

**STOP  
CANCER  
BEFORE  
IT  
STARTS!**

**A GUIDE TO  
PREVENT  
CANCER**

**prevent & cancer**<sup>®</sup>  
FOUNDATION

# ABOUT THE PREVENT CANCER FOUNDATION®

The mission of the Prevent Cancer Foundation® is saving lives across all populations through cancer prevention and early detection.

The vision is to ***Stop Cancer Before It Starts!***®

The Prevent Cancer Foundation® is one of the nation's leading voluntary health organizations and the only U.S. nonprofit focused solely on cancer prevention and early detection. Founded in 1985, it has catapulted cancer prevention to prominence and fulfills its mission through research, education, outreach and advocacy.

The Foundation is at the forefront of cancer prevention and early detection and has been referred to as "the candle that ignited a bonfire."

The Foundation carries out its mission by focusing its work in four areas:

**RESEARCH** The Foundation awards research grants and fellowships to promising early-career scientists for innovative research in cancer prevention and early detection.

**EDUCATION** The Foundation is committed to providing all people with the information they need to help keep themselves and their families cancer-free through healthy lifestyle choices and medical screenings.

**OUTREACH** In order to reach the greatest number of people, the Foundation utilizes its unique resources, events and partnerships to implement lifesaving cancer prevention and early detection programs.

**ADVOCACY** The Foundation advocates for laws and funding that prioritize prevention and early detection and support the needs of cancer patients and their families.

## WHY YOU SHOULD CARE

Nearly 1,736,000 Americans will be diagnosed with cancer this year and more than 606,800 will die of these diseases. However, research suggests that **up to 50% of cancer cases and about 50% of cancer deaths are preventable with the knowledge we have today.**

Putting what we know about prevention into action may also have a positive effect on the cost of cancer care, which is projected to reach at least \$158 billion in the year 2020.

***Cancer prevention and early detection are now more important than ever.***

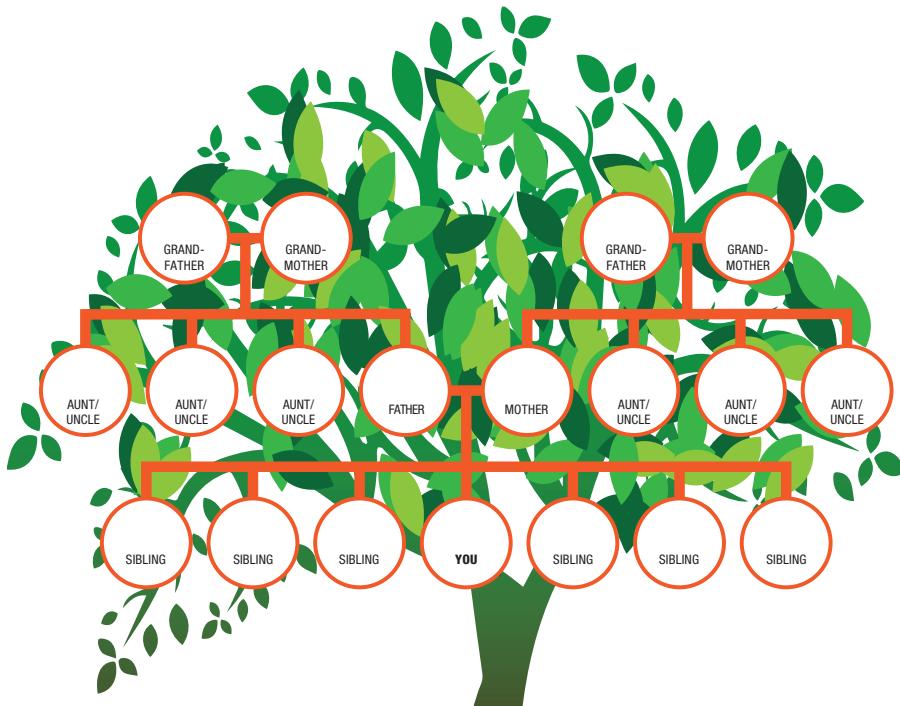
# GET THE FACTS

This guide is a great place to start learning how to reduce your cancer risk. To learn more, visit [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 health risks.



- For each blood relative, note in the circle 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 any family member who is deceased.

