

;



Offered to you by:



Seven Strategies for Cancer Prevention

Introduction

Each year, more than 1 million people in the United States are diagnosed with cancer. However, there are many things you can do to reduce your risk of cancer, no matter what your age. This information describes strategies to help you make more healthful decisions. If you have questions after reading this information, discuss them with your health care provider.

Cancer Basics

Having “cancer” means you could have one of more than a hundred different diseases. Although each disease is different, the mechanism by which cancer works is the same.

Cancer occurs when cells in your body become abnormal and start dividing uncontrollably. Eventually, the abnormal cells accumulate, causing a growth or tumor, which can damage nearby organs and tissues. The abnormal cells can also spread to other areas of your body and cause tumors to grow elsewhere. This spreading is called metastasis (meh-TAS-tuh-sis).

Cancer can occur anywhere in your body. However, some kinds of cancer occur far more frequently than others, and some are more deadly than others. Cancer of the lung, prostate, breast, colon and rectum are the leading causes of cancer deaths in the United States.

Strategy #1: Decide to Be Tobacco-Free

Not using tobacco, or deciding to stop using it, is one of the most important health decisions you can make. Using any type of tobacco, whether it's cigarettes, snuff, pipe tobacco, chewing tobacco or cigars, greatly increases your chance of getting cancer.

Avoiding tobacco in all forms greatly reduces your risk for cancers of the:

- Lung
- Esophagus
- Larynx (voice box)

- Mouth
- Bladder
- Kidney
- Pancreas
- Cervix
- Stomach
- Nasopharynx
- Nasal cavity
- Paranasal sinuses

Together, these types of cancer kill tens of thousands of Americans each year. Tobacco use is also linked to emphysema, cardiovascular disease and many other conditions that cause severe illness and premature death.

Putting yourself at risk

Using any kind of tobacco increases your cancer risk. This is especially true of cigarettes. Lung cancer remains the leading cause of cancer deaths in both men and women. However, smoking remains the most preventable cause of death in our society.

Every time you smoke a cigarette, you inhale dozens of carcinogens (substances that can cause cells to become cancerous). Tar in smoke also forms a sticky brown layer on the lining of your lungs and air passages. This layer traps carcinogens you inhale when you smoke. Men who smoke are 22 times more likely to develop lung cancer than men who don't smoke. Women who smoke are 12 times more likely to develop lung cancer than women who don't smoke.

You may think that smoking so-called "low-tar" or "low-nicotine" cigarettes reduces your risk of lung cancer. However, using these types of cigarettes may actually increase your risk. People who smoke these types of cigarettes tend to inhale the smoke more deeply and hold it in longer. They inhale more deeply to get a desired level of nicotine in the blood. This increases lung tissue exposure to the more than 4000 harmful chemicals in tobacco smoke. Recent increases in one kind of lung cancer called *adenocarcinoma* have been linked to low-tar, low-nicotine cigarettes.

Cigar smoking, like cigarettes and smokeless tobacco, increases your risk for cancer. Compared to nonsmokers, cigar smokers have higher rates of lung cancer and are 4 to 10 times more likely to die from cancers of the larynx (voice box), esophagus and mouth. In addition, secondhand cigar smoke is just as harmful to nonsmokers as other types of tobacco smoke.

Smokeless tobacco is not a safe substitute for smoking cigarettes or cigars, as these products cause various cancers and noncancerous oral conditions and can lead to nicotine addiction. Chewing tobacco increases the risk of cancers of the mouth, cheeks and gums.

