RUTGERS
Cancer Institute
of New Jersey

NCI CCC
A Comprehensive Cancer Center Designated by the National Cancer Institute

February Is Screening and Early Detection for Cancer Month

Cancer is the result of the uncontrolled growth and spread of abnormal cells within the body. There are many different types of cancers. Reducing your risk factors can prevent some of these cancers. A risk factor is anything that increases a person's chance of developing cancer. An example of a risk factor that can be controlled is smoking; choosing not to smoke will greatly reduce the risk of getting lung cancer. A risk factor that cannot be controlled is your genes. You can inherit genes from your parents that may make you more likely to get a cancer.

Cancer Screening

You can also prevent cancer by detecting abnormal cells that can become cancer cells. These abnormal cells can be discovered through a cancer screening. Types of cancer screenings include an exam by your healthcare team or a test that detects abnormal cells. A physical exam may help detect certain types of cancers at an early stage. Below are some examples of screening exams or tests.

Screening Exam or Test	Cancer Detected
Physical exam	Examples of cancers include skin, oral, lymphomas, breast, liver, colon, rectal, prostate, endometrial and ovarian
Mammography	Breast
PAP smear	Cervical
PSA (Prostate Specific Antigen)	Prostate
Colonoscopy	Rectal and colon cancer
Stool for Occult Blood	Rectal and colon cancer

Once a year you should see your healthcare team and ask to have the suggested screening cancer tests. A good way to remember to see your healthcare team is plan your visit around your birthday every year.

Most tests are covered by medical insurance. If you do not have insurance then contact your local public health office for places you can go to for these services either at no cost or at a reduced cost.

The following gives guidelines about screening cancer tests you should have based on your age. Please note: your family medical history or your personal health issues can change these screening guidelines.

As of 2/1/14, the American Cancer Society has not published its revised 2014 cancer screening guidelines based on new research. Please see the American Cancer Society's Web site at www.cancer.org after February 2014 for the most current information.

Cancer-related Checkup
Beginning at age 20, men and women should have periodic health exams, a cancer-related checkup which includes health counseling, and depending on a person's age and gender, might include exams for cancers of the thyroid, oral cavity, skin, lymph nodes, testes, and ovaries, as well as for some non-malignant (non-cancerous) diseases. Special tests for certain cancer sites are recommended (by the American Cancer Society) as outlined below.

Breast Cancer

- Yearly mammograms are recommended starting at age 40 and continuing for as long as a woman is in good health.
- Clinical breast exam (CBE) should be part of a periodic health exam, about every three years for women in their 20s and 30s and every year for women 40 and over.
- Women should know how their breasts normally feel and report any breast change promptly to their health care providers. Breast self-exam (BSE) is an option for women starting in their 20s.
- Women at increased risk (for example, family history, genetic tendency, past breast cancer) should talk with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (for example, breast ultrasound or MRI), or having more frequent exams.

Colon and Rectal Cancer
Beginning at age 50, both men and women should follow 1 of these 5 testing schedules:

- yearly fecal occult blood test (FOBT)* or fecal immunochemical test (FIT)
- flexible sigmoidoscopy every 5 years
- yearly FOBT* or FIT, plus flexible sigmoidoscopy every 5 years**
- double-contrast barium enema every 5 years
- colonoscopy every 10 years
- CT colonography (virtual colonoscopy) every 5 years

  * For FOBT, the take-home multiple sample method should be used.
  ** The combination of yearly FOBT or FIT flexible sigmoidoscopy every 5 years is preferred over either of these options alone.

All positive tests should be followed up with colonoscopy.

People should talk to their doctor about starting colorectal cancer screening earlier and/or undergoing screening more often if they have any of the following colorectal cancer risk factors:

- A personal history of colorectal cancer or adenomatous polyps
- A strong family history of colorectal cancer or polyps (cancer or polyps in a first-degree relative [parent, sibling, or child] younger than 60 or in two first-degree relatives of any age)
- A personal history of chronic inflammatory bowel disease
- A family history of a hereditary colorectal cancer syndrome (familial adenomatous polyposis or hereditary non-polyposis colon cancer).

Cervical Cancer

- All women should begin cervical cancer screening at age 21. Women under age 21 should not be tested.
- Women between the ages of 21 and 29 should have a Pap test every 3 years. HPV testing should not be used unless it is needed after an abnormal Pap test result.
- Women between the ages of 30 and 65 should have a Pap test plus and HPV test every 5 years or have the Pap test alone every 3 years.
- Women over age 65 who have had regular cervical cancer testing with normal results can stop being tested. Women with a history of cervical pre-cancer should continue to be tested for at least 20 years after that diagnosis, even if testing continues past age 65.

- Women who have had a total hysterectomy (removal of the uterus and cervix) may also choose to stop having cervical cancer screening, unless the surgery was done as a treatment for cervical cancer or pre-cancer. Women who have had a hysterectomy without removal of the cervix should continue to follow the guidelines above.
- Women who have been vaccinated against HPV should still follow the above screening recommendations.