*This information will help you and your health care professional decide which cancer screenings you may need and when to begin screening. Unless otherwise noted, this guide follows screening guidelines of the American Cancer Society.*

# WAYS TO PREVENT CANCER



## DON'T USE TOBACCO

Tobacco use has been linked to many types of cancer, including lung, colorectal, breast, throat, cervical, bladder, mouth and esophageal cancers. It's best to never start using tobacco, but if you do use tobacco products, it's never too late to quit.

About 90% of all lung cancers are related to smoking. Non-smokers who are exposed to secondhand smoke are also at risk for lung cancer and other conditions. More research is needed on e-cigarettes, but the Prevent Cancer Foundation® stands firm in discouraging the use of all tobacco products and e-cigarettes.



## PROTECT YOUR SKIN FROM THE SUN

Skin cancer is the most common—and the most preventable—cancer in the United States. Exposure to the sun's ultraviolet radiation causes most skin cancers. Be sure to use adequate sun protection year-round. Never use indoor tanning beds.



## EAT A PLANT-BASED 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

Obesity is linked to many cancers, including endometrial, liver, kidney, pancreatic, colon, post-menopausal breast cancer and more.

Getting at least 30 minutes of physical activity at least 5 days a week can make a big difference in your general health and well-being.

Physical inactivity has been linked to colorectal cancer, breast cancer and endometrial cancer, and weaker links have been found for others, too. Add exercise to your routine to reduce stress, increase energy, boost your immune system, control your weight and reduce your risk of cancer.



## LIMIT ALCOHOL

Drinking alcohol is linked to several cancers: breast, colorectal, esophageal, oral and liver cancers. If you drink, limit your drinking to one drink a day if you are a woman or two a day if you are a man. Even drinking small amounts may increase your risk of cancer.



## PRACTICE SAFER SEX AND AVOID RISKY BEHAVIORS

Many types of the human papillomavirus, also known as HPV, are spread through vaginal, anal or oral sex. Using a condom the right way every time can help protect you, but it is not 100% protection. Certain types of HPV can cause cervical and oropharyngeal cancer and at least four other types of cancer.

The hepatitis B virus and hepatitis C virus can be spread from person to person through sex or through blood. Hepatitis B or C can cause long-term liver infection that can increase your chance of developing liver cancer.



## GET IMMUNIZED (HPV & HEPATITIS B VACCINES)

Certain viruses that have been linked to cancer can be protected against through vaccination. One of them is HPV. Talk to your health care professional about the age recommendations for the HPV vaccine.

Another of the viruses is hepatitis B. In the U.S., most liver cancers are linked to hepatitis B or hepatitis C. While there is no vaccine at this time for hepatitis C, a hepatitis B vaccine is available and is recommended for babies, older children who were not vaccinated earlier and adults who are at risk for hepatitis B infection.



## KNOW YOUR FAMILY MEDICAL HISTORY AND GET RECOMMENDED CANCER SCREENINGS

Share your family history with your health care professional and discuss cancer screening. Some tests can help detect cancer early, when successful treatment is more likely, and some can also detect precancerous conditions before they become cancer. While screening has been proven to save lives, screening guidelines are not always “one size fits all.”

# BREAST CANCER

Each year, more than 268,600 women and more than 2,600 men are diagnosed with invasive breast cancer (cancer that has spread from where it started in the breast into surrounding healthy tissue) and roughly 42,260 die of the disease.

Screening saves lives. When detected early, the five-year survival rate for breast cancer is 99%.

## WHO IS MOST AT RISK?



Women who:

- Began their menstrual periods before age 12 or entered menopause after age 55.
- Are currently using or have recently used birth control pills.
- Have never had children or had their first child after age 30.
- Have used hormone replacement therapy (HRT) with estrogen and progesterone for more than 10 years.
- Have mutations of BRCA1, BRCA2 or PALB2 genes.
- Have family histories of breast, colorectal or ovarian cancer.

## REDUCE YOUR RISK



Breastfeeding may lower a woman's risk.



Never smoke. If you do, quit.



Exercise at least 30 minutes, at least 5 days a week.



Women or 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 family histories 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.

**NOTE:** Men who have BRCA2 mutations have an increased risk of breast cancer. This may also be true for men who have BRCA1 mutations.



