

- **Not having children or having children later in life** – If you never have given birth or have delivered your first child after age 30, you are at increased risk.
- **Alcohol consumption** – Drinking wine, beer and hard liquor have been shown to elevate the amount of estrogen in a woman's blood. Anything that increases your long-term exposure to estrogen increases your risk of breast cancer.
- **Being overweight** – Depending on several other factors, having excess weight can increase your risk of breast cancer.

Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

- Ages 18-34: Monthly self-exam; physician exam at general physical; mammogram usually not required*
- Ages 35-49: Monthly self-exam; physician exam at general physical; mammogram yearly after age 40, as reviewed with physician*
- Ages 50+: Monthly self-exam; physician exam at general physical; mammogram yearly*
- * Women with a family history of breast cancer may need to start mammography earlier. It is important to discuss your risk for breast cancer with your health care provider so that together you can make a plan.



Breast MRI is being evaluated to determine its proper use for screening. The best evidence to date is in women at high risk based on personal and family cancer history. Breast radiologists may sometimes recommend MRI as a supplement to mammography for screening. Research in breast imaging is active at Dana-Farber/Brigham and Women's Cancer Center.

Our Resources Include:

- **Mammography screening locations:**
 - 75 Francis Street, Boston, MA 02115 – 1-877-DFCI-BWH
 - 1153 Centre Street, Boston, MA 02130 – 1-877-DFCI-BWH
 - 850 Boylston Street, Chestnut Hill, MA 02467 – 1-877-DFCI-BWH
 - Boston's Mammography Van, in partnership with the City of Boston, health centers and community groups, provides mammography screening and breast health education to all women, regardless of ability to pay, with a priority on serving uninsured and underserved women in their neighborhoods. For more information, call (617) 632-1974.
- **The Breast and Ovarian Cancer Risk and Prevention Clinics** provide risk assessment, genetic testing and care for patients at high risk for breast and ovarian cancers. Clinic staff obtain detailed family history and provide comprehensive management and follow-up for patients and other family members at risk, including access to the latest clinical studies in genetics, surveillance, and chemoprevention.
- **The Gillette Center For Women's Cancers** brings together a group of the world's leading experts in breast cancers to provide women with the latest, most promising treatments, including therapies that are available only through clinical research trials.

Cervical Cancer

Your Risk:

The number of American women who die annually from cervical cancer has decreased steadily over the past 40 years – due in large part to the Pap screening test.

You are at higher risk for cervical cancer if you:

- had exposure to DES (diethylstilbestrol, a synthetic hormone) that was given to your mother while she was pregnant with you;
- have had an abnormal Pap test;

- are being treated with immunosuppressive medications;
- have had a history of high-risk HPV strain;
- are a current smoker.

Dana-Farber/Brigham and Women's Cancer Screening Recommendations:

- Adolescents-age 30: Pap tests should be obtained within three years of the onset of sexual activity, or by age 21, and then every 1-2 years until age 30
- Age 30+: Healthy women who have had three consecutive normal Pap tests may have Pap tests at 2-3 year intervals. Women who are immunocompromised or who have other medical issues may need more frequent screening, at the discretion of her physician.

In addition, the new HPV vaccine is available for women ages 9-26. Ideally patients should receive the vaccine before the onset of sexual activity. Since the vaccine does not prevent all cases of cervical cancer or precancers, patients who receive the vaccine still need routine screening.

Our Resources Include:

- **The Pap Smear Evaluation Clinic** provides comprehensive evaluation for patients that have more complicated Pap test results. The clinic offers evaluation, follow-up care and access to the latest clinical trials.
- **The Gillette Center For Women's Cancers** provides comprehensive, multidisciplinary evaluation and treatment of cervical, ovarian, and uterine cancers and precancers. The center's physicians also conduct an active program of clinical research that may benefit current patients as well as future generations of women.