Breaking nicotine's grip

Tobacco products contain nicotine, a highly addictive substance. Although you need willpower to stop, many products are available to help you break nicotine's grip:

- **Nicotine patch** — Now available over the counter, the nicotine patch is placed on your skin where it gradually releases nicotine into your body. This helps reduce nicotine cravings when you cut back or stop smoking. Eventually, you taper off using the patch.
- **Nicotine gum** — You can also buy nicotine gum over the counter. The gum works in a manner similar to that of the patch. You hold the gum in your mouth but do not chew it. The lining of your mouth absorbs the nicotine released by the gum.
- **Nicotine lozenges** — Now available over the counter, nicotine lozenges dissolve in your mouth and distribute nicotine in the same way as nicotine gum.
- **Nicotine nasal spray** — Nasal spray, available by prescription, may get nicotine into your body somewhat faster than nicotine gum, lozenges or patches because it's absorbed more quickly by the lining of your nose.
- **Nicotine inhaler** — Available by prescription, this device looks like a plastic cigarette. One end of the inhaler has a plastic tip like that used on cigars. When you put this tip in your mouth and inhale, the inhaler releases a nicotine vapor into your mouth, where the nicotine is absorbed.
- **Non-nicotine medication** — Bupropion (Zyban™, Wellbutrin™), a drug currently used as an antidepressant, is the first non-nicotine medication approved by the Food and Drug Administration as a stop-smoking aid. This drug is available only by prescription.

Your health care provider can advise you on the most effective use of these products or on how a tobacco treatment program may help. Programs are often available through hospitals and clinics.

Clearing the air politely

Even if you don't smoke, try to minimize your exposure to smoke from other people's cigarettes, cigars or pipes (sometimes called secondhand smoke). Each year, about 3,000 adult nonsmokers die of lung cancer caused by secondhand smoke.

These suggestions may help you tell others not to smoke around you:

- **Speak up** — Be assertive. Tell family and friends that smoking puts your health at risk.
- **Suggest alternatives** — Find a place nearby where your friends and family can smoke. Outside is best.
- **Display reminders** — Try hanging signs in your house or car that remind others not to smoke.
- **Get rid of ashtrays** — This is a good way to let others know that smoking isn't acceptable in your house.
- **Discuss quitting strategies** — There are many new products and strategies to help smokers stop. Try bringing them up during conversation.

Maintaining smoke-free air in your home, in the car and at work may help motivate smokers to cut down or stop.

Strategy #2: Eat a Variety of Healthy Foods

Your diet is another important cancer risk factor you can control — second only to smoking. Although making healthy selections at the grocery store and at mealtime doesn't guarantee you

won't get cancer, it can help reduce your risk. Research suggests that about 30 percent of cancers are related to nutrition and physical factors, including excess weight.

The American Cancer Society recommends the following dietary guidelines.

Choose most of the foods you eat from plant sources

Don't pass the produce section without piling fruits and vegetables into your shopping cart. Whether cauliflower, carrots or cantaloupe, eating more fruits and vegetables may play a role in preventing a variety of cancers. The same is true of foods made from whole grains, such as whole-grain breads and cereals and of legumes, such as dried beans and dried peas.

Plant foods contain more than 100 vitamins, minerals, phytochemicals and fiber, all of which may help reduce your risk of cancer (see "What are phytochemicals?"). Another benefit is that most fruits, vegetables, legumes and grains are low in fat and calories. However, even though plant foods are excellent additions to your diet, most Americans get far less of these foods than ideal. To help reduce your risk of cancer:

- Eat five or more servings of fruits and vegetables a day.
- Choose whole grains instead of processed (refined) grains and sugar.
- Limit consumption of red meats, especially high-fat and processed meats.
- Choose foods that help maintain a healthful weight.

Sizing up servings

It may be easier than you think to get all the plant foods you need. One-half cup of pasta or one piece of bread counts as a grain serving. One medium apple — not the large type typically displayed in the produce section — is a serving of fruit. Just three-quarters of a cup of 100 percent fruit juice counts as one serving of fruit. And, even if you don't like vegetables, remember just one cup of raw, leafy vegetables, or one-half cup of all other vegetables, counts as a serving. (See "Easy ways to eat five a day" for tips on working more fruits and vegetables into your diet.)

