

The information included in this guide is strictly for educational purposes. It is not intended to provide specific medical advice. If you have any questions about information you read, please consult your healthcare professional.



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# Stop Cancer Before It Starts!

A GUIDE TO PREVENT CANCER



## ABOUT THE PREVENT CANCER FOUNDATION

**The mission of the Prevent Cancer Foundation is saving lives through cancer prevention and early detection.**

**Our vision is to *Stop Cancer Before It Starts!***

Founded in 1985, the Prevent Cancer Foundation is the only nonprofit in the United States focused exclusively on cancer prevention and early detection. Having invested \$138 million in research, education, outreach and advocacy, the Foundation has focused its resources on cancers that can be prevented in many instances through healthy lifestyle choices and cancer screenings, as well as early detection that often leads to successful treatment outcomes. The Foundation has been referred to as “the candle that ignited a bonfire.”

**Our work is focused on four areas:**

### RESEARCH

We fund innovative research that helps us understand how to prevent cancer or detect it early, when successful treatment is more likely.

### EDUCATION

We educate the public about ways to prevent cancer and detect it early through healthy lifestyle choices and medical screenings.

### OUTREACH

We partner with trusted medical and educational organizations and respected members of the community to implement lifesaving cancer prevention and early detection programs.

### ADVOCACY

We advocate for policies, legislation and regulations that advance cancer prevention priorities and cancer research that support the needs of cancer patients and their families.

## WHY YOU SHOULD CARE:

More than 1.6 million Americans will be diagnosed with cancer this year and more than 580,000 will die. However, research shows that **up to 60 percent of cancer cases and more than 50 percent of cancer deaths are preventable** with the knowledge we have today.

As the cost of health care continues to be a looming issue, the high and unsustainable cost of cancer treatment is especially significant. The implications of this issue are staggering, as cancer costs are projected to reach \$158 billion per year by the year 2020.

Prevention and early detection are more important than ever—and are proven, effective strategies to lower health care costs.

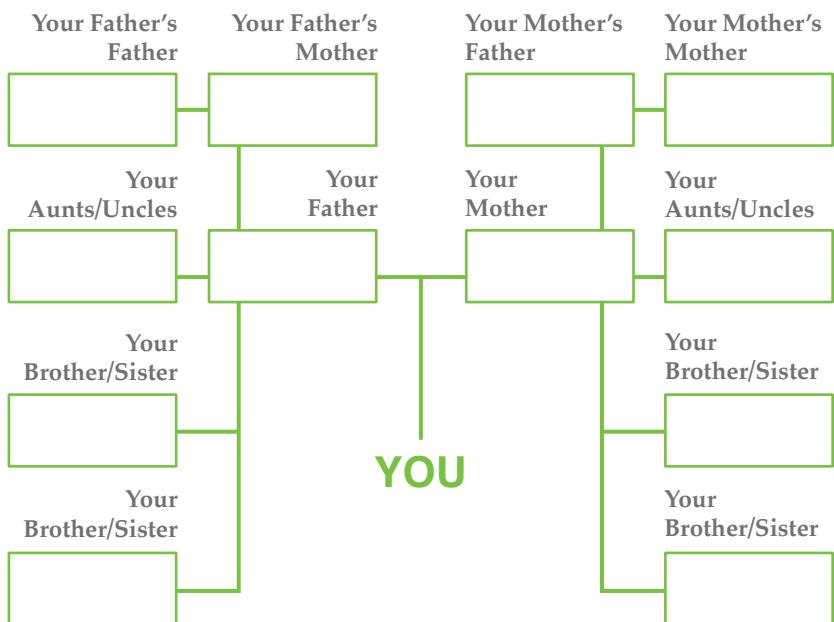


## GET THE FACTS.

Get the facts about cancer from reliable sources. To get started, check out the Foundation's online resources at [www.PreventCancer.org](http://www.PreventCancer.org).

## KNOW YOUR FAMILY HISTORY.

Most people who get cancer do not have a family history, which is one reason why screening is so important — but a personal or family history of cancer or certain other diseases may increase your risk.



Complete this family medical history chart and share it with your family and your health care professional to help determine your risk.

- For each blood relative, note in the box any cancer or other chronic disease the person had and the age at which each was diagnosed.
- Note any surgeries related to cancer and the dates of the procedures.
- If you can, note the date of birth and date and cause of death for family members who are deceased.

***This will help you and your health care professional decide which cancer screenings you may need and when to begin screening.***

## SEVEN Ways to Prevent Cancer

### DON'T USE TOBACCO.

The use of tobacco products has been linked to many types of cancer, including lung, colorectal, breast, throat, cervical, bladder, mouth and esophageal. It's never too late to quit.

More than 85 percent of all lung cancer is related to smoking. Non-smokers who are exposed to secondhand smoke are also at risk for lung cancer and other respiratory conditions.

### PROTECT YOUR SKIN FROM THE SUN.

Skin cancer is the most common—and preventable—cancer in the United States. More than 3.5 million skin cancers in over two million people are diagnosed annually. Exposure to the sun's ultraviolet radiation causes most skin cancer. Be sure to use adequate sun protection year-round. Never use indoor tanning beds.

### EAT A HEALTHY DIET.

Eat lots of fruits, vegetables, beans and whole grains, limit red meat and cut out processed meats.