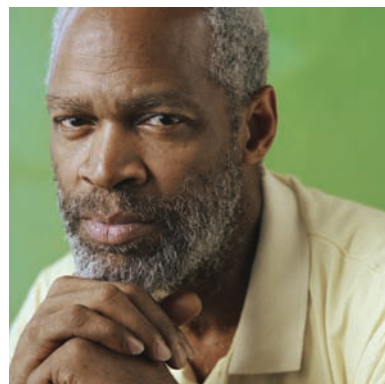
For Men

Prostate Cancer

Your Risk:

Affecting one out of every six men, prostate cancer can begin as a localized tumor in the prostate gland but can spread. It is the second most common type of cancer found in American men and is estimated that 27,000 will die of the disease in 2007. Factors that place a person at higher risk for prostate cancer, are:

- **Age** – The disease is most often found in men over the age of 50 and, as they age, their risk increases.
- **Race** – The disease is about twice as common in African-American men than in Caucasian men.
- **Diet** – Men who eat a high-fat diet are at higher risk.
- **Exercise** – A man's risk of prostate cancer is increased if he does not exercise regularly and if he does not maintain a healthy weight.
- **Family history** – Studies have shown that a man's risk is doubled if his father or brother has the disease.



Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

- Ages 18-34: Usually not required.
- Ages 35-49: Usually not required; rectal prostate exam at 40 for high-risk individuals (African-Americans or family history of prostate cancer).
- Ages 50+: Rectal prostate exam yearly; discuss PSA with your physician

Our Resources Include:

- **The Lank Center For Genitourinary Oncology** is a multidisciplinary and multi-specialty care and treatment center, as well as a cutting-edge research facility. Within the Lank Center, physician/scientists carry knowledge that they gain from their laboratory discoveries and research to their patients through advanced treatment.

DANA-FARBER/BRIGHAM AND WOMEN'S CANCER CENTER HAS 12 CENTERS SPECIALIZING IN:

- Breast and Gynecologic Cancer
- Cutaneous Cancer
- Endocrine Cancer
- Gastrointestinal Cancer
- Genitourinary Cancer
- Head and Neck Cancer
- Hematologic Oncology
- Hematology – Benign
- Neuro-Oncology
- Sarcoma
- Thoracic Cancer
- Cancer Risk and Prevention

For More Information

Call us at 1-877-DFCI-BWH for more information or to schedule a cancer screening. We can assist you with referrals to any of our treatment centers as well. To view additional information online, visit www.dfbwcc.org.

DANA-FARBER/BRIGHAM AND WOMEN'S



75 Francis Street
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www.dfbwcc.org
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Your Guide to Cancer Prevention and Screenings[©]

DANA-FARBER/BRIGHAM AND WOMEN'S CANCER CENTER

Formed to provide patients with the most comprehensive and innovative care, Dana-Farber/Brigham and Women's Cancer Center is an integrated center treating adults with cancer.



This integration of one of the world's leading cancer institutes with one of the world's leading hospitals has created one center and one clinical team – with a unique combination of resources to fight and defeat cancer.

Dana-Farber/Brigham and Women's Cancer Center is committed to prevention and early detection of cancer. For those adult patients who do develop cancer, we have 12 specialized centers devoted to helping fight each type of cancer. Each center is staffed with medical, radiation, and surgical oncologists, radiologists, pathologists, nurses, social workers and other specialists. The medical staff of each treatment center works as a team to provide expert evaluation and the most advanced treatment possible.

One of the 12 centers, the Cancer Risk and Prevention Center, is devoted to researching factors that can reduce risk or those that may even prevent cancer.

Our world-renowned physicians and researchers are committed to conquering cancer by developing new ways to prevent and screen for cancer, as well as developing new therapies.

THE IMPACT OF CANCER

Each year, nearly 1.4 million new cases of cancer are diagnosed in the United States – a figure that does not include the 900,000 cases of skin cancer diagnosed annually. Cancer is the second leading cause of death (after heart disease) in the United States, accounting for 560,000 deaths every year.

There are more than 100 different varieties of cancer, which can be divided into the following six major categories:

- *Carcinomas* originate in any of the organs within the body – such as the liver, kidney and pancreas.
- *Sarcomas* begin in parts of the body that connect the body, such as the ligaments.
- *Lymphomas* are cancers of the lymph system, the circulatory system that bathes and cleanses the body's cells.
- *Leukemias* involve blood-forming tissues and blood cells.
- *Brain tumors*, as their name indicates, are cancers that begin in the brain.
- *Skin cancers*, including dangerous melanomas, originate in the skin.