**Drinking alcohol is linked to breast and several other cancers. If you drink, limit your drinking to one drink a day if you are a woman or two a day if you are a man. Even drinking small amounts may increase your risk of cancer.**



**Maintain a healthy weight.**

## SYMPTOMS

If you notice any of the following symptoms, take action and 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 such as dimpling, puckering or redness
- A breast that feels warm or swollen

## TREATMENT OPTIONS

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

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

# BREAST CANCER CONTINUED

Genetic testing is an option for those who want more information about their cancer risk. Women who test positive for BRCA1, BRCA2 or PALB2 gene mutations are at increased risk for breast or ovarian cancer. Only 5% to 10% of cancer cases are caused by hereditary gene mutations.

Men with BRCA2 gene mutations also have increased risk of breast cancer. (This may also be true of BRCA1 mutations.)

If you are considering genetic testing, you should meet with a genetic counselor. (Check with your insurance company first to see if this is covered by your insurance.)

**NOTE:** This information refers to predictive genetic testing only, which is different from tumor profiling (also known as genomics or molecular profiling).

Tumor profiling is done after a cancer diagnosis to determine mutations that may affect how the patient responds to certain treatments.

## BREAST CANCER SCREENINGS

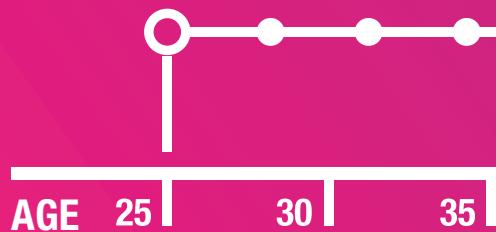
*Your risk increases if you have several close relatives who have been diagnosed with breast cancer or if your mother was diagnosed with breast cancer before age 50.*

## BREAST SCREENING GUIDE FOR WOMEN

**Speak with your health care professional about screening.**

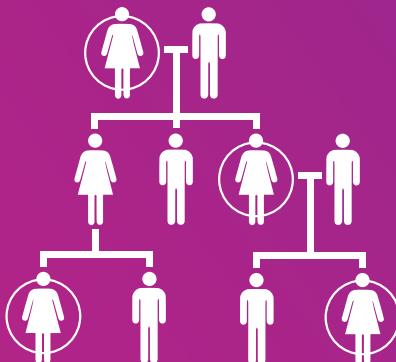
### THREE-YEAR CHECK-UP

From age 25 to 39, talk with your health care professional at least once every three years for risk assessment, risk reduction counseling and a clinical breast exam.



**Source:**  
National Comprehensive Cancer Network

# KNOW YOUR FAMILY HISTORY



## ANNUAL MAMMOGRAM and/or 3D MAMMOGRAM (TOMOSYNTHESIS)

### HORMONE REPLACEMENT THERAPY



At menopause, talk with your health care professional about whether you should consider hormone replacement therapy

Several organizations encourage beginning annual mammograms at age 40.

Using both mammography and 3D mammography improves accuracy; combining them still falls within FDA limits of radiation for standard mammography.

Many women have dense breast tissue, which may make it harder to see cancers with mammography; however, digital mammography has been shown to be more accurate (than film) in younger women with dense breasts. There is some evidence that adding ultrasound to mammography may improve accuracy.

Speak with your health care professional about which screening method is right for you.

## ANNUAL CHECK-UP

Beginning at age 40, get screened annually if you are at average risk. Discuss the benefits and risks of screening tests with your health care professional.

40

45

50

55

60

65

*If you are at high risk, talk with your health care professional about beginning annual screening mammograms and magnetic resonance imaging (MRI) at a younger age.*

# CERVICAL CANCER

Each year, more than 13,200 women are 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 more than 4,200 women die of the disease. Today, lives are saved because of regular screening with Pap tests (also called Pap smears) or Pap tests combined with HPV tests.

## HPV VACCINE

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

All young people who are age 11 or 12 should get two shots of the HPV vaccine six to twelve months apart. A third shot may be needed if vaccination is done at a later age. Ask your health care professional about other situations requiring three shots. (Read more about other types of cancer that are caused by HPV on page 30.)

In 2018, the FDA approved the HPV vaccine for women or men ages 26–45.

## WHO IS MOST AT RISK?



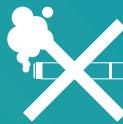
Women who:

- Are over 30 and have a human papillomavirus (HPV) infection that hasn't cleared. HPV is a common sexually-transmitted virus that can cause at least six types of cancer, including cervical cancer.
- Began having sex at an early age.
- Have had multiple sexual partners.

