

Useful Background Information

Cancer is a disease we usually attribute to old people. Two sex-hormone related cancers, breast cancer and testicular cancer, are particularly deadly and hard to treat. Breast cancer is particularly common, and students are likely to know an older woman who has had it or died from it.

Two sex-hormone related cancers that can occur in young people in their 20s and 30s are cervical cancer and testicular cancer. Both are usually deadly and students will want to know about them and how to prevent or get early diagnosis.

The Veterinary Black Bag Program

Project Goals:

- Develop Veterinarian's Black Bags (VBBs) of instructional items and pamphlets for middle school teachers to support classroom visits by local veterinarians.
- Provide professional development for veterinarians and teachers on how to use items in the VBBs
- Promote inquiry-based thinking about health-related subjects while emphasizing the value of biomedical research and promoting careers in science.



PEER

Partnership for environmental
Education and Rural Health

Dr. Larry Johnson
Principal Investigator, PEER
979-845-9279
ljohnson@cvm.tamu.edu

Dr. William Klemm
Director, Peer
979-845-4201
wklemm@cvm.tamu.edu

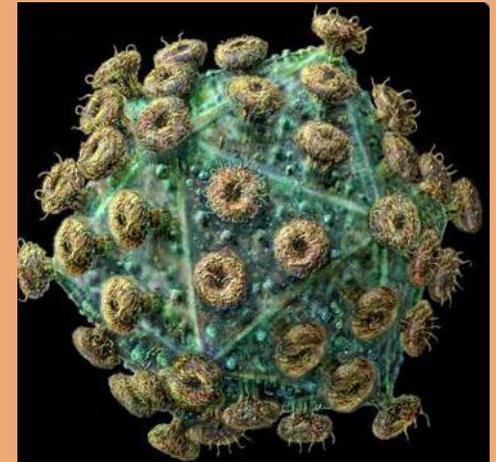
Department of Veterinary Integrative Biosciences
College of Veterinary Medicine & Biomedical Sciences
Texas A&M University, College Station, Tx 77843
MS#4458



<http://peer.tamu.edu/VBB/Summary.asp>

Reproductive Cancers

Follow Up Lesson

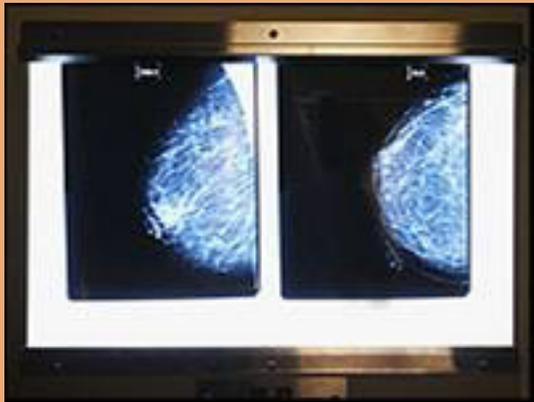


HPV (Human Papillomavirus).
Cause of cervical cancer

The instruction in this module includes:
Presentation on *Neutering*
Follow-up lessons on:
Sex Hormones
Reproductive Cancers
Castration of Farm Animals



Questions To Ask (And Answers)



Mammogram

Objectives

After this lesson, students will be able to:

- Name the three most common types of reproductive cancers
- Explain two ways cervical cancer can be prevented
- Explain what mammograms do and why older women need to have them
- Explain chemotherapy and how it works.

What do you know about Lance Armstrong, the all-time champion of the French bicycle marathon?

(He developed testicular cancer and won the French bicycle marathon several times after diagnosis. Treatment apparently cured the cancer. He was lucky. Most testicular cancer is fatal).

Under what conditions can a vaccine prevent cancer?

(cervical cancer in young women is often caused by a papilloma virus. Vaccination usually prevents the cancer).

Why should girls be vaccinated for cervical cancer?

(the vaccine has no known side effects and, although the cancer is only spread through sexual intercourse, most females eventually become sexually active).

Why does estrogen increase the chances that women will get breast cancer?

(Estrogen stimulates growth and development of breasts. This is also a stimulus for pre-cursor cancer cells).

Why should older women have regular mammograms? (Early detection means treatment can be started soon enough to have a good chance of being successful. Otherwise, breast cancer is untreatable and deadly.)

Lance Armstrong



Summary of Lesson Content

The lesson content focuses on testicular, cervical, and breast cancer. Information is provided via PowerPoint. The lesson is accompanied by pre- and post-tests.