### MAINTAIN A HEALTHY WEIGHT AND BE PHYSICALLY ACTIVE.

Getting at least 30 minutes of physical activity each day can make a big difference in your general health and well-being.

Inactivity and obesity have been linked to breast and colorectal cancer, and there is also some evidence of a link to lung and pancreatic cancer. Add exercise to your routine to reduce stress, increase energy, boost your immune system, control your weight and reduce your risk for cancer.

### PRACTICE SAFE SEX AND AVOID RISKY BEHAVIORS.

Many strains of the Human papilloma-virus, also known as HPV, are spread through skin to skin contact during vaginal, anal and oral sex. High-risk strains of HPV have increasingly been found to cause many types of cancer.

The Hepatitis B virus (HBV) can also be spread from person to person through unprotected sex. It can cause long-term liver infections that can increase a person's chance of developing liver cancer.

### GET IMMUNIZED (HPV & HEPATITIS VACCINES).

Certain viruses have been linked to cancer, but are preventable through vaccination. Talk to your health care professional about the age recommendations for HPV vaccines.

In the U.S., approximately one-third of liver cancers are linked to the Hepatitis B virus (HBV) and Hepatitis C virus (HCV). An HBV vaccination is available and is recommended for babies, older children who were not vaccinated earlier and adults who are at risk for HBV infection.

### KNOW YOUR FAMILY MEDICAL HISTORY AND GET REGULAR CANCER SCREENINGS.

Talk to your health care professional about cancer screening. Some tests can help detect cancer early, when treatment is more likely to be successful, and some can also detect precancerous conditions before they become cancer. While screening has been proven to save lives, screening guidelines aren't always "one size fits all."

# Breast Cancer

Annually, over 230,000 women and 2,000 men will be diagnosed with invasive breast cancer (cancer that has spread from where it started in the breast into surrounding healthy tissue) and roughly 40,000 will die of the disease.

**Get diagnosed early and treated before it spreads. When detected early, the five-year survival rate for breast cancer is 99 percent.**

## WHO IS AT RISK?

### Women who

- Began their menstrual periods before age 12 or began menopause after age 55
- Are currently using or have recently used birth control pills
- Have never had children, or who had their first children after age 30
- Have used hormone replacement therapy (HRT) with estrogen and progesterone for more than ten years
- Have mutations of BRCA-1, BRCA-2 or PALB-2 genes
- Have a family history of breast cancer, colorectal cancer or ovarian cancer

### Women and men who

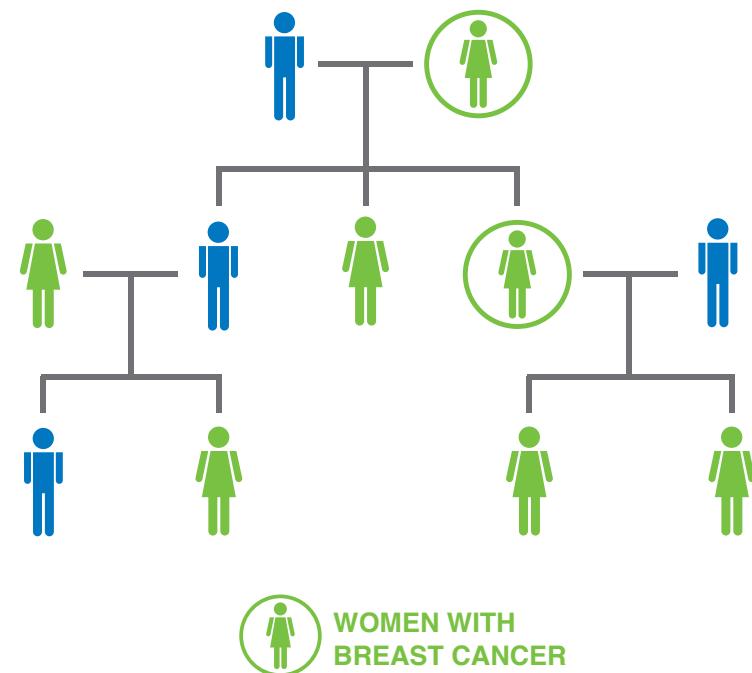
- Are overweight or obese
- Are not physically active
- Are over 40 (Most breast cancer is diagnosed in women over age 40. On average, men with breast cancer are diagnosed at age 68.)
- Have had high-dose radiation therapy on their chests
- Have a family history of breast or ovarian cancer (Risk increases if several close relatives have been diagnosed with breast cancer or if a person's mother was diagnosed before age 50.)
- Have already had cancer in one breast

## HOW CAN I REDUCE MY RISK OR DETECT BREAST CANCER EARLY?

- Breast feeding may lower a woman's risk
- Limit alcohol. No more than one drink a day for women and two drinks a day for men
- Exercise daily for 30 to 60 minutes
- Maintain a healthy weight
- If you smoke, quit

- In your 20s and 30s, have a clinical breast exam (CBE) done by a health professional at least once every three years
- Beginning at age 40 or older, have an annual CBE
- Beginning at age 40, get screened annually. Discuss the benefits and risks of screening tests with your health care professional
- If you are at high risk, talk with your health care professional about beginning annual screening mammograms at a younger age and also having a magnetic resonance imaging (MRI)
- If you have a family history of breast, ovarian or colorectal cancer, talk with your health care professional about genetic testing
- At menopause, talk with your health care professional about whether you should have hormone replacement therapy

**Risk factors increase if several close relatives have been diagnosed with breast cancer or if a person's mother was diagnosed before age 50.**



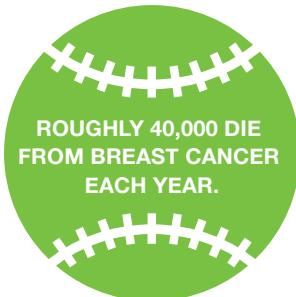
## WHAT ARE THE SYMPTOMS?

