Cervical Cancer Basics
Paul Singh, VCU School of Pharmacy

What is Cervical Cancer?

Cervical cancer is a treatable and curable cancer if caught early and is most often found in women over the age of 30. The cervix is a part of the female reproductive system that connects the uterus to the vagina. Cervical cancer can be found using Pap smear tests and is most often caused by the human papillomavirus (HPV), which can be passed on through sexual intercourse.

Risk Factors

An ongoing HPV infection is the main risk factor for cervical cancer. Most adults are infected with HPV at some point in their lifetime, but often the infection clears up on its own. In certain cases it does not and can lead to cervical cancer. Other factors that increase the risk of cervical cancer include:

- Smoking cigarettes
- Having multiple sex partners
- Having given birth to three or more children
- Use of birth control pills for five or more years
- Having a weak immune system or taking medications that weaken your immune system and prevent you from getting rid of an HPV infection

Symptoms

An HPV infection and early cervical cancer do not usually result in any signs or symptoms. In cases where the cancer has grown significantly, patients may experience abnormal vaginal bleeding that occurs between regular menstrual periods or after sexual intercourse. Menstrual periods that last longer and heavier than before can also be a symptom, as can vaginal bleeding after menopause. Also, women may notice increased vaginal discharge, pelvic pain, or pain during sex. These symptoms do not always mean cervical cancer. You should talk to your doctor as soon as possible if you have any of these symptoms.

Screening and Prevention

There are two screening tests that can help prevent cervical cancer. A Pap smear test is advised for all women between the ages of 21 and 65 years old. The test involves the scraping of cells from the cervix to see if there are any abnormal cells. An HPV test to determine an infection can also be performed. HPV vaccines can prevent HPV infections and are suggested for females between the ages of 9 to 26 years of age. It is important for females to be vaccinated before becoming sexually active. It is important to continue receiving regular Pap smear tests to screen for cervical cancer, even if you receive the HPV vaccine.

Sources:

Preventing the Spread of Human Papillomavirus: The HPV Vaccine
Jessica Libuit, VCU School of Pharmacy

The Human Papillomavirus or HPV is a common virus that is spread through sexual contact. Certain types of this virus can cause genital warts and lead to cancers of the mouth and the reproductive organs in both men and women.

There are two FDA-approved HPV vaccines that are safe and effective for men and women between the ages of 9 and 26 years: Cervarix and Gardasil. The CDC suggests vaccination of either brand for all girls aged 11 or 12 years and Gardasil for all boys aged 11 or 12 years. The vaccine is important for children because it works best before becoming sexually active and is given to prevent infection with HPV. The HPV vaccine does not treat existing infections and does not work in people over 26 years old. Both Cervarix and Gardasil protect against the most common type of HPV related to cancers, HPV16. The HPV vaccine is a shot that is given in three doses over six months. After the first shot, the second shot is given one to two months after and the third shot is given six months after the first. Most insurance companies will cover the vaccine since the CDC recommends it. Check with your insurance provider to see if the cost of the vaccine is covered before going to see the doctor.

If you would like more information, go to http://www.cdc.gov/vaccines/vpd-vac/hpv/default.htm or talk to your doctor or pharmacist.

Sources:
http://www.physicsforums.com
http://www.cdc.gov/std/gonorrhea/STDFact-gonorrhea-detailed.html
Urinary Tract Infections
Sarah Aesy, VCU School of Pharmacy

Urinary tract infections (UTIs) are a very common occurrence among young women but can be present in all other patient populations as well. More than 50% of women have at least 1 UTI within their lifetime and approximately 10% of women have a UTI each year. Certain groups of people are more likely to get UTIs and are at an increased risk of complications from UTIs. These include: infants, pregnant women, elderly, and individuals with diabetes. Proven risk factors for getting a UTI include recent sexual activity and the use of spermicidal agents during sex. Other things that can increase your risk of UTIs are urinary incontinence and poor hygiene.

