIs!


*** MALE CONDOM (barrier)***



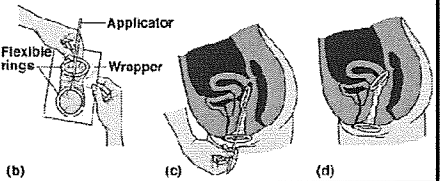
shaped like a penis and is usually made of latex; prevents sharing of bodily fluids like semen, blood, or saliva

*** FEMALE CONDOM (barrier)***

a thin, loose-fitting and flexible plastic tube worn inside the vagina; prevents sharing of bodily fluids like semen, blood, or saliva

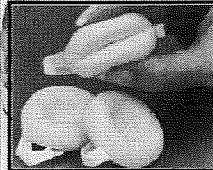


Using the Condom for Women



(b) (c) (d)

*** SPONGE ***



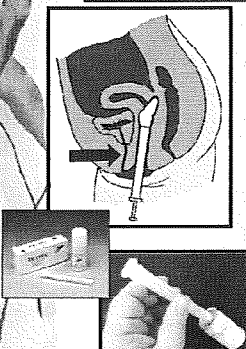
• soft, disk-shaped device made from polyurethane foam

• fits over the opening of a woman's uterus (cervix) to block and absorb semen

• contains spermicide – kills sperm

No protection against STIs!

*** CONTRACEPTIVE FOAM ***



• vaginal spermicide

• placed into the woman's vagina using an applicator


• kills or destroys sperm

and

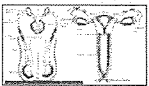
• prevents sperm from reaching the egg by blocking the opening to the cervical canal

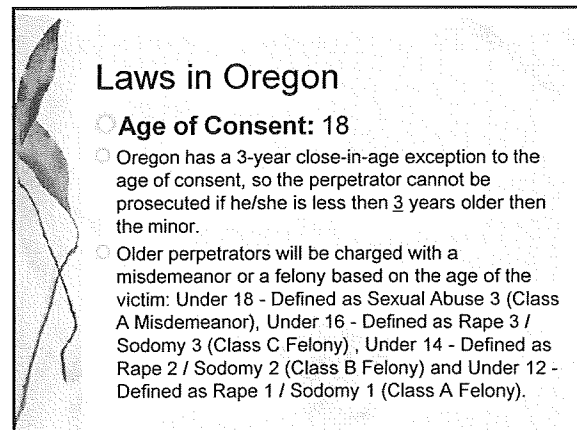
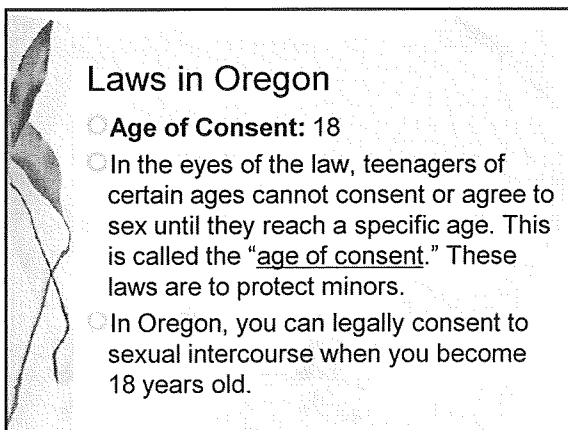
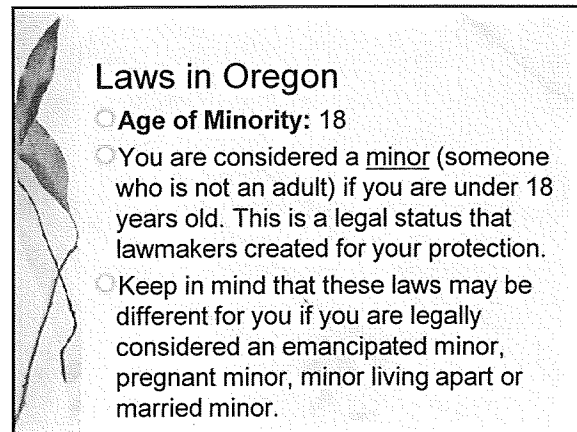
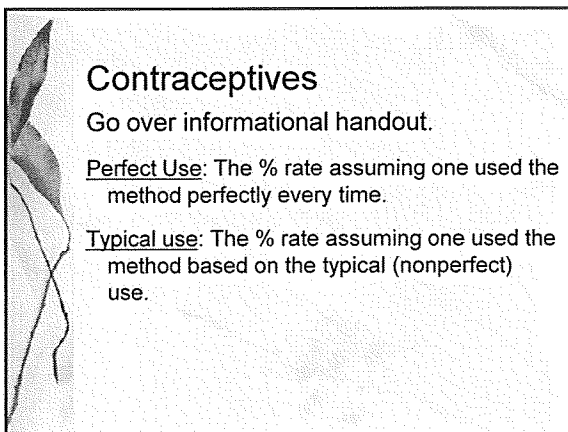
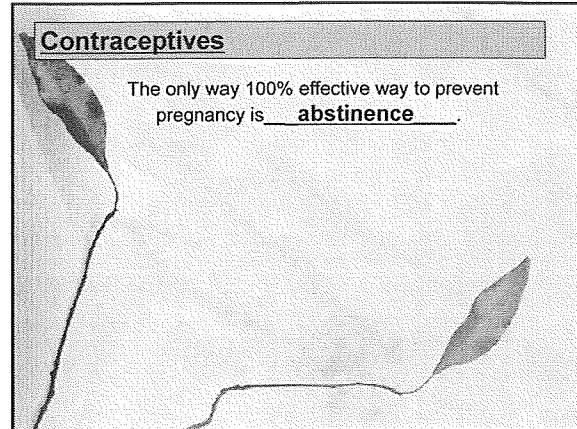
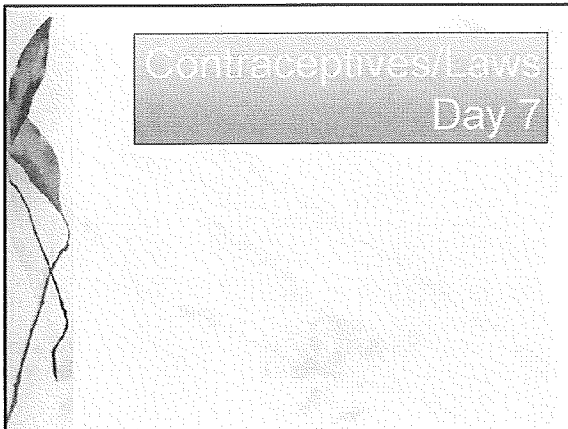
No protection against STIs!