Eat lighter and leaner

Choose fewer high-fat foods, particularly those from animal sources. High-fat diets may increase the risk of obesity, which is a risk factor for several types of cancer. Eating just a little high-fat food can rapidly run up your calorie tally and make it difficult to maintain a healthy weight. This is because fat contains more calories per gram than any other type of nutrient. Fat has nine calories per gram, while protein and carbohydrates have just four calories per gram. However, overeating carbohydrates and protein can also lead to weight gain. There is some evidence that saturated fats, which are found in meat and high-fat dairy products, may have a greater effect on increasing cancer risk. In addition, if you eat a diet high in meat and fat, you may tend to eat fewer fruits and vegetables.

Use the following formula to help you determine your caloric needs for a healthy diet*:

- Multiply your present weight (in pounds) by 13 to determine the number of calories needed to maintain your weight.

- Multiply your present weight (in pounds) by 10 to determine the number of calories needed to lose 2 to 4 pounds per month.

Food labels typically list the number of fat grams and calories in a serving. If your BMI (body mass index) is over 30, ask your physician or a dietitian for an appropriate calorie level. (See BMI table.)

* These numbers are averages. Your personal caloric needs may be slightly different, depending on your activity level and age.

Easy ways to eat five a day

Eating five or more servings of fruits and vegetables a day may help reduce your risk of some kinds of cancer. If five servings sound like a lot, try these ideas:

- **Enhance old standbys** — Add fruit to your breakfast cereal and raw, grated vegetables or fruit to muffins and cookies. Put extra vegetables on your sandwich.
- **Don't let lettuce limit salads** — Choose a wider variety of greens, including arugula, chicory, collards, dandelion greens, kale, mustard greens, spinach and watercress. Deeply colored greens tend to have more nutrients.
- **Try new and unusual vegetables** — For example, broccoflower is a cross between broccoli and cauliflower and looks like a light green head of cauliflower, but has a milder, sweeter taste.
- **Be creative** — Pasta and stir-fry dishes are ideal ways to serve lots of different vegetables and small portions of meat.
- **Serve soup** — Use vegetables and legumes as a base for soups or as added ingredients.
- **Don't ignore packaged fruits and vegetables** — Keep frozen and canned fruits and vegetables on hand for a quick side dish or snack.
- **Quench your thirst with fruit or vegetable juice** — Just three-quarters of a cup of 100 percent fruit or vegetable juice counts as one of the five suggested servings of fruits and vegetables.
- **Moisturize lean ground meats** — Add raw, grated carrot, potato or apple to lean ground beef or turkey to make meat loaf or meatballs.
- **Snack sensibly** — Eat fruit or vegetables as a snack, using nonfat yogurt or nonfat salad dressing as dip.

Questions and answers about cancer and diet

Q. Can taking vitamins and other supplements help prevent cancer?

A. Health experts agree that it's better to get nutrients from food rather than relying on vitamin, mineral or fiber supplements. Foods contain combinations of many important nutrients that aren't found in supplements. In addition, excessive intake of certain dietary supplements carries the risk of serious side effects. If you think you need more than a multivitamin supplement, check with your physician or a registered dietitian.

Q. What are phytochemicals?

A. “Phyto” is the Greek word for plant. Phytochemicals are naturally occurring substances found in fruits, vegetables, whole grain products and legumes. Examples include lignans in whole grains, flavonoids in berries and lycopene in tomatoes. Some studies suggest that phytochemicals may help protect against cancer and other diseases.

Q. Can eating more soy foods reduce the risk of cancer?

A. There is not a “yes” or “no” answer. Some studies suggest that substances in soy may prevent certain types of cancer in animals. In addition, in cultures where soy is a food staple, such as Asia, certain kinds of cancer occur far less often. These differences may, however, be due to factors other than soy consumption. Although soy hasn’t been proven to help prevent cancer, it’s an excellent source of protein and a good alternative to meat in your diet. Some studies have found a correlation between high doses of soy and the growth of breast cancer. Thus, women with breast cancer or those at high risk for breast cancer should avoid soy supplements and eat soy foods in moderation.