## REDUCE YOUR RISK



Talk with your health care professional about the HPV vaccine.



Never smoke. If you do, quit.

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.

- Do not have regular cervical cancer screenings.
- 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.



**Practice safer sex and use a new condom the right way every time.**



**Begin regular cervical cancer screening at age 21. Women in their twenties should have a Pap test every three years.**

From ages 30–65, the preferred way to screen is with a Pap test combined with an HPV test every 5 years (known as co-testing), or a Pap test every 3 years.

Beginning at age 65, talk with your health care professional about whether you still need to be screened.

## SYMPTOMS

Precancerous conditions of the cervix do not usually cause symptoms and are only detected with a pelvic exam and a Pap test.

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

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

## 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 your 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 death overall. Each year, more than 145,600 people are diagnosed with colorectal cancer and more than 51,000 die of the disease. 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 it can be detected early when successful treatment is more likely.

Colorectal cancer is linked to getting older. However, colorectal cancer in adults younger than age 50 is on the rise. Even so, it's seen more in people age 50 and over.

## WHO IS MOST AT RISK?



Women or men who:

- Are age 50 or older.
- Smoke.
- Are overweight or obese, especially those who carry fat around their waists.
- Are not physically active.
- Have type 2 diabetes.
- Drink alcohol in excess, especially men.

## REDUCE YOUR RISK —



Exercise at least 30 minutes, at least 5 days a week.



Drinking alcohol is linked to colorectal and several other cancers. If you drink, limit your drinking to one drink a day if you are a woman or two a day if you are a man. Even drinking small amounts may increase your risk of cancer.



Never smoke. If you do, quit.

- Eat a lot 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 colorectal polyps.
- Have personal histories of inflammatory bowel disease (such as ulcerative colitis or Crohn's disease).



**Eat less red meat and cut out processed meat.**



**Maintain a healthy weight and waist size.**



**Eat lots of fruits, vegetables, beans and whole grains.**



**Get screened.**

## SYMPTOMS

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

## TREATMENT OPTIONS

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

# COLORECTAL CANCER CONTINUED

Start getting screened at age 45 if you're at average risk for colorectal cancer. If you're at increased risk, you may need to start regular screening at an earlier age and be screened more often.

Continue screening to age 75 if you are in good health, with a life expectancy of 10 years or more. If you are ages 76–85, talk with your health care professional about whether to continue screening. After age 85, you should not get screened.

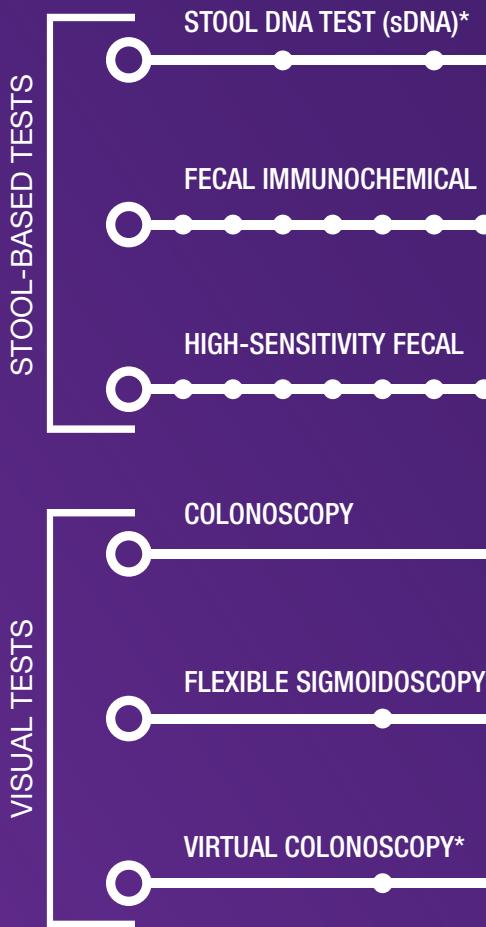
A colonoscopy is the “gold standard” for colon cancer screening, but the “best test” is the one that gets done.