Other Less Effective Methods:



- ***Family Planning/Fertility Awareness**
- ***Withdrawal (pull out before ejaculation)**
- ***Vasectomy and Tubal Ligation (99%)**





Laws in Oregon

○ Statutory Rape

- Third-degree rape to have sexual intercourse with a person under age 16. Defense that the offender was less than three years older than the victim at the time of the offense. Up to five years in prison.
- Second-degree rape to have sexual intercourse with a person under age 14. Defense that the offender was less than three years older than the victim at the time of the offense. Up to 10 years in prison.
- First-degree rape to have sexual intercourse with a person under age 12. Up to 20 years in prison.

Teen Rights in Oregon

○ LGBTQ Rights

- Public schools in your state have a Safe Schools Law in effect, which is a statewide anti-harassment and/or nondiscrimination law that includes the categories of sexual orientation and gender identity.
- There are statewide anti-bullying laws to protect students based on sexual orientation and gender identity.
- There are statewide anti-discrimination laws, which include sexual orientation and gender identity. State hate crimes laws also provide protections for sexual orientation but not gender identity.

Teen Rights in Oregon

○ HIV / AIDS Testing

- You don't need permission from your parent or guardian to get tested for sexually transmitted diseases (STDs) and HIV, or to consent to treatment in your state.
- If you are a minor, it is important for you to ask questions about confidentiality when you call to make your appointment.
- Oregon offers both anonymous and confidential HIV testing. This means that if you get tested for HIV, you can choose to either have your results confidentially reported to the health department using your name, or have your results anonymously reported to the health department using a number code, not your name.

Teen Rights in Oregon


- **Condoms:** You can buy condoms, and you do not have to be a certain age to buy them. Teens of any age can buy condoms from a drugstore, pharmacy, grocery store, or even online. You can get condoms for free or at a reduced cost from health clinics.
- **Birth Control:** All minors are allowed to get a prescription for birth control without a parent's permission. However, a doctor may (but is not required to) inform your parents/guardian.
- **Emergency Contraception:** People of any age can buy Plan B One-Step without a prescription over the counter at a local pharmacy. Next Choice, Next Choice One Dose, My Way and Levonorgestrel are approved for sale without a prescription to those who are 17 and older from a pharmacist. If you are 16 or younger, you will need a prescription for Next Choice, Next Choice One Dose, My Way and Levonorgestrel. The EC pill ella is only available with a prescription regardless of age.
- **Pregnancy:** You do not need a prescription from a doctor or health care provider to get a pregnancy test. You can purchase a pregnancy test from a pharmacy, grocery store, or online.