If you notice any of the following symptoms, talk with your health care professional:

- A lump, hard knot or thickening in the breast
- A lump under your arm
- A change in the size or shape of a breast
- Nipple pain, tenderness or discharge, including bleeding
- Itchiness, scales, soreness or rash on nipple
- A nipple turning inward or inverted
- A change in skin color and texture (dimpling, puckering or redness)
- A breast that feels warm or swollen

***Know your body, take note of any changes and take action.***

**14%** OF ALL CANCER DEATHS ARE FROM BREAST CANCER.



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## WHAT ARE THE TREATMENT OPTIONS?

Treatment depends on the type and stage of the breast cancer:

- The most common treatment is surgery to remove the cancer itself (lumpectomy) combined with radiation. In some cases, removal of the breast (mastectomy) is needed.
- Chemotherapy, radiation therapy, hormone therapy or targeted therapy may be used alone or in combination before or after surgery.

# Cervical Cancer

Every year, more than 12,000 women will be diagnosed with invasive cervical cancer (cancer that has spread from the surface of the cervix to tissue deeper in the cervix or to other body parts) and over 4,000 women will die of the disease. Today, lives are saved because of regular screening with a Pap test (also called a Pap smear).

## WHO IS AT RISK?

### Women who

- Have the Human Papillomavirus (HPV), a common sexually transmitted virus that can cause cervical cancer
- Began having sex at an early age
- Have had multiple sexual partners
- Do not have regular Pap tests
- Smoke
- Have used birth control pills for a long time
- Have weakened immune systems, such as women who have the human immunodeficiency virus (HIV)
- Are overweight or obese
- Have a close relative, such as a sister or mother, who has had cervical cancer
- Were exposed to diethylstilbestrol (DES) before birth

## HOW CAN I REDUCE MY RISK OR DETECT CERVICAL CANCER EARLY?

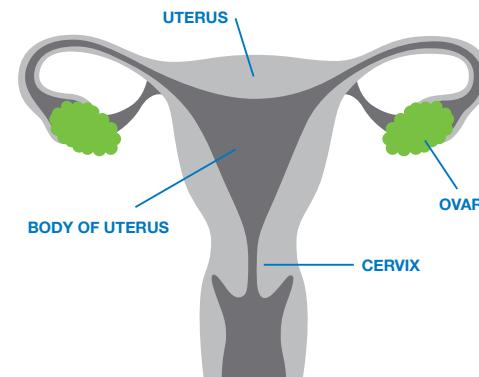
- Talk with your health care professional about the HPV vaccine
- Practice safe sex
- Avoid smoking and secondhand smoke
- Begin regular cervical cancer screenings at age 21. Women in their twenties should have a Pap test every three years
- From age 35-65, the preferred way to screen is with a Pap test combined with an HPV test every 5 years, or a Pap test every 3 years
- If you are at high risk for cervical cancer because of a suppressed immune system (for example, from HIV infection, organ transplant or long-term steroid use) or because you were exposed to DES in utero, you may need to be screened more often. Follow the recommendations of your health care professional
- Beginning at age 65 or older, talk with your health care professional about whether you still need a Pap test

*Cervical cancer usually does not show symptoms until later stages. Pelvic exams and Pap tests are key to early detection.*

## HPV VACCINE

The HPV vaccine protects against the types of HPV that are most likely to cause cancer. HPV vaccine are most effective when given before a person becomes sexually active.

The vaccine is recommended for girls who are age 11 to 12. Boys may also get the vaccine. Girls and young women who are vaccinated still need to get screened according to guidelines starting at age 21. (Read more about other types of cancer that are caused by HPV on page 29.)



## WHAT ARE THE SYMPTOMS?

Precancerous conditions in the cervix usually don't cause symptoms and are not detected unless a woman has a pelvic exam and a Pap test. You should talk with your health care professional right away if you experience any of the following symptoms:

- Increased or unusual discharge from the vagina
- Blood spots or light bleeding at times other than a normal period
- Menstrual bleeding that lasts longer and is heavier than usual
- Bleeding or pain during or after sex
- Bleeding after menopause

## WHAT ARE THE TREATMENT OPTIONS?

Cervical cancer is treated through surgery, radiation and chemotherapy. These therapies may be given alone or in combination with one another. Treatment depends on the stage of the cancer, the type of tumor cells and a woman's medical condition.

# Colorectal Cancer

Colorectal cancer is cancer of the colon or rectum. It's the third most common type of cancer in the U.S. for both men and women and the second leading cause of cancer deaths overall. An estimated 140,000 individuals are diagnosed with colorectal cancer and over 50,000 will die of the disease each year. With certain types of screening, this cancer can be prevented by removing polyps (grape-like growths on the wall of the intestine) before they become cancerous, or detected early when it can be more easily and successfully treated.