Q. Do pesticides on fruits and vegetables cause cancer?

A. Pesticides can be toxic in high doses. However, there is no evidence that the low levels of pesticides found in fruits and vegetables increase cancer risk. The overall health benefits of eating a diet high in fruits and vegetables outweigh any risk. To reduce exposure to pesticides, thoroughly wash all fruits and vegetables with water and a scrub brush.

Strategy #3: Stay Active and Maintain a Healthy Weight

Maintaining a healthy weight and exercising regularly play important roles in preventing cancer. Studies suggest that obesity may be a risk factor for cancers of the colon, rectum, esophagus, endometrium, pancreas, liver, kidney, gallbladder and breast. Physical activity plays a key role in helping you control your weight and may help reduce cancer risk in other ways as well.

Other health benefits also come from being physically fit and maintaining a healthy weight. Physical fitness can help prevent adult-onset diabetes, osteoporosis, stress, depression, and cardiovascular disease, including high blood pressure and stroke. It can also reduce the lifestyle-limiting effects of fibromyalgia and arthritis. When you maintain a healthy weight, you are likely to feel stronger and healthier. You may also be able to get around more easily.

One way to evaluate your weight is to use a Body Mass Index (BMI). BMI is a measurement based on a formula that takes into account your weight and your height in determining whether you have a healthy or unhealthy percentage of body fat.

To determine your BMI, locate your height on the BMI table below and follow that row across until you reach the column with the weight nearest yours. Look at the top of that column for the corresponding BMI rating. A BMI of 19 to 24 is considered healthy. A BMI of 25 to 29 indicates overweight, and a BMI of 30 or more indicates obesity.

Body Mass Index Table																																																						
	Normal					Overweight					Obese					Extreme Obesity																																						
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54																		
Height (inches)	Body Weight (pounds)																																																					
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258																		
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267																		
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276																		
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285																		
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295																		
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304																		
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314																		
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324																		
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334																		
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344																		
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354																		
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365																		
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376																		
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386																		
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397																		
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408																		
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420																		
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431																		
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443																		

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

Exercise doesn't have to hurt

Despite the benefits of exercise, many people still avoid it. In fact, about 70 percent of adults older than 65 — the age group at highest risk for cancer — are inactive.

One reason may be the belief that exercise must be extremely strenuous, even painful, to produce benefits. However, experts now know that frequency and duration of activity are more important than intensity. If you are inactive, you can benefit from making simple changes in your life, such as taking a daily walk. Walking is a gentle form of exercise and an excellent way to improve your health.

Exercise is for everyone

You can begin an exercise program at any age. If you have any cardiac risk factors, see your health care provider before you start an exercise program. Cardiac risk factors include tobacco use, diabetes, high blood pressure, elevated levels of cholesterol or other fats in your blood, or a family history of heart attacks before age 55 (for males) and before age 65 (for females).

For adults, experts recommend at least moderate activity for 30 minutes or more on five or more days of the week; 45 minutes or more of moderate to vigorous activity on five or more days per week may further enhance reductions in the risk of breast and colon cancers. While that may sound like a lot of activity, your exercise session can include such low-key activities as walking, raking the yard, cleaning the house or even ballroom dancing. If you are just starting an exercise program, you may want to begin slowly with exercise you can continue for 5 to 10 minutes without getting tired. Then gradually increase the length of time and intensity as your fitness improves.

There's an exercise program that's safe for just about everyone. Your health care provider can help design one for you.

Strategy #4: Drink Alcohol in Moderation, if at All

If you drink, do so in moderation. Your risk for many different cancers increases with the amount of alcohol you consume and the length of time you've been drinking regularly. Alcohol use can increase the risk for cancer of the breast, liver, mouth, throat, esophagus, and larynx (voice box). Even moderate drinking may increase your risk.

This is true particularly if you also smoke. Using alcohol and tobacco together significantly increases your risk for cancer of the mouth, esophagus and larynx. Excessive alcohol use can also keep you from maintaining a healthy diet.