## SCREENING GUIDELINES

### COLON TEST CHART

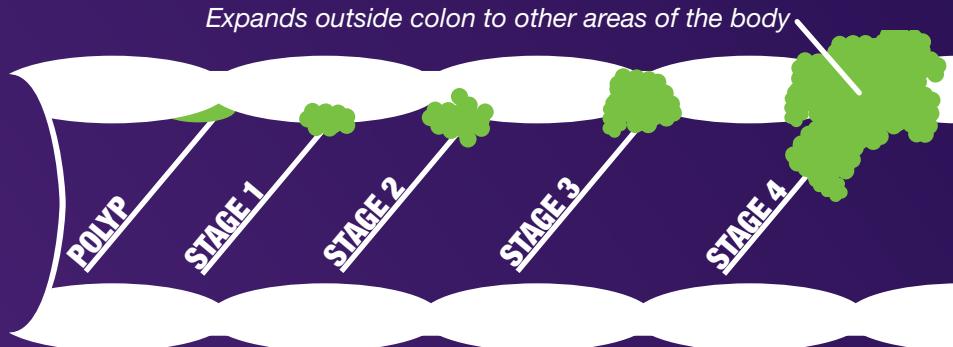
Speak with your health care professional about which screening option is right for you.

#### CHOOSE ONE OF THESE OPTIONS



45

50



Every 3 years

TEST (FIT)\*

Every year

OCCULT BLOOD GUAIAC TEST (gFOBT)\*

Every year

Every 10 years

\*

Every 5 years

Every 5 years

55

60

65

70

\*Follow up a positive test with a timely colonoscopy.

# LIVER CANCER

Each year, more than 42,000 people are diagnosed with liver cancer and nearly 31,800 people die of the disease.

Chronic infection with hepatitis B or hepatitis C is a leading cause of liver cancer.

You can greatly reduce your risk for liver cancer by protecting yourself from these viruses or diagnosing and treating the infections early.

## 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.

## WHO IS MOST AT RISK?



Women or men 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 Type 2 diabetes, which are both linked to liver cancer.
- Are exposed to cancer-causing chemicals.
- Have hepatitis B or hepatitis C.



## REDUCE YOUR RISK



Get vaccinated for hepatitis B.



Get tested if you are at risk for hepatitis B or hepatitis C.



Seek treatment if you are diagnosed with hepatitis B or hepatitis C.



Never smoke. If you do, quit.



Do not share needles to inject drugs.



Practice safer sex and use a new condom the right way every time.

## YOU ARE AT RISK FOR HEPATITIS B IF YOU:

- Have had sex with someone who has hepatitis B.
- Have had multiple sexual partners.
- Have a sexually-transmitted disease.
- Are a man who has had sex with other men.
- Have shared needles to inject drugs.
- Live with someone who has chronic hepatitis B.
- Have traveled to (or have come from) a country where many people have hepatitis B.
- Are a health care professional or first responder exposed to blood at work.
- Are on long-term hemodialysis.
- Were born to a mother with hepatitis B.

## YOU ARE AT RISK FOR HEPATITIS C IF YOU:

- Were born between 1945 and 1965.
- Have shared needles to inject drugs.
- Received a piercing or tattoo without proper infection control.
- Have had sex with someone who has hepatitis C (less common than with hepatitis B).
- Were born to a mother with hepatitis C (less common than with hepatitis B).
- Are a health care professional or first responder exposed to blood at work.
- Received a blood transfusion or organ transplant before July 1992.
- Took medicine for a blood-clotting problem before 1987.
- Are on long-term hemodialysis.
- Are infected with human immunodeficiency virus (HIV).

## 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
- Abnormal bruising or bleeding
- Enlarged veins on the belly that become visible through the skin

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

# LUNG CANCER

Lung cancer is the leading cause of cancer death for both men and women. Each year, more than 228,000 people are diagnosed with lung cancer and nearly 143,000 die of the disease. Smoking is the leading cause of lung cancer, and 80% or 90% of lung cancer deaths are related to cigarette smoking.

## 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 lasting a long time
- 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 listed.

## WHO IS MOST AT RISK?



Women or men 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 or outdoor air pollution.

## REDUCE YOUR RISK



**Never smoke. If you do, quit.**

If you're a heavy smoker or former smoker, talk with your health care professional about the pros and cons of screening. It's recommended that current or former smokers with 30 pack-year histories be screened. There is definitive evidence that screening long-time smokers with low-dose spiral CT significantly reduces lung cancer deaths.

## 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.

 Stay away from secondhand smoke.

 Eat lots of fruits and vegetables.