## WHO IS AT RISK?

**Men and women who**

- Are age 50 and older
- Smoke
- Are overweight or obese, especially those who carry fat around their waists
- Aren't physically active
- Drink alcohol in excess, especially men
- Eat a high quantity of red meat (such as beef, pork or lamb) or processed meat (such as bacon, sausage, hot dogs or cold cuts)
- Have personal or family histories of colorectal cancer or benign (not cancerous) colorectal polyps
- Have personal histories of inflammatory bowel disease (such as ulcerative colitis or Crohn's disease)

## HOW CAN I REDUCE MY RISK OR DETECT COLORECTAL CANCER EARLY?

- Be physically active for at least 30 minutes, at least five days a week
- Maintain a healthy weight and waist size
- Don't smoke. If you do smoke, quit
- If you drink alcohol, have no more than one drink a day if you're a woman or two drinks a day if you're a man
- Eat more fruits, vegetables, beans and whole grains. These foods are good sources of fiber
- Eat less red meat and cut out processed meat
- Get screened



Visitors learn about the different stages of colon cancer in the Prevent Cancer Super Colon™, an inflatable 20 ft. long, 8 ft. high educational exhibit.

***Start getting screened at age 50 if you're at average risk for colorectal cancer. If you're at a higher risk you may need to start regular screening at an earlier age and be screened more often. If you're older than 75 ask your doctor if you should continue to be screened.***

## COLORECTAL CANCER SCREENING INTERVALS

Use this information to help you talk with your health care professional about your screening options and the benefits and risks. Consider one of these tests:

### TESTS THAT FIND PRE-CANCER AND CANCER

|                              | <i>Screening Intervals</i> |
|------------------------------|----------------------------|
| Colonoscopy                  | Every 10 years             |
| Virtual colonoscopy          | Every 5 years              |
| Flexible sigmoidoscopy       | Every 5 years              |
| Double-contrast barium enema | Every 5 years              |

(Only when other screening tests are not available)

### TESTS THAT MAINLY FIND CANCER (STOOL TESTS)

|   |   |
|---|---|
| Fecal occult blood tests (FOBT) Guaiac test | Every year<br><i>(Only high sensitivity guaiac-based FOBTs should be used for colorectal cancer screening.)</i> |
| Fecal immunochemical test (FIT)             | Every year  |
| Stool DNA test (sDNA)                       | Ask your health care professional   |

## WHAT ARE THE SYMPTOMS?

Early stages of colorectal cancer do not usually have symptoms. During later stages, people may have these symptoms:

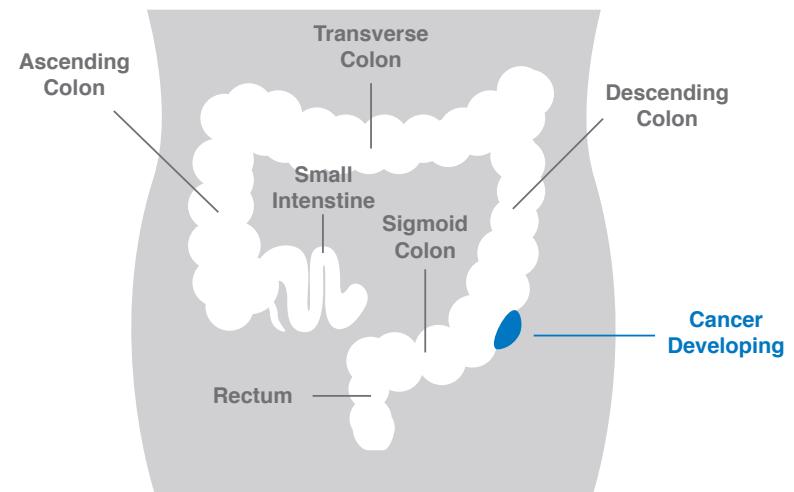
- Bleeding from the rectum or blood in or on the stool
- Change in bowel habits
- Stools that are more narrow than usual
- General problems in the abdomen, such as bloating, fullness or cramps
- Diarrhea, constipation or a feeling in the rectum that the bowel movement is not quite complete
- Weight loss for no apparent reason
- Being tired all the time
- Vomiting

**If you have any of these symptoms, see your health care professional.**

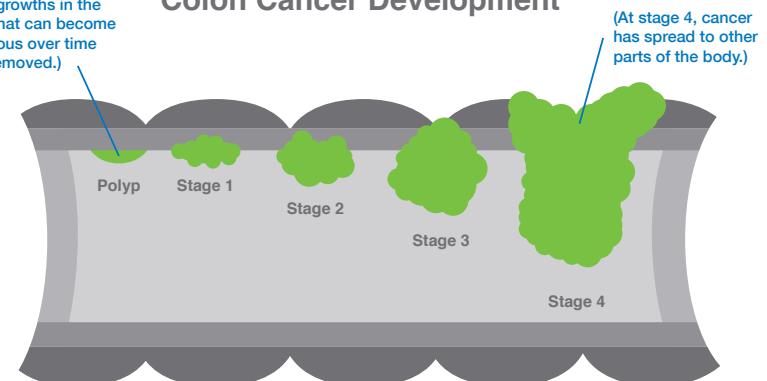
## WHAT ARE THE TREATMENT OPTIONS?