Endometrial (Uterine) Cancer

The American Cancer Society recommends that at the time of menopause, all women should be informed about the risks and symptoms of endometrial cancer, and strongly encouraged to report any unexpected bleeding or spotting to their doctors.

Lung Cancer

The American Cancer Society does not recommend tests to screen for lung cancer in people who are at average risk of this disease. However, the ACS does have screening guidelines for individuals who are at high risk of lung cancer due to cigarette smoking. If you meet all of the following criteria then you might be a candidate for screening:

- 55 to 74 years of age
- 55 to 74 years of age
- Have at least a 30 pack-year smoking history AND are eithers till smoking or have quit smoking within the last 15 years

Prostate Cancer

The American Cancer Society recommends that men make an informed decision with their doctor about whether to be tested for prostate cancer. Research has not yet proven that the potential benefits of testing outweigh the harms of testing and treatment. The American Cancer Society believes that men should not be tested without learning about what we know and don’t know about the risks and possible benefits of testing and treatment.

Starting at age 50, talk to your doctor about the pros and cons of testing so you can decide if testing is the right choice for you. If you are African American or have a father or brother who had prostate cancer before age 65, you should have this talk with your doctor starting at age 45. If you decide to be tested, you should have the PSA blood test with or without a rectal exam. How often you are tested will depend on your PSA level. Information should be provided to all men about what is known and what is uncertain about the benefits, limitations, and harms of early detection and treatment of prostate cancer so that they can make an informed decision about testing.

Preventing Cancer

Researchers believe keeping a healthy life style could prevent many cancers. A healthy life-style includes maintaining a healthy weight, staying physically active, managing stress, avoiding heavy or excess alcohol, and not smoking. Avoiding exposure to cancer causing agents such as certain chemicals, lead and asbestos, and sun exposure that results in sunburns can also help prevent cancer.

Diet and Health Guidelines for Cancer Prevention

1. Choose a diet rich in a variety of plant-based foods.
2. Eat plenty of vegetables and fruits.
3. Maintain a healthy weight and be physically active.
4. Drink alcohol only in moderation, if at all.
5. Select foods low in fat and salt.
6. Prepare and store food safely.

And always remember...

Do not use tobacco in any form.

American Institute of Cancer Research, 2004 A Healthy Weight for Life

Healthy Eating

Healthy eating is an important part of preventing cancer. The American Cancer Society recommends the following as part of a healthy diet:

Eat a variety of healthful foods, with an emphasis on plant sources. • Plant sources are grains, fruit vegetables, soy, and other non-meat foods.
Eat five or more servings of a variety of vegetables and fruits each day.
• Include vegetables and fruits at every meal and for snacks.
• Eat a variety of vegetables and fruits.
• Limit French fries, snack chips, and other fried vegetable products.
• Choose 100% juice if you drink fruit or vegetable juices.
Choose whole grains in preference to processed (refined) grains and sugars.
• Choose whole grain rice, bread, pasta, and cereals.
• Limit consumption of refined carbohydrates, including pastries, sweetened cereals, soft drinks, and sugars.
Limit consumption of red meats, especially those processed and high in fat.
• Choose fish, poultry, or beans as an alternative to beef, pork, and lamb.
• When you eat meat, select lean cuts and smaller portions.
• Prepare meat by baking, broiling, or poaching, rather than by frying or charbroiling.
Choose foods that help maintain a healthful weight.
• When you eat away from home, choose food low in fat, calories, and sugar and avoid large portions.
• Eat smaller portions of high-calorie foods. Be aware that “low fat” or “fat free” does not mean “low calorie” and those low-fat cakes, cookies, and similar foods are often high in calories.
• Substitute vegetables, fruits, and other low-calorie foods for calorie-dense foods such as French fries, cheeseburgers, pizza, ice cream, doughnuts, and other sweets.

Stay Physically Active

"If exercise could be packed into a pill, it would be the single most widely prescribed pill in the nation." --Dr. Robert Burke

Benefits of Regular Exercise

- Reduces risk of heart disease
- Increases good cholesterol
- Lowers blood pressure
- Reduces the risk of diabetes
- Reduces the risk of colon, prostate and breast cancers
- Helps maintain weight
- Controls appetite
- Improves muscle tone and strength
- Improves balance
- Relieves insomnia
- Relieves anxiety and stress
- Prevents/treats depression
- Boosts self-image

Recommended Amount of Exercise

- Adults should engage in moderate-intensity physical activities for at least 30 minutes on five or more days of the week.
  - *Centers for Disease Control and Prevention/American College of Sports Medicine*

Examples of Healthy Exercise

- Walking
- Bicycle riding
- Stretching
- Jogging
- Hiking
- Gardening
- Housecleaning
- Dancing
- Racket sports
- Resistance exercises

Steps to Start Living a More Active Life

1. **Obtain medical clearance from your doctor if you are:**
   - Male and 45 years old and older
   - Female and 55 years and older

2. **Build exercise into your day:**
   - Every little bit makes a difference
   - Make exercise convenient
     - Take the stairs instead of the elevator
     - Walk short distances instead of driving
     - Park a little farther from store entrances and walk
   - Make exercise fun
     - Do activities that you find enjoyable
     - Get an exercise partner
   - Find indoor options when weather is too cold or hot
     - Mall walking
     - Aerobic exercise videos
     - Stationary bike
     - Treadmill
     - Dancing
   - Remember to start off slowly and set realistic goals!