A moderate amount of alcohol may be less than you think. Recommendations define moderate drinking as two drinks a day for men and one drink a day for women. (The recommended limit is lower for women because they metabolize alcohol more slowly than men.) Pregnant women should not drink alcohol at all. Twelve ounces of regular beer, 4 to 5 ounces of wine or 1 to 1.5 ounces of 80-proof distilled spirits counts as one drink or one alcohol serving. Each of these contains about 14 grams of alcohol.

Alcohol and a healthy diet

Alcohol use can also keep you from maintaining a healthy diet and weight. Its use can change your metabolism and cause you to gain weight. This chart shows the calorie count of different types of alcohol.

Drink	Serving* (ounces)	Calories	Alcohol (grams)
Beer	12	150	13
Beer (light)	12	100	11
Beer (low alcohol)	12	60	1.5
Manhattan	2	128	17
Martini	2.5	156	22
Wine	5	105	15
Wine cooler	12	215	13

* Average serving size. Actual drink size may vary greatly.

Strategy #5: Protect Yourself From the Sun

Skin cancer is one of the most common kinds of cancer — and one of the most preventable. Although repeated exposure to X-rays or contact with certain chemicals can play a role in this disease, sun exposure is by far the most common cause of skin cancer. In fact, 90 percent of skin cancer occurs on parts of the body that usually aren't covered with clothing when you go outside — your face, hands, forearms and ears.

Most, but not all, forms of basal cell or squamous cell cancers are highly curable if detected early enough, but your best bet is to prevent them in the first place. (The most serious form of cancer, melanoma, is rarely curable in advanced stages.) The following sun-sensible habits may help protect you from the sun.

- **Avoid peak radiation hours** — The sun's ultraviolet (UV) radiation is at its peak between 10 a.m. and 4 p.m. Try to minimize or avoid being outside during this time.
- **Stay in the shade** — When you must go outside, minimize your sun exposure by staying in the shade.
- **Cover exposed areas** — Wear light-colored, loose-fitting clothing that protects you from the sun's rays. Use tightly woven fabrics that cover your arms and legs, and wear a broad-brimmed hat that covers your head and ears.
- **Choose the right sun protection** — Make sure your sunscreen has a sun protection factor (SPF) of at least 15. Check the label to make sure the sunscreen blocks out both UVA and UVB radiation, two types of ultraviolet light that can damage your skin. Since the ingredients in some sunscreens may lose their effectiveness over time, check for an expiration date. If you'll be swimming, make sure your sunscreen is waterproof and reapply it regularly. If you're allergic to PABA (paraminobenzoic acid), an ingredient in many sunscreens, find an alternative product.
- **Don't skimp on sunscreen** — Apply generous amounts of sunscreen at least 30 minutes before going outside and reapply every two hours, especially if you're sweating or in the water. Don't forget your feet, hands, neck, nose, lips and ears.
- **Avoid reflective surfaces** — Snow and water can reflect up to 85 percent of the sun's damaging rays.
- **Don't use indoor tanning beds or sunlamps** — These can damage your skin as much as the sun. There is no such thing as a healthy tan.

Strategy #6: Learn the Risks for and Signs of Cancer

Knowing your risk for cancer and being aware of changes in your body may help you prevent cancer or help your health care provider detect it at an early stage. Early detection increases your chances of a cure.

Analyzing your family history

Heredity may play a role in your risk for some types of cancer.

To help assess the role heredity may play in your risk for cancer, research the health histories of family members. Start by talking to immediate relatives (parents, siblings and children) to find out if any of them have had cancer and at what age it occurred. It would also be helpful to find out the health histories of your grandparents, aunts, uncles and close cousins.

Once you have the information, make a family tree. Put yourself in the middle and branch out. Next to each name, write down the medical conditions that affected him or her and, if applicable, the age at death. Be as specific as you can about what type of cancer each relative had.

Look for patterns of cancer and other diseases. In general, the more frequently and earlier that cancer occurs in your relatives, the more likely you are to be at increased risk. However, the occurrence of cancer in family members doesn't necessarily mean you'll get it.