Surgery is the most common treatment. When the cancer has spread, chemotherapy or radiation may be administered before or after surgery.

## Colon and Rectum (Large Bowel)



## Colon Cancer Development



**During a colonoscopy doctors remove polyps if found.**

# Liver Cancer

Every year, over 33,190 people will be diagnosed with liver cancer and nearly 23,000 people will die of the disease. Hepatitis B virus (HBV), Hepatitis C virus (HCV) and cirrhosis are all linked to liver cancer. You can greatly reduce your risk for liver cancer by preventing or diagnosing and treating these diseases early.

## WHO IS AT RISK?

### Men and women who

- Drink alcohol to excess. Drinking alcohol can lead to cirrhosis, or scarring of the liver, which can lead to liver cancer
- Use tobacco products
- Are obese. People who are obese are more likely to have fatty liver disease and diabetes, which are both linked to liver cancer
- Are exposed to cancer-causing chemicals
- Have Hepatitis B virus (HBV) or Hepatitis C virus (HCV)

### You are at risk for HBV if you:

- Have sex with someone who is infected
- Have multiple sexual partners
- Have a sexually transmitted disease
- Are a man who has sex with other men
- Inject drugs
- Live with someone who has chronic HBV
- Have traveled to a country where many people have HBV
- Are exposed to blood at work
- Get long-term hemodialysis
- Were born to a mother with HBV

### You are at risk for HCV if you:

- Were born between 1945 and 1965
- Have ever injected drugs
- Received a blood transfusion or organ transplant before July 1992  
(This is when blood and organs started being screened for HCV.)
- Took medicine for a blood clotting problem before 1987
- Are on long-term hemodialysis
- Are infected with HIV

## HOW CAN I REDUCE MY RISK OR DETECT LIVER CANCER EARLY?

- Get vaccinated for HBV if you are at risk. There is no vaccine for HCV.
- Get tested if you are at risk for HBV or HCV.
- Seek treatment if you are diagnosed with HBV or HCV.
- Do not use intravenous (IV) drugs.
- Practice safe sex.
- Limit alcohol use.
- Don't smoke.
- Maintain a healthy weight.
- Find and treat diseases that increase your risk for liver cancer. Certain inherited diseases can cause cirrhosis, which increases your risk for liver cancer.

## WHAT ARE THE SYMPTOMS?

- Unexpected weight loss
- Loss of appetite
- Nausea or vomiting
- An enlarged liver, felt as a mass under the right side of your ribs
- An enlarged spleen, felt as a mass under the left side of your ribs
- Pain in the abdomen or near the right shoulder blade
- Swelling or fluid build-up in the abdomen
- Itching
- Yellowing of the skin and eyes
- Fever
- Enlarged veins on the belly that become visible through the skin
- Abnormal bruising or bleeding
- Some liver tumors create hormones that affect organs other than the liver. These hormones may cause:
  - Nausea, confusion, constipation, weakness or muscle problems caused by high blood calcium levels
  - Fatigue or fainting caused by low blood sugar levels
  - Breast enlargement and / or shrinking of the testicles in men
  - A red and flushed appearance caused by high counts of red blood cells
  - High cholesterol levels

## WHAT ARE THE TREATMENT OPTIONS?

Liver cancer is treated through surgery, tumor ablation, tumor embolization, radiation therapy, targeted therapy and chemotherapy. Treatment depends on the stage and type of liver cancer.

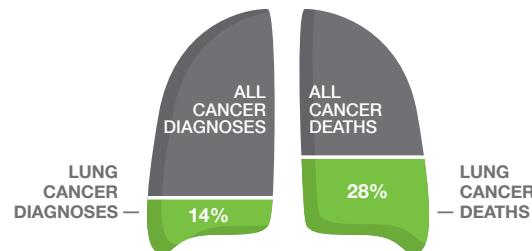
# Lung Cancer

Lung cancer is the leading cause of cancer death for both men and women. Annually, over 224,000 people will be diagnosed with lung cancer and nearly 160,000 will die of the disease. Smoking is the leading cause of lung cancer.

## WHO IS AT RISK?

### Men and women who

- Smoke now or have a history of heavy smoking—even if they quit years ago
- Have been heavily exposed to secondhand smoke
- Have been exposed to indoor and outdoor air pollution
- Have had jobs that exposed them to radiation
- Have been exposed to certain toxic substances, such as arsenic, radon or asbestos
- Have personal or family histories of lung cancer



## WHAT ARE THE SYMPTOMS?

In the early stages, there may be no symptoms. As lung cancer progresses these symptoms may occur:

- A cough that does not go away
- Coughing up blood
- Constant chest pain
- Repeated pneumonia or bronchitis
- Weight loss and loss of appetite
- Hoarseness
- Wheezing or shortness of breath
- Feeling very tired all the time

*Talk with your health care professional if you have any of these symptoms, even if you have none of the risk factors in the section above this one.*