Smoking

Studies show that tobacco products in any form (for example cigarettes and chewing tobacco) are a major cause of lung and head and neck cancer. Avoiding tobacco and quitting smoking are the two major steps that can be taken to prevent cancer. The earlier you start using tobacco, the greater your risk for developing cancer and other health problems.

Sun Facts

The sun is needed for its light and warmth, but the sun's ultraviolet (UV) radiation can cause damage to your skin and eyes. This damage leads to premature aging of the skin and is the greatest risk factor for developing skin cancer. The damaging effects of UV radiation are present even when it's cloudy or overcast.

Sun exposure that is intense enough to cause sunburn clearly increases a person's risk of developing skin cancer. Even UV exposure that does not cause sunburn can increase skin cancer risk.

Protection from the Damaging Rays of the Sun

Limiting exposure to the damaging UV radiation of the sun is the best way to prevent skin cancer.

- Try and avoid the sun between 10:00 a.m. and 3:00 p.m.
- Wear protective clothing--cover up with a wide-brimmed hat, long-sleeved shirts and pants to ensure the sun won't penetrate.
- Use sunscreen. The American Cancer Society recommends that you use a sunscreen with a sun protective factor (SPF) of 15 or higher. Apply the sunscreen to any part of the body that is not protected by clothing. It is important to remember that the sunscreen must be reapplied throughout the day in order to be effective.
- Beware of cloudy days. You can get burned just as easily on a cloudy day as a sunny day.
- Do not use sunlamps or tanning salons.

Genetic Testing

Researchers have found changes (mutations) in genes may cause cancer. Some genetic changes may increase a person's chance of getting cancer. People who are concerned about cancer in their family should talk to their doctor. The doctor may send them to a cancer genetics specialist. People with a strong family history of cancer may be recommended to have a blood test. These tests may show if they have inherited any of these genetic changes. Genetic counseling helps people decide if testing is right for them as well as understand and deal with the results.

Genetic counseling is available through the Hereditary Oncology Prevention and Evaluation Program at Rutgers Cancer Institute of New Jersey. Please call 732-235-7110 to schedule an appointment.

More Healthy Lifestyle Choices

Making healthy lifestyle choices will decrease the risk of developing cancer**.** **Viruses** such as the human papilloma virus (HPV) and Human Immunodeficiency virus (HIV) may cause cancer. Sexual behaviors that increase your chances of contracting these viruses are:

- intercourse at an early age
- having many sexual partners
- having sex with uncircumcised males
- having unprotected sex

Alcohol is also linked to certain types of cancers. The National Cancer Institute provides the following information on alcohol consumption and the association between drinking alcohol and developing cancer.

- Drinking alcohol increases the risk of cancers of the mouth, esophagus, pharynx, larynx, and liver in men and women, and breast cancer in women. In general, these risks increase with more than one drink daily for women and two drinks daily for men. (A drink is defined as 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof liquor.)
- Two drinks daily increase the risk of getting breast cancer by about 25 percent. The chances of getting liver cancer increase with five or more drinks daily.
- The earlier that long-term, heavy alcohol use begins, the greater the cancer risk. Also, using alcohol with tobacco is riskier than using either one alone, because it further increases the chances of getting cancers of the mouth, throat, and esophagus.

Cancer Prevention Clinical Trials

If you would like information about clinical trials (available in New Jersey) for preventing cancer, please call Rutgers Cancer Institute of New Jersey at 732-235-8675. For additional information about nationwide cancer prevention trials, you can call the National Cancer Institute at 1-800-4 CANCER or visit their Web site at www.cancer.gov.

Where Can I Find Further Information?

The Resource and Learning Center
732-235-9639
www.cinj.org/rlc

National Cancer Institute
1-800-4-CANCER
www.cancer.gov

The American Cancer Society
1-800-ACS-2345
www.cancer.org

American Institute for Cancer Research
1-800-843-8114
www.aicr.org

National Institute of Health
301-496-4000
www.nih.gov

U.S. Preventive Services Task Force
www.uspreventiveservicestaskforce.org/recommendations.htm

National Center for Chronic Disease Prevention and Health Promotion
800-311-3435
www.cdc.gov/chronicdisease/index.htm

RLC website QR code. Scan with your smartphone or device.

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