If you see a pattern of cancers occurring at early ages, you may wish to schedule a visit with your health care provider. He or she will be able to review the information and determine whether it affects your risk for certain conditions. He or she can help you decide your next step, which may include seeing a medical geneticist for risk assessment. In some families, genetic testing can help determine if there is an inherited risk for some kinds of cancer.

Alert yourself to cancer's warning signs

You also need to be aware of changes in your body that could signal cancer. While cancer's signs and symptoms are not always obvious, the following warning signs can help you recognize some early indications of cancer. Any one of them should prompt you to see your health care provider.

- **Change in bowel or bladder habits** — Look for changes in frequency and color of bowel movements and urination.
- **A sore that doesn't heal** — In addition to a sore that doesn't heal in about a week, look for swelling, redness or ulceration on any part of your body.
- **Unusual bleeding or discharge** — This includes bleeding from any part of your body or blood in your urine or stool. Blood in your stool can look black, red, tar-like or purple. Discharge means pus or watery drainage from any area of your body, including your vagina or penis. Also look for unusual discharge or blood in your sputum.
- **Thickening or a lump in your breast, testicles or elsewhere** — This includes any persistent swelling or enlargement that isn't clearly the result of a blow or accident.
- **Indigestion or difficulty in swallowing** — Cancer can cause discomfort in your abdomen after eating meals or difficulty in swallowing even liquids.
- **Obvious change on your skin, or in a wart or mole** — Examine your skin regularly for changes in the size, shape or color of any growth or lump on your skin. Also look for any thickening or other changes in your skin.
- **Nagging cough or hoarseness** — A cough that worsens, becomes more frequent, or is accompanied by yellow, green or red material in your sputum could be a sign of lung cancer. Hoarseness may also be of concern because several kinds of cancer, including lung cancer, can affect your vocal cords.
- **Unexplained weight loss** — Any time you experience unexplained weight loss, report it to your physician. It can be a sign of cancer.

Strategy #7: Take Advantage of Screenings and Self-Exams

Regular screening and self-examination for certain cancers increase your chances of discovering cancer early — when treatment is more likely to be successful.

Regular visits to your health care provider should include examination of your skin, mouth, colon and rectum. If you're a man, examination should also include your prostate and testes. If you're a

woman, add your cervix and breasts. A variety of screening tests can help detect cancer long before you might on your own. Tests your health care provider may recommend include:

- **Clinical breast exam** — Your health care provider examines your breasts for lumps that could be breast cancer. Medical training and experience may help your health care provider detect lumps that you don't feel when you examine your breasts.
- **Digital rectal exam** — Your health care provider uses a finger (digit) to feel for changes that could indicate cancer of the prostate (in men) of the uterus and ovaries (in women) or the rectum (in both men and women).
- **Mammogram** — Taking an X-ray of your breasts can help reveal lumps that could be breast cancer.
- **Pap smear and pelvic exam** — During a Pap smear, the health care provider removes a small number of cells from a woman's cervix. The cells are then checked in a laboratory for changes that may indicate cervical cancer. During a pelvic exam, the health care provider feels a woman's uterus, ovaries, bladder and rectum for any changes in size or shape.
- **Prostate-specific antigen (PSA) test** — This blood test measures the level of a specific kind of protein that may increase if a man has prostate cancer.
- **Skin exam** — Having your health care provider check your skin for changes in moles, warts or sores that don't heal can help detect skin cancer.
- **Sigmoidoscopy/colonoscopy** — During these tests a health care provider uses a lighted viewing instrument to check for cancer in your colon and rectum.

Note: Unfortunately, at present, there are no effective screening tests for lung cancer, the leading cause of cancer death. Research is being done in this area.

Between visits to your health care provider, be aware of the signs of cancer and examine yourself for changes that may signal cancer of the breast and skin (see "Skin self-exam"). Ask your health care provider how and when to do these self-exams. If you already do them, your health care provider can help you determine if you are doing them correctly.

Be aware of changes in your body — this may help you detect cancer early — increasing your chances of successful treatment. If you're suspicious of changes, see your health care provider.