## 1 IN 13 MEN



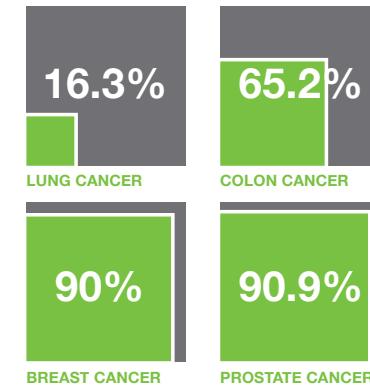
WILL DEVELOP LUNG CANCER



1 IN 16 WOMEN

WILL DEVELOP LUNG CANCER

## THE 5 YEAR SURVIVAL RATE



## HOW CAN I REDUCE MY RISK OR DETECT LUNG CANCER EARLY?

- Don't smoke. If you do smoke, quit.
- Stay away from secondhand smoke.
- Make your home and community smoke-free.
- Eat lots of fruits and vegetables and get more exercise.
- If you're a heavy smoker or former smoker, talk with your health care professional about the pros and cons of screening. There is definitive evidence that screening long-time smokers with low-dose spiral CT scans significantly reduces death from the disease.

## WHAT ARE THE TREATMENT OPTIONS?

Lung cancer treatment depends on the type of cancer (small cell or non-small cell), the size of the tumor and whether or not it has spread.

- In early stages of lung cancer, when the disease has not spread outside the lungs, surgery is the usual treatment. Sometimes chemotherapy is used in combination with surgery.
- For later stages of the disease, radiation and chemotherapy are sometimes used in combination with surgery.
- New, less invasive surgery may help patients recover more quickly with the same results as older, more invasive surgery.

# Oral Cancer

Oral cancer is cancer of the mouth or throat. Every year, over 42,000 people will be diagnosed with oral cancer and over 8,000 will die of the disease. Oral cancer is twice as common in men as in women. Tobacco and alcohol use are among the strongest risk factors for oral cancer. Because some oral pre-cancers and cancers can be found early, it is important to visit your dentist regularly for screenings.

## WHO IS AT RISK?

Men and women who

- Chew or smoke tobacco
- Drink alcohol in excess
- Are exposed to sunlight for long periods of time
- Have a certain type of Human Papillomavirus (HPV)
- Have immune systems that have been weakened by certain medications

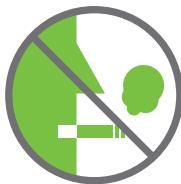
## HOW CAN I REDUCE MY RISK OR DETECT ORAL CANCER EARLY?

- Do not smoke or chew tobacco. Seek help from your medical professional for quitting.
- Limit alcohol to no more than one drink per day.
- Stay out of the sun, especially between 10 am and 4 pm when sunlight is strongest.
- Always use lip balm with SPF 30 or higher.
- Eat fruits and vegetables on a daily basis.
- Have an oral cancer screening by your dentist during your regular check-up.
- Talk with your dentist about an oral self-exam.

## RISK FACTORS



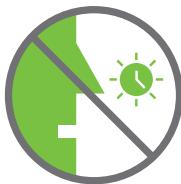
CHEWING  
TOBACCO



SMOKING  
TOBACCO



EXCESSIVE  
ALCOHOL



SUN  
EXPOSURE



## WHAT ARE THE SYMPTOMS?

- White or red patches on lips, gum, tongue or mouth lining
- A lump which can be felt inside the mouth or on the neck
- Pain or difficulty chewing, swallowing or speaking
- Hoarseness lasting a long time
- Numbness or pain in any area of the mouth that does not go away
- Swelling of the jaw
- Loosening of teeth
- Difficulty wearing dentures
- Bleeding in the mouth
- A sore on the lips or in the mouth that doesn't go away
- An earache that does not go away

*If you have any of these symptoms, see your dentist right away.*

## WHAT ARE THE TREATMENT OPTIONS?

Surgery, radiation, chemotherapy and newer targeted therapies may be used alone or in combination.

# Prostate Cancer

Each year, nearly 233,000 men will be diagnosed with prostate cancer and over 29,000 will die from the disease. Most prostate cancer is diagnosed in men older than 65.

## WHO IS AT RISK?

### Men who

- Are over age 50
- Are African-American
- Have a family history of prostate cancer

## HOW CAN I REDUCE MY RISK OR DETECT PROSTATE CANCER EARLY?

- Lower your risk of prostate cancer by maintaining a healthy weight and exercising.
- Never smoke, or quit if you do smoke.
- At age 50, start talking with your health care professional about the pros and cons of getting tested or not getting tested. Early detection of prostate cancer followed by prompt treatment saves lives, but some men are treated for cancers that will never cause them harm and they must live with the side effects and complications of this treatment.
- If you are an African-American man, or if you have a close relative (father, son or brother) who had prostate cancer before age 65, start talking to your doctor about prostate cancer when you are 45. If more than one close male relative had prostate cancer before 65, start that talk when you turn 40.



**The total number of men in the U.S. diagnosed with prostate cancer each year is equal to the population of Orlando, Florida.**

## WHAT ARE THE SYMPTOMS?

There are usually no symptoms in the early stages. Some men experience symptoms that include:

- Urinary problems (not being able to urinate, having trouble starting or stopping urine flow, having a weak or interrupted urine flow, feeling pain or a burning sensation while urinating)
- Blood in the urine
- Painful or difficult erection
- Pain in lower back, pelvis or upper thighs



## WHAT ARE THE TREATMENT OPTIONS?

Current treatment options vary, depending on the stage of the cancer and other medical conditions of the individual.