STIs/AIDS
Day 9

Sexually Transmitted Infections

The surest way to prevent STDs is abstinence. However, be aware some STIs can be contracted through the mouth, open sores, needle sharing, blood transfusions, from mother to infant in the womb or during birth, and through contact without sex.

C. Pathogens that cause STIs usually need a warm, dark, moist place to grow and multiply. These conditions are provided by the following 6 mucus membranes:



THESE ARE...

1. penis + vagina
2. Anus
3. nose (touch S.T.I. open sore + touch hand to your nose, it'll transfer infection.)
4. Eyes

you can get an S.T.I. in your mouth from oral sex!
5. mouth
6. Cuts

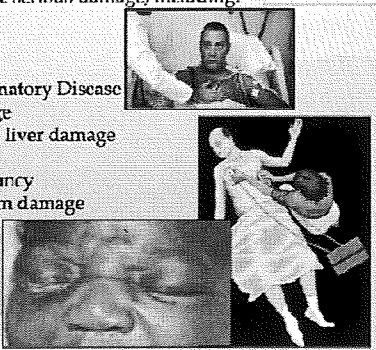
D. S.T.I.s can be passed from:

- penis to vagina
- penis to anus
- oral to genital
- sore to other mucus membrane (hand to eye, etc.)
- blood to mucus membrane (open cut, or through a dirty needle, etc.)
- mom to baby (through the placenta during pregnancy, during delivery, or through breast milk)

SEX IS A BIG DEAL

S.T.I.s can cause serious damage, including:

- cancer
- sterility
- Pelvic Inflammatory Disease
- kidney damage
- heart damage, liver damage
- Blindness
- ectopic pregnancy
- nervous system damage
- brain damage
- mental illness
- death...



Show S.T.I. video

STI's in Review

<u>Bacterial</u>	<u>Viral</u>	<u>Insects</u>
<p><i>Can be <u>cured</u> with little damage to the body; if caught early.</i></p> <ul style="list-style-type: none"> •Chlamydia •Gonorrhea •Syphilis 	<p><i>Can NEVER be <u>cured</u>.</i></p> <ul style="list-style-type: none"> •Genital Warts •Herpes •Hepatitis B/C •HIV/AIDS 	<p><i>Can be <u>cured</u> with little damage to the body; if caught early</i></p> <ul style="list-style-type: none"> •Scabies •Pubic Lice ("Crabs")


E. Many S.T.I.s are easily curable. **Some have no cure!** It is important to know the symptoms which indicate a person may have an S.T.I. Never ignore these symptoms!!

7 symptoms of S.T.I.s are:

1. <u>warts</u>	→	5. <u>discharge</u>
2. <u>bumps</u>	→	6. <u>pain when urinating</u>
3. <u>rash</u>		7. <u>sores</u>
4. <u>itching</u>		


3 things to do if you suspect you may have an STI:

1. stop having sex
2. go see a doctor
3. tell your partner(s)



EASILY CURABLE:

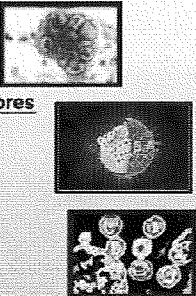
1. **Chlamydia:**
-organism: bacteria
-symptoms: male-discharge and burning
female-probably none
2. **Gonorrhea**
-organism: bacteria
-symptoms: same as above
3. **Syphilis**
-organism: bacteria
-symptoms: painless sore



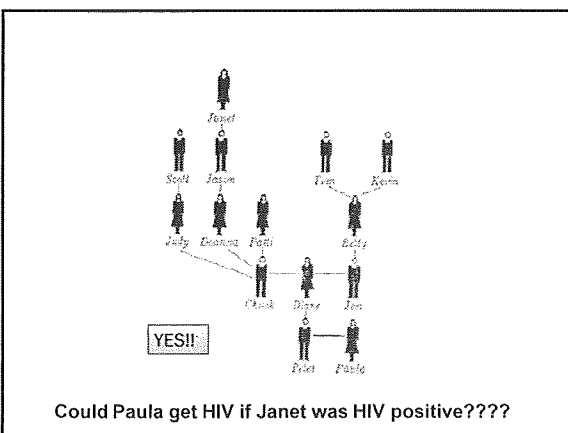
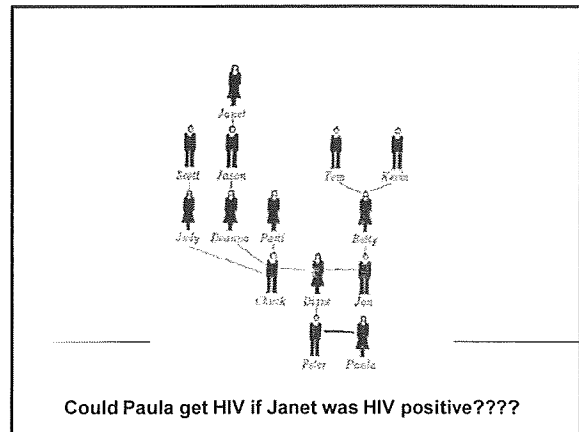
Page 8