Skin self-exam

- Examine your body front and back in the mirror, then right and left sides arms raised.
- Bend elbows and look carefully at forearms, under arms and palms.
- Look at the backs of the legs and feet — spaces between toes, and soles.
- Examine backs of neck and scalp with a hand mirror. Part hair for a closer look.
- Finally, check back and buttocks with hand mirror.

Keep track of the tests you need

Medical opinions vary on who needs cancer screening tests, when to begin them, and how frequently to do them. Your health care provider can help you decide which of the following tests you need. Keep the table handy to make sure you stay on track.

A cancer-screening checklist for men

Test	Age at which to begin, if needed	How often do you need the test?
Digital rectal exam		
Prostate-specific antigen (PSA)		
Sigmoidoscopy/ Colonoscopy		
Skin exam		
Skin self-exam		
Testicular exam		
Testicular self-exam		

A cancer-screening checklist for women

Test	Age at which to begin, if needed	How often do you need the test?
Clinical breast exam		
Digital rectal exam		
Mammogram		
Pap smear and pelvic exam		
Sigmoidoscopy/colonoscopy		
Skin exam		
Skin self-exam		

Conclusion

Don't use tobacco. Stay active. Watch what you eat and drink. Maintain a healthy weight. Know when to see your health care provider. These strategies probably don't come as a surprise to you. Few of us have left a health care provider's office without hearing some or all of them. You may even be tempted to dismiss these strategies as the same old tired advice. But before you do, consider the numbers.

Each year, more than 1 million Americans are diagnosed with cancer, and hundreds of thousands die from it. Cancers caused by tobacco use and heavy use of alcohol could be prevented completely. Scientific evidence suggests that many cancer deaths will be related to nutrition, physical inactivity, and overweight or obesity.

In recent years, the value of prevention strategies has become more obvious. In addition to helping reduce your risk of cancer, they can also help you avoid heart attacks, strokes, diabetes and many other serious diseases.

Unfortunately, nothing can guarantee you won't get cancer. But, by making healthy choices now, you can reduce your risk and improve your daily quality of life.

Where to Get More Information

American Cancer Society

250 Williams Street NW Atlanta, GA 30329 800-ACS-2345 or 800-227-2345 <http://www.cancer.org>

National Cancer Institute

6116 Executive Boulevard Suite 300 Bethesda, MD 20892 1-800-4-CANCER (1-800-422-6237)
<http://www.cancer.gov>

Healthfinder

<http://www.healthfinder.gov>

Word List

While learning more about cancer, you may encounter some of the following terms.

Benign tumor — Noncancerous growth of tissue.

Biopsy — Removal of a sample of tissue for study under a microscope in order to aid in diagnosis.

Cancer — General term for various illnesses characterized by abnormal growth and multiplication of cells.

Carcinogens — Substances that can cause cells to become cancerous.

Colonoscopy — Screening test that uses a lighted viewing tube to examine the colon.

Cruciferous vegetables — Vegetables in the cabbage and mustard family, including broccoli, Brussels sprouts, cabbage, cauliflower, collard greens, rutabagas and turnips.

Endoscopy — Screening test that uses a lighted viewing tube to see inside hollow organs or body cavities (for example, the stomach or the esophagus).

Hormone — Substance carried through the bloodstream to various organs of the body, where it serves to regulate various body functions.

Malignant tumor — Cancerous growth of tissue that can grow uncontrollably and spread.

Mammogram — Screening test that uses X-rays of the breast to check for lumps or growths.

Metastasis — Spreading of cancer from one part of the body to another.

Oncologist — Physician specialized in the diagnosis and treatment of cancer.

Pesticides — Substances used to kill insects and rodents.

PSA (prostate-specific antigen) — Protein produced by the prostate gland. Levels of this protein may increase if you have prostate cancer.

Sigmoidoscopy — Screening test that uses a lighted viewing tube to examine the lower colon and rectum.

Tumor — Abnormal growth of tissue.

This material is for your education and information only. This content does not replace medical advice, diagnosis or treatment. New medical research may change this information. If you have questions about a medical condition, always talk with your health care provider.