- Treatments include surgery, radiation or hormone therapy. Sometimes treatments are combined.
- Some prostate cancers grow very slowly and do not require immediate treatment. In these cases, men and their doctors may decide on "active surveillance" with regular follow-ups, usually every three to six months. This option should be open to reassessment, as a man's condition or concerns may change.

# Skin Cancer

Skin cancer is the most common cancer diagnosis and is also the most preventable cancer. Most skin cancer is caused by damage from the sun's ultraviolet (UV) radiation rays. Annually, over 76,000 people will be diagnosed with melanoma—the most dangerous type of skin cancer—and almost 10,000 will die of the disease. Every year, more than two million people are diagnosed with non-melanoma skin cancer—either basal cell or squamous cell carcinoma.

Research on the benefits of vitamin D (made by the skin from sunlight) indicates that just a brief exposure of your face, arms and hands to the sun is sufficient—about 15 minutes a day, three days per week. Talk to your health care professional about Vitamin D and your health.

## WHO IS AT RISK?

**Men and women who**

- Spend time in the sun or use sun lamps or tanning booths
- Smoke
- Have blond, red or light brown hair and blue, gray or green eyes
- Have fair skin, freckles or skin that burns easily
- Have personal or family histories of skin cancer
- Have certain types of genetic problems that affect the skin
- Have been treated with radiation
- Have a weakened immune system
- Have several moles on their bodies, especially if they have had some moles since they were born
- Have odd moles or one or more large colored spots on their skin
- Had contact with certain chemicals, such as arsenic in drinking water
- Have skin damaged from injury or from long-term inflammation
- Have Human Papillomavirus (HPV)
- Had sunburns as children. Children who sustain sunburns may have an increased risk of skin cancer later in life

***Men are more likely than women to get non-melanoma skin cancer.***



People who have paler skin tones are more likely to develop melanoma than those with darker complexions. However anyone, regardless of skin color, may develop skin cancer. The risk for skin cancer increases as people get older.

## HOW CAN I REDUCE MY RISK OR DETECT SKIN CANCER EARLY?

- Avoid sun exposure when it is brightest and do not ever use sun lamps or tanning beds.
- Always use sunscreen and lip balm with UVB and UVA protection with SPF 30 or more, even on cloudy days.
- Apply an ounce of sunscreen—a palm full—20 minutes before going outside and reapply every two hours if in continuous sun.
- Wear sunglasses that have been treated to absorb UV radiation, a wide-brimmed hat and clothing made of tightly-woven material with long sleeves.
- Protect children from the sun. Childhood sunburns may increase the risk of skin cancer later in life.
- Examine your skin once a month. Tell your health care professional about any changes.
- Have your health care professional examine your skin annually.

## WHAT ARE THE SYMPTOMS?

- A sore that does not heal
- A mole or other growth you have not noticed before
- A change in the border of a spot, spread of color, redness or swelling around the area
- A small, smooth, shiny, pale or waxy lump that may bleed
- Large areas with oozing or crust
- A flat red spot or a lump that is scaly or crusty
- Itchiness, tenderness or pain from a mole or elsewhere on your skin
- A brown or black colored spot with uneven edges

## ABCDE RULE

When looking at moles, remember the **ABCDE rule**:

**Asymmetry (one half of the mole doesn't match the other)**



**Border irregularity**



**Color that is not uniform**



**Diameter greater than 6 mm (about the size of a pencil eraser)**



**Evolving size, shape or color**

## WHAT ARE THE TREATMENT OPTIONS?

Most skin cancers found early can be treated successfully. Treatment depends on the type of skin cancer and the stage of the disease.

## COMMON TREATMENT FOR SKIN CANCER:

- Surgery
- Biological drug treatments
- Various chemotherapies
- Radiation
- Immunotherapy



# Testicular Cancer

Annually, nearly 9,000 men will be diagnosed with testicular cancer, and over 10% will die of the disease. It is the most common cancer in men ages 15 to 34. Testicular cancer is usually curable when found early and treated appropriately.

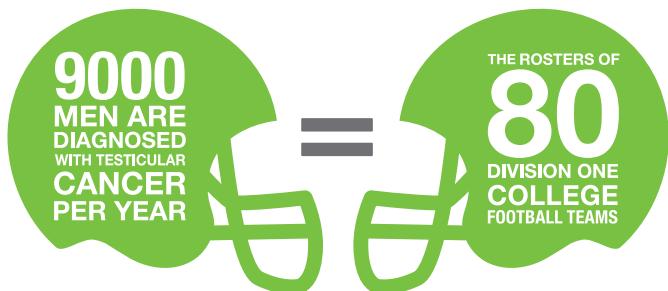
## WHO IS AT RISK?