Since UTIs are treated with antibiotics prescribed by doctors it is important to know the symptoms so that you know when to go to the doctor’s office. The most common symptoms of UTIs include: urinary frequency, painful urination, urgency, pelvic pain, and lower back pain. Symptoms in the elderly can be a little different than younger people. Older adults can experience confusion and general weakness when they get a UTI. Symptoms such as vaginal irritation, bleeding, and discharge are not typical of a UTI and may indicate something more serious.

If you experience any of the symptoms listed above see your doctor to get an antibiotic to treat your UTI or to determine if something more serious is occurring. Although there is no proven evidence that drinking plenty of water and urinating after intercourse prevents UTIs, they are still recommended by many sources. To help prevent UTIs it is important to remember to maintain good hygiene. Cranberry juice can have modest benefit when you drink 200-750 mL/day but is usually not recommended on a routine basis. Overall, UTIs are very treatable but complications can occur if you are in a high-risk group or if your UTI goes untreated. See your doctor to determine what treatment options are right for you.

Sources:
extension.usu.edu (IMG), www.wellnesstimes.com (IMG), www.askdoctork.com (IMG)

Gonorrhea: Know the facts
Alex Enurah, VCU School of Medicine

Gonorrhea is a sexually transmitted infection caused by bacteria which can grow in the reproductive tract as well as the mouth, throat, eyes, and anus in men and women. This bacteria can be transmitted through anal, vaginal, and/or oral sex. It can also be spread from a mother to a child during child birth. According to the CDC Virginia had 6,518 cases of gonorrhea in 2011.

In men the bacteria may cause no symptoms at all or it may cause a burning feeling when urinating and/or pus that leaks from the penis, which may start 1-14 days after infection. Swollen and painful testicle are possible as well and the bacteria can lead to a painful condition called epididymitis which is an infection of a part of male reproductive tract called the epididymitis. Sometimes men may also not be able to have children after the infection.

In women no symptoms are usually seen but sometimes infection from gonorrhea can be confused with a regular urinary tract infection. Women may feel a burning sensation, increased vaginal discharge, or bleeding between periods due to the gonorrhea. In women the infection can spread to the uterus and fallopian tube and lead to a condition called pelvic inflammatory disease (PID).

PID can lead to infertility, ectopic pregnancy (which is a pregnancy in the fallopian tube or somewhere else outside of the womb), abscess formation, and chronic pelvic pain. Those who may have contracted it rectally may have symptoms which include anal discharge, itching, soreness, bleeding, or painful bowel movements.

A doctor can check for a gonorrhea infection through a urine test. In addition, a swab sample may be taken from the urethra of the male or cervix of the female as well as the throat or rectum. If you think you may have been exposed to someone who had a sexual transmitted disease you should contact your primary care provider or local clinic for more information.

Sources:
http://www.urology-textbook.com/gonorrhea.html (IMG)
For more information about gonorrhea and other STI’s please visit: http://www.cdc.gov/std/default.html

If you think you have a Sexually Transmitted Infection (STI) it is important to get tested and get treatment if needed. Here are some places in Richmond where you can get tested for STIs:

**Richmond City Health District**
Free and low-cost services, Medicaid accepted
400 East Cary Street (use the Main Street Entrance)
Richmond, VA 23219

Monday, Wednesday and Friday
7:30am – 10:30am and 12:30pm to 3:30pm

No appointment necessary
804-482-5500
http://www.vdh.state.va.us/LHD/richmondcity/clinic.html

**Planned Parenthood Richmond Health Center**
Low-cost STI services, Medicaid accepted
201 N. Hamilton Street
Richmond, VA 23221

Monday through Saturday
Call for hours and appointment
804-355-4358
http://www.plannedparenthood.org

**VCU University Student Health Services**
VCU Students
Monroe Park Location
1300 W. Broad Street, Suite 2200
Richmond, VA 23284
804-828-8828

MCV Campus
1000 E. Marshall Street, Room 305
Richmond, VA 23219
804-828-9220
Call for hours and appointments
http://www.students.vcu.edu/health/

**Fan Free Clinic**
Uninsured individuals only – Must qualify for services
1010 N. Thompson Street
Richmond, VA 23230
804-358-8538
By appointment only
Call for hours and appointment
http://www.fanfreeclinic.org