



The Living **BODY**

FILMS FOR THE
HUMANITIES &
SCIENCES®



Coming Together

Summary

This program focuses on the physiological events of sexual arousal and intercourse as they lead to conception. It highlights the production of ova and sperm, the physical and social elements of sexual desire and attraction, and the fertilization of the ovum.



Sexual reproduction is the ultimate purpose of the living body. The reproductive organs have two main jobs—to store the sperm or ova, and to deliver them to a place where they can meet and unite. The female body has the additional task of housing the fertilized egg as it grows and develops.

During ovulation the female releases one egg from an ovary, which travels through the fallopian tube to be fertilized if it meets waiting sperm. Sperm are produced in the thousands of tubules contained in the testes, and take up to three months to mature. Fertilization joins the chromosomes of the ovum and sperm. Aspects of each parent are combined in a unique arrangement of millions of items of genetic information.

People have minds capable of strong sexual desires and bodies that provide frequent opportunities for sex. Although many aspects of sexual behavior are learned, many of the sensory signals that lead to arousal are innate. The body responds automatically to particular sensory messages received by the brain and the spinal cord, which organize the body's sexual response. During the climax of sexual activity in the male, a hundred million or so mature sperm leave their storage place and travel a 16-inch path through the body. They mix with fluids along the way, and are forced out by contractions in the tube. Sexual activity in the female can lead to a muscular pulsing in the sex organs that produces a peak of excitement.

Once the sperm has been ejaculated into the female, it must travel through the neck of the uterus and into the womb itself. It travels further into the fallopian tubes where fertilization can take place if an egg is present. Most sperm never reach the ovum, and the few who are successful must break through the barrier of cells that surround the egg and must dissolve the outer membrane of the ovum. As soon as one sperm successfully penetrates the ovum, the egg immediately resists penetration by other sperm. The act of fertilization takes place inside the egg where the two sets of chromosomes combine.

Objectives

1. To introduce the complex set of physiological and social factors involved in sexual attraction and desire.
2. To explain the functioning of sensory stimuli in sexual arousal.
3. To illustrate the release of an ovum and the path it takes through the fallopian tube.
4. To examine the production of sperm in the testes, and their journey to the ovum.
5. To describe the DNA structure of chromosomes.
6. To show the actual fertilization of an ovum.

Recall Questions

1. What is the approximate length of an ovum's useful life after being released from the ovary?
2. How long does it take for sperm cells to mature?
3. Name the organ where fertilization usually occurs.
4. What is DNA and where is it found? What is its purpose?
5. What determines the sex of the child that develops from the fertilized egg?

Interpretive Questions

1. A sex researcher once remarked that in spite of appearances, sex mostly takes place in the mind. What does this statement mean?
2. What evolutionary advantages result from human sexual reproduction and the combination of two different sets of chromosomes?
3. What do you think are the learned aspects of human sexual behavior? Do you think that sex is thought about and experienced in the same way by all people?

Vocabulary Required for Effective Viewing

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| • chromosomes | • intercourse | • sexual reproduction |
| • DNA | • ovaries | • sperm |
| • ejaculation | • ovulation | • testes |
| • fallopian tubes | • ovum | • vagina |
| • fertilization | • penis | • womb |



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