 Don't rely on supplements: beta-carotene supplements increase risk of lung cancer.

 Make your home and community smoke-free.

# ORAL CANCER

Oral cancer is cancer of the mouth or throat. Each year, nearly 53,000 people are diagnosed with oral cancer and 10,900 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.

Oropharyngeal cancer refers to cancer of the back of the throat, including the base of the tongue and tonsils. For more information on the human papillomavirus (HPV) and oropharyngeal cancer, see page 30.

Because some oral precancers and cancers can be found early, visit your dentist regularly for oral cancer screening.

## WHO IS MOST AT RISK?



Women or men who:

- Chew or smoke tobacco.
- Drink alcohol in excess.
- Are exposed to sunlight for long periods of time.



## REDUCE YOUR RISK —



**Do not smoke or chew tobacco. If you do, quit.**



Drinking alcohol is linked to oral and several other cancers. If you drink, limit your drinking to one drink a day if you are a woman or two a day if you are a man. Even drinking small amounts may increase your risk of cancer.



**Eat fruits and vegetables.**

- Have a certain type of human papillomavirus (HPV).
- Have immune systems that have been weakened by certain medications.



Avoid sun exposure, especially between 10 a.m. and 4 p.m., when sunlight is strongest.



Always use lip balm with SPF 30 or higher with UVA and UVB protection.



Get screened and talk with your dentist about an oral exam.

## 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
- Changes in how dentures fit the mouth
- Bleeding in the mouth
- A sore on the lips or in the mouth that does not go away
- An earache that does not go away

If you have any of these symptoms, see your dentist or other health care professional right away.

## TREATMENT OPTIONS

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

# PROSTATE CANCER

Each year, more than 174,600 men are diagnosed with prostate cancer and more than 31,600 die from the disease. Most prostate cancers are diagnosed in men older than 65. For localized or regional prostate cancers, the five-year survival rate is nearly 100%.

## WHO IS MOST AT RISK?



Men who:

- Are age 50 or older.
- Are African American. African American men are more likely to have prostate cancer than white or Hispanic men.

## REDUCE YOUR RISK —



If you are at average risk, start talking to your doctor at age 50 about the pros and cons of prostate cancer screening.

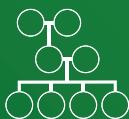
Early detection of prostate cancer followed by prompt treatment saves lives, but some men are treated for prostate cancers that will never cause them harm, and they must live with any side effects or complications of the treatment.



Never smoke. If you do, quit.

A recent study of men who stopped smoking before being diagnosed with prostate cancer shows that quitting may slow the development of cancer or lessen its severity.

- Have BRCA1 or BRCA2 mutations or Lynch syndrome.
- Have family histories of prostate cancer.



**Know your family history.** 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.



Maintain a healthy weight.

## SYMPTOMS

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

- Urinary problems, such as 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

Symptoms like these may also be caused by other health problems, including an enlarged prostate or benign prostatic hyperplasia (BPH).

## TREATMENT OPTIONS

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

- 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, you and your doctor may decide on “active surveillance” with regular follow-ups, usually every three to six months. This option should be open to reassessment, as your condition or concerns may change.

# SKIN CANCER

Skin cancer is the most common cancer diagnosis and also the most preventable cancer. Most skin cancers are caused by damage from the sun's ultraviolet (UV) radiation. Each year, more than 96,400 people are diagnosed with melanoma—the most dangerous type of skin cancer—and more than 7,200 die of the disease. It is estimated that more than three million people are diagnosed with non-melanoma skin cancer—either basal cell or squamous cell carcinoma—each year.

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

Anyone, regardless of skin color, may develop skin cancer. The risk of skin cancer increases as you get older.

## WHO IS MOST AT RISK?



Women or men 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.

## REDUCE YOUR RISK



Avoid sun exposure, especially between 10 a.m. and 4 p.m., when sunlight is strongest.



Always use sunscreen SPF 30 or higher with UVA and UVB protection. Reapply every two hours if you stay in the sun, even on cloudy days.



Protect children from the sun.



Wear protective clothing, headwear and eyewear when possible.

- Have been treated with radiation.
- Have weakened immune systems.
- Have several moles on their bodies, especially if they have had some of them since birth.
- Have odd moles or one or more large colored spots on the skin.
- Have 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.