### Men who

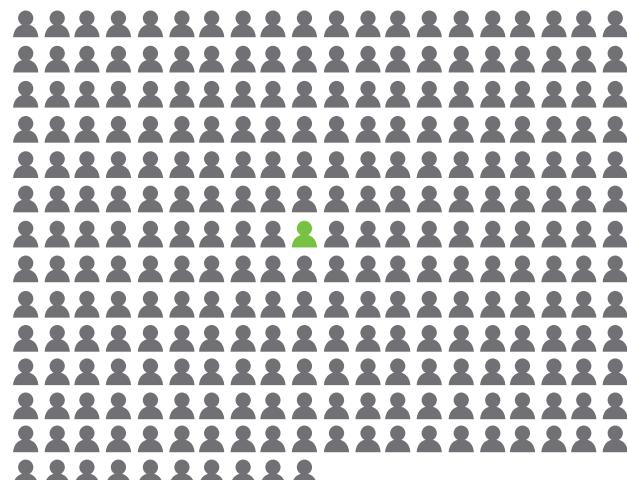
- Have a personal history of undescended testicle(s) at birth or other abnormal development of the testes
- Are infected with Human Immunodeficiency Virus (HIV)
- Have a genetic problem caused by having an extra X chromosome
- Have a personal or family history of testicular cancer
- Are Caucasian

## HOW CAN I REDUCE MY RISK OR DETECT TESTICULAR CANCER EARLY?

- Ask your health care professional to examine your testicles as part of your routine physical exam.
- Talk with your health care professional about the testicular self-exam. It is one way to get to know what is normal for you. If you notice a change, talk with your health care professional right away.
- If you have a son who was born with an undescended testicle, talk with his health care professional about correcting it before he reaches puberty.



A man's lifetime risk of developing Testicular Cancer is **1 in 270**.



## WHAT ARE THE SYMPTOMS?

Talk with your health care professional right away if you have any of these symptoms:

- A painless lump, enlargement or swelling in either testicle
- A change in how the testicle feels
- Dull aching in the lower abdomen, back or groin
- Pain or discomfort in a testicle or in the scrotum
- Sudden collection of fluid in the scrotum
- Feeling of heaviness in the scrotum

## WHAT ARE THE TREATMENT OPTIONS?

Treatment depends on the stage and type of cancer and the size of the tumor. It also depends on whether the cancer has spread beyond the testicle. Treatment can include surgery, radiation and chemotherapy, alone or in combination.

# Viruses and Cancer

Certain viruses have been linked to different types of cancer. Three of the known viruses are Human Papillomavirus (HPV), Hepatitis B (HBV) and Hepatitis C (HCV). You can be immunized (get a shot) to protect yourself and your children against these viruses.

## HUMAN PAPILLOMAVIRUS (HPV)

Human Papillomavirus, also known as HPV, consists of over 150 related viral strains. Many of the HPV strains are spread through skin to skin contact during vaginal, anal and oral sex. High-risk strains of HPV have increasingly been found to cause many types of cancer.

Each year, more than 20,000 HPV-associated cancers are diagnosed in women and nearly 12,000 are diagnosed in men. Cervical cancer is the most common HPV-associated cancer in women and oropharyngeal cancers are the most common in men. Studies show that HPV is responsible for more than 90% of anal and cervical cancers and more than 50% of vaginal, vulvar and penile cancers.

Types of cancer associated with HPV include:

- Cervical cancer
- Vulvar cancer
- Vaginal cancer
- Penile cancer
- Anal cancer
- Oropharyngeal cancers (cancers of the back of the throat, including the base of the tongue and tonsils)

Women who have had many sexual partners or unprotected sex with uncircumcised men are at higher risk for HPV. Men who are uncircumcised and have many sexual partners are also at higher risk.

## WHAT ARE THE SYMPTOMS?

HPV usually has no symptoms, unless it is an HPV type that causes genital warts. Sometimes HPV infections that are not attacked and cleared by the immune system can lead to cell changes that may develop into cancer over many years.

## WHAT ARE THE TREATMENT OPTIONS?

There is no treatment for HPV itself, which makes vaccination even more

important. However, there are treatments for cell changes that HPV can cause. Talk to your doctor about getting screened. Some screening tests can detect cell changes caused by HPV that can be treated before they become cancer.

*To learn more about risk factors and risk reduction, see Cervical Cancer on Page 9.*



## HEPATITIS B (HBV) and HEPATITIS C (HCV)

Both Hepatitis B (HBV) and Hepatitis C (HCV) have been linked to liver cancer. While there is currently no vaccination for HCV, you can get tested for its presence and you can get vaccinated against HBV if you are at risk.

HBV and HCV can be spread from person to person through unprotected sex, sharing contaminated needles (such as through drug use) or childbirth. They may be passed on through blood transfusions, but this is rare today.

## WHAT ARE THE SYMPTOMS?

HBV is more likely to cause symptoms, such as a flu-like illness and a yellowing of the eyes and skin (jaundice). But most people recover completely from an HBV infection within a few months. Only a very small percentage of adults remain infected (and have a higher risk for liver cancer). Infants and small children who become infected have a higher risk of becoming chronic carriers.

HCV, on the other hand, is less likely to cause symptoms. But most people with HCV develop chronic infections, which are more likely to lead to liver damage or even cancer. The good news is that there is more than one treatment for HCV, which can often cure you and reduce your risk of liver cancer.

*To learn about risk factors and risk reduction for HBV and HCV, see Liver Cancer on Page 15.*

## THIS GUIDE USES INFORMATION FROM THE FOLLOWING SOURCES:

American Cancer Society, American College of Gastroenterology,  
World Cancer Research Fund (WCRF), Archives of Dermatology,  
Centers for Disease Control and Prevention, Institute of Medicine,  
National Cancer Institute, National Institutes of Health,  
The New England Journal of Medicine, Skin Cancer Foundation