NO CURE NO CURE: NO CURE: NO CURE:

4. **Genital Herpes**
-organism: virus
-symptoms: painful blisters and sores
5. **Genital Warts**
-organism: virus
-symptoms: warts
6. **HIV/AIDS**
-organism: virus
-symptoms: fever, pneumonia, cancers



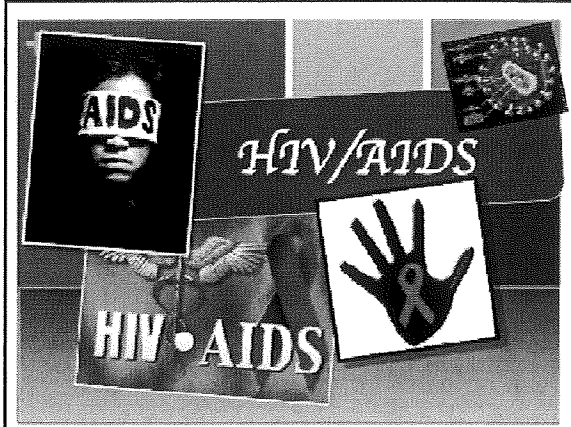
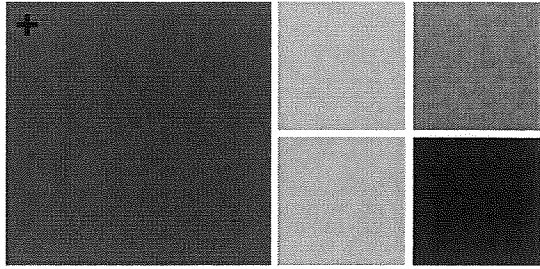
Page 8



SEXUAL EXPOSURE CHART
(If every person has only the same number of partners as you)

Number of Sexual Partners	Number of People Exposed to
1	1
2	3
3	7
4	15
5	31
6	63
7	127
8	255
9	511
10	1023
11	2047
12	4095

If you had sex with 12 people and they each had had sex with 12 people, you're exposed to over 4,000 possible infections...

HIV INFECTION

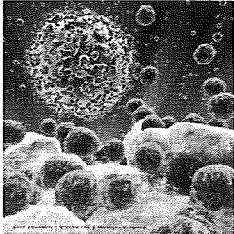
HIV is a virus that attacks the body's immune system.

LYMPHOCYTES




- White blood cells made in bone marrow
- Human body contains billions found in blood, spleen, lymph nodes, appendix, and tonsils.
- Fight disease causing organisms (pathogens)
- Two types of lymphocytes
 - B cells
 - T cells

T cells and B cells

- T-helper cells, a type of cell that stimulates B cells to produce antibodies.
- Antibodies are proteins that help destroy pathogens that enter the body.
- What makes HIV unique is that it attacks the T cells



HIV

1. HIV enters the bloodstream 
2. HIV enters cells including T-helper cells 
3. HIV reproduces its genetic material 
4. More T-helper cells become infected

HIV AND AIDS

- Decrease in T-helper cells reduces the ability of the immune system to fight pathogens
- The body is now vulnerable to illnesses.

Acquired Immune Deficiency Syndrome

OTHER STATISTICS

- Of the estimated number of diagnoses of AIDS through December 2007, patients' ages at time of diagnosis were distributed as follows:

■ Age#	Cumulative AIDS Cases'
Under 13:	9,300
Ages 13 to 14:	839
Ages 15 to 24:	35,460
Ages 25 to 34:	301,278
Ages 35 to 44:	347,860
Ages 45 to 54:	138,386
Ages 55 to 64:	40,584
Ages 65 or older:	12,868

• Information for presentation: *Diabetes Health & Guide to Wellness* and CDC

OTHER STATISTICS

- Estimated numbers of diagnoses of AIDS through December 2007, by race or ethnicity:

■ Race or Ethnicity # of Cumulative AIDS Cases

White, not Hispanic	364,458
Black, not Hispanic	347,491
Hispanic	163,940
Asian/Pacific Islander	6,924
American Indian/Alaska Native	2,875
Unknown or multiple race	887