**Never use tanning beds or sun lamps.**



**Always use lip balm with SPF 30 or higher with UVA and UVB protection.**



**Examine your skin once a month. Tell your health care professional about skin changes.**



**It's a good idea to have your health care professional examine your skin annually.**

## **SYMPTOMS**

- A sore that does not heal
- A mole or other skin 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

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

# SKIN CANCER CONTINUED

## 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

Current treatment options include:

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

# ABCDE RULE

USE THIS  
RULE WHEN  
LOOKING AT  
MOLES

# A

## Asymmetry



NORMAL



ABNORMAL

# B

## Border irregularity



NORMAL



ABNORMAL

# C

## Color that is not uniform



NORMAL



ABNORMAL

# D

## Diameter greater than 6mm



NORMAL



ABNORMAL

# E

## Evolving size, shape or color

# TESTICULAR CANCER

Each year, more than 9,500 men are diagnosed with testicular cancer, and more than 400 die of the disease. Testicular cancer is not a common cancer diagnosis. Although men of any age may develop testicular cancer, it is most frequently diagnosed in men ages 20–34.

Testicular cancer is usually curable when found early and treated appropriately; treatment is often successful even at later stages.

## WHO IS MOST AT RISK?



Men who:

- Have personal histories of an undescended testicle at birth or other abnormal development of the testes.
- Are infected with human immunodeficiency virus (HIV).

## REDUCE YOUR RISK



Ask your health care professional to examine your testicles as part of your routine physical exam.



**Family health:** 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.

- Have a genetic problem caused by having an extra X chromosome.
- Have personal or family histories of testicular cancer.
- Are white.



**Self-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.

## 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

## 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 is usually successful and can include surgery, radiation and chemotherapy, alone or in combination.

# VIRUSES AND CANCER

## HUMAN PAPILLOMAVIRUS (HPV)

HPV consists of many viral types, and many of them are spread through vaginal, anal or oral sex. Certain types of HPV can cause these cancers:

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

Each year, more than 42,700 HPV-related cancers are diagnosed. Cervical cancer is the most common HPV-related cancer in women and oropharyngeal cancer is the most common in men. Studies show that HPV is probably responsible for more than 90% of anal and cervical cancers and more than 70% of vaginal, vulvar, penile and oropharyngeal cancers.

## WHO IS MOST AT RISK

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

## TAKE ACTION

The HPV vaccine is recommended for all kids ages 11 or 12, and a “catch up” vaccine may be an option for teens and young adults to age 26. In 2018, the FDA approved the HPV vaccine for women or men ages 26–45. There is no treatment for HPV infection, which makes vaccination even more important. However, some screening tests can detect cell changes caused by HPV, and those changes can be treated before they become cancer. Talk to your health care professional about the vaccine and about getting screened.

To learn more about risk factors and risk reduction for cervical cancer, see page 10.

## REDUCE YOUR RISK



Get vaccinated against HPV and hepatitis B.



Get screened for HPV and hepatitis C. Treatment options are available for hepatitis C.

## HEPATITIS B & HEPATITIS C

Hepatitis B and hepatitis C have been linked to liver cancer. You can be vaccinated against hepatitis B. While there is currently no vaccine for hepatitis C, you can get tested for its presence and, should you test positive, treated for the virus.

Most liver cancer cases are related to chronic infection with the hepatitis B or hepatitis C virus. Many people do not know they have these viruses and thus do not receive treatment that can help prevent them from developing liver cancer. In the 10 years between 2010 and 2020, an estimated 150,000 people in the U.S. will have died (or may die) from liver disease or liver cancer linked to chronic hepatitis B or hepatitis C infection. To learn more about liver cancer, see page 16.

## WHO IS MOST AT RISK

You can become infected with hepatitis B or hepatitis C through sexual contact, contact with blood, such as sharing needles or syringes, or from mother to child during birth (more likely for hepatitis B). People born between 1945 and 1965 are at higher risk for hepatitis C infection.

## TAKE ACTION

All children should be vaccinated against hepatitis B, as well as adults who are at risk. While there is currently no vaccine for hepatitis C, you can get tested for its presence, and, if it is found, treated, which can cure the infection. There are also some treatments for hepatitis B.



Practice safer sex and use a new condom the right way every time.



Do not share needles to inject drugs.



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**[www.preventcancer.org](http://www.preventcancer.org)**



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*Sincere appreciation to No-Shave November for their generous support in the creation of this guide.*