

Life Begins

Outline

Grade: 5

Time: 90 minutes

Format Available: In-House, Outreach, Distance Learning, E-Learning

Content

I. Puberty

1. Definition
2. Why Puberty occurs
3. When puberty occurs
 - a. Female onset
 - i. Average age
 - ii. Wide range of normal
 - b. Male onset
 - i. Average age
 - ii. Wide range of normal
4. How puberty works
 - a. Pituitary gland
 - i. Location
 - ii. Size
 - iii. Functions regarding puberty
 - b. Hormones
 - i. Define-chemical messengers
 - ii. Role in puberty
5. Sorting puberty changes activity
6. Changes that occur during puberty
 - a. Height changes
 - i. Rapid growth
 - ii. Second period of rapid growth in a person's life
 - iii. Growth spurt generally begins sooner for girls
 - b. Shape changes
 - i. Female
 1. Figure 8 shape
 2. Broader and wider hips support baby
 3. Breasts produce milk to feed baby
 - ii. Male
 1. Y shape
 2. Broad, thicker shoulders and upper chest
 3. Hips do not broaden and widen
7. Changes in body proportions
 - a. Feet and hands grow to support the growth spurts of the body in puberty
8. Voice changes
 - a. Males
 - i. Voice becomes deeper over a short period of time

- b. Females
 - i. Voice becomes deeper over a longer period of time
- 9. Hair growth
 - a. Both males and females have new hair growth in the underarms and in between the legs
 - b. It is a personal choice to shave hair. It is best to talk to a trusted adult before trying it for the first time.
- 10. Mood Swings
 - a. Define a mood swing
 - b. Mood swings occur due to the new hormones in puberty
 - c. Discuss strategies that students can use to cope with these mood swings
- 11. Acne
 - a. Hormones cause extra oil to be produced on the skin
 - b. Discuss ways to cope with acne: wash the face, pimple patches, not touching the face
- 12. Body Odor
 - a. Body odor occurs in puberty due to a new kind of sweat being produced and the amount of sweat also increases
 - b. Discuss personal hygiene
 - i. Wash the body once a day with soap and water
 - ii. Wear clean clothes every day
 - iii. Wear deodorant every day
 - iv. Use cologne, body spray, and perfume in moderation
 - v. Shampooing hair more frequently may be necessary for some people

II. Reproductive System

- 1. Characteristics of reproductive system
 - a. System that enables us to reproduce
 - b. This system differs in the male and female
 - c. Only system that does not begin working at birth
 - d. Male reproductive cell name: sperm cell
 - e. Female reproductive cell name: egg cell
- 2. Egg cells
 - a. Size and appearance
 - b. Present at birth
 - c. Contain half the genetic information needed to create human life
- 3. Female Cross section
 - a. Anus
 - i. A part of the digestive system, this is where solid waste exits the body

- ii. Location
- b. Urethra
 - i. A part of the digestive system, this is where liquid waste exits the body
 - ii. Location
- c. Vagina
 - i. Also called the birth canal
 - ii. Location
- d. Cervix
 - i. Small opening between the uterus and the vagina
 - ii. Location
- e. Uterus
 - i. Thick, strong, hollow, muscular organ
 - ii. Houses baby during pregnancy
 - iii. Location
- f. Fallopian Tubes
 - i. Location
- g. Ovaries
 - i. Store egg cells
 - ii. Location
- 4. Sperm cell
 - a. Smallest cell in the human body
 - b. Capable of movement
 - c. Contains half of the DNA needed for human life
 - d. Males start to produce sperm when puberty begins
- 5. Male Cross section
 - a. Anus
 - i. A part of the digestive system, this is where solid waste exits the body
 - ii. Location
 - b. Urethra
 - i. A part of the digestive system, this is where liquid waste exits the body
 - ii. Also a part of the reproductive system, this is where sperm cells exit the body
 - iii. Location
 - c. Testicles
 - i. Sperm cells are produced here
 - ii. Location
 - d. Scrotum
 - i. Saclike structure made of skin that holds the testicles and the epididymis and is responsible for temperature control
 - ii. Location
 - e. Epididymis
 - i. Long, hollow, coiled up tube where sperm cells are stored
 - ii. Location
 - f. Vas Deferens

- i. Hollow tube that leads to the seminal vesical
 - ii. Location
- g. Seminal Vesical
 - i. Produces a milky white substance that mixes with the sperm cells and now it is called semen
 - ii. Location
- h. Prostate Gland
 - i. Produces substances that give sperm cells energy and nutrients
 - ii. Location
- i. Erection
 - i. The blood vessels fill with blood and the penis becomes firm, hard, and erect and stands away from the male body
- j. Ejaculation
 - i. There are a series of tiny muscles along the urethra that push the sperm cells out of the body
- k. Nocturnal Emissions
 - i. A normal event where the body releases a small amount of fluid
 - ii. The body is checking to make sure that it is working properly
- l. Spontaneous erection
 - i. An erection that can happen anytime of the day, it does not mean that the male is thinking of or doing anything wrong
 - ii. The body is checking to make sure that it is working properly
- 6. Conception
 - a. Union of a sperm cell and an egg cell
 - b. Also called fertilization
 - c. Conception video
- 7. Twins
 - a. Identical twins
 - b. Fraternal twins
- 8. Abstinence
 - a. Only 100% effective way to prevent a pregnancy
 - b. Abstinence is a healthy choice
 - i. Can enjoy childhood
 - ii. No financial responsibility
 - iii. Easier to finish school
 - iv. Easier to accomplish life goals
 - v. No parenting responsibilities
- 9. Menstruation
 - a. Define
 - b. Process
 - c. Onset – wide range of normal

- d. Three times in a female's life when they do not have a period: before puberty, during pregnancy, menopause
- e. Sanitary supplies and managing your period

III. Fetal Development

- 1. Fetal Development video
- 2. 1 month- heart has begun to beat
- 3. 2 months- brain is more developed, baby has finger and toe buds
- 4. 3 months- all body parts are developed, note amniotic fluid and placenta
- 5. 4 months- lanugo forms on the baby
- 6. 5 months- vernix caseosa forms on the skin to protect it from the amniotic fluid
- 7. 6 months- baby practices breathing movements
- 8. 7 months- baby responds to sound, light and pain
- 9. Ultrasound video
- 10. 8 months- baby gains about half a pound of fat a week in preparation for birth
- 11. 9 months
 - a. Labor
 - b. Delivery
 - i. Vaginal birth
 - ii. Cesarean section