GENERAL CANCER PREVENTION

IS THE FIRST STEP

It is important that you know your risk for cancer and those factors that you can control – such as lifestyle, exercise and nutrition choices – and those you cannot, including family history, gender and age. While risk factors can vary greatly, there are changes you can make to decrease your overall risk for cancer.

- Quit smoking if you are a smoker;
- Protect yourself from the sun;
- Eat a healthy diet that includes plenty of fruits and vegetables;
- Limit red meat consumption;
- Do not consume too much alcohol;
- Keep your body at a healthy weight;
- Incorporate regular exercise and physical activity into your daily routine;
- Be aware of your health and any changes in your body; make sure you check yourself for unusual lumps or moles and, if you find something, be sure to have it checked out by your health care provider.



www.dfbwcc.org

CANCER SCREENING GUIDE

Fortunately, for certain forms of the disease, there are screenings that can detect cancer in its earliest stages. The health care providers of Dana-Farber/Brigham and Women's Cancer Center have developed the following cancer screening recommendations for use in concert with your health care provider.

For Men and Women

Colorectal Cancer

Your Risk:

Colorectal cancer – one of the most treatable forms of cancer when detected early – is a disease in which cancer cells grow in the colon, rectum or both. Factors that place a person at higher risk for colorectal cancer, are:

- **Age** – According to the American Cancer Society, more than 90 percent of colorectal cancer cases are diagnosed in people over the age of 50.
- **Polyps** – Benign growths of the colon and rectum increase your risk, particularly if it is an inherited condition.
- **Family history** – If a first-degree relative in your family – a parent, sibling, or child – has had the disease or has had polyps, you are at higher risk.
- **Diet** – A diet that is high in red meat fats will place you at higher risk.



Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

- Ages 18-34: Usually not required
- Ages 35-49: Review risks and needs yearly with your health care provider
- Ages 50+: Yearly stool occult blood test; screening with flexible sigmoidoscopy or colonoscopy determined by your health care provider based on your risk profile

Our Resources Include:

- *The Gastrointestinal Cancer Risk and Prevention Clinic* provides risk assessment, genetic testing and care for patients at high risk for gastrointestinal cancers. Clinic staff obtain detailed family history and provide comprehensive management and follow-up for patients and other family members at risk, including access to the latest clinical studies in genetics, surveillance, and chemoprevention.
- *The Gastrointestinal Cancer Center* focuses on the care of patients with abnormalities (polyps, tumors, and cancers) of the digestive system – specifically the esophagus, stomach, liver, biliary tract, pancreas, colon, rectum, and anus.

Lung Cancer

Your Risk:

The number one risk for lung cancer is smoking. If you smoke, you should quit. Aside from smoking – which places you at the highest risk – you are at increased risk of lung cancer if you have had:

- prior surgery for another lung cancer;
- occupational exposure to asbestos;
- prolonged exposure to high levels of radon.

Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

At the present time, there is not a standardized recommendation for lung cancer screening. Based on your risks, you should discuss the need for specific tests, such as a chest x-ray or chest CT, with your health care provider. There is on-going clinical research at Dana-Farber/Brigham and Women's Cancer Center to determine if certain tests would be reliable for screening.

Our Resources Include:

- *The Carole M. And Philip L. Lowe Thoracic Oncology Program* has established a multidisciplinary collaborative approach to evaluate patients with confirmed thoracic malignancies, including lung and esophageal cancers. Recognizing that a team approach is the best way to manage multimodality therapy, the program provides highly coordinated care that offers the key advantages of seamless evaluation, rapid response, comprehensive expert services and optimal therapy.

Oral Cancer

Your Risk:

The oral cavity is made up of various parts of the mouth including the lips, lip and cheek linings, teeth, tongue, gums, and jaw. Oral cancer can affect any or all of these areas. The number of new cases of oral cancer, as well as the number of deaths from oral cancer, has been decreasing. Factors that place a person at higher risk for oral cancer, are:

- **Tobacco and alcohol use** – Tobacco use (cigarettes, pipes, cigars, and smokeless tobacco) is responsible for most cases of oral cancer. Alcohol, particularly beer and hard liquor, are associated with an increased risk of developing oral cancer. Avoiding or stopping the use of tobacco and/or alcohol will decrease the risk of oral cancer.
- **Diet** – A diet that is low in fruits, vegetables, and fiber may increase the risk of oral cancer.
- **Age** – The risk of developing oral cancer increases after 45 years of age.

Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

- Ages 18-34: Yearly as part of dental exam
- Ages 35-49: Yearly as part of dental exam
- Ages 50+: Yearly as part of dental exam

Our Resources Include:

- *The Head and Neck Oncology Program* provides evaluation, testing and treatment for patients with oral premalignant lesions, those at high risk for head and neck cancers, and patients who have developed one of these cancers. Clinic staff carry out detailed history and examination, as well as provide comprehensive management and follow-up for patients at risk, including access to the latest clinical studies in treatment, prevention, and surveillance.

Skin Cancer

Your Risk:

Skin cancer statistics show that one in five Americans develops skin cancer and every hour one American dies of the disease. Skin cancer is caused most often by overexposure to the sun and its ultraviolet (UV) rays. It is important to practice proper sun protection to reduce your risk of skin cancer. Your risk of developing skin cancer is increased if you:

- have light skin color (fair-skinned people with blond or red hair and blue or light-colored eyes have a greater risk of developing skin cancer than dark-skinned people);
- freckle easily;
- have had frequent, severe sunburns;
- live in an environment with high degrees of sun exposure;
- have an inability to tan;
- have a family history of skin cancer.

Dana-Farber/Brigham and Women's Cancer Center Screening Recommendations:

- Ages 18-34: Monthly self-exam of moles and birthmarks and by physician at general physical
- Ages 35-49: Monthly self-exam of moles and birthmarks and by physician at general physical
- Ages 50+: Monthly self-exam of moles and birthmarks and by physician at general physical

Our Resources Include:

- *The Pigmented Lesion Clinic* is a comprehensive clinic for managing patients with atypical moles and dark spots that may become precancerous or cancerous. The clinic is staffed by dermatologists with access to oncologists, surgeons and other specialists. The goal of the clinic is to provide information, convey prognosis, future treatment and follow-up, as well as patient education in the areas of sun protection and skin self-exam.
- *The Center for Cutaneous Oncology* offers patients access to a team of specialists who focus on all aspects of the disease, including research and clinical trials, treatment and prevention. These physicians are experts in the care of patients who have melanoma, cutaneous lymphoma, merkel cell carcinoma, or patients who may be at risk for developing these diseases.

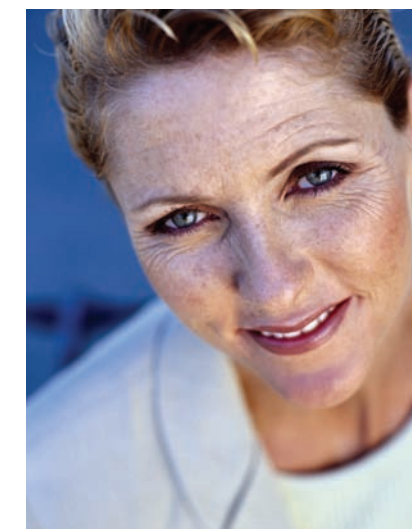
For Women

Breast Cancer

Your Risk:

Breast cancer is the second leading cause of cancer death in American women. It is projected that in 2007 alone, about 178,000 women in the United States will be diagnosed with invasive breast cancer. The promising news is that most women diagnosed with the disease at an early stage do survive and continue to live normal lives. Factors that place a person at higher risk for breast cancer, are:

- **Sex** – Being a woman is the leading risk factor for breast cancer, primarily because of the complex hormonal changes that occur during a woman's lifetime.
- **Age** – As you age, your chance of getting breast cancer increases.
- **Family history** – If you have a mother, sister or daughter who has had breast cancer, you are at double the risk for the disease. A family history of breast or ovarian cancer on the father's side can also increase breast cancer risk.
- **Reproductive health history** – Longer-term exposure to estrogen affects your risk of breast cancer. You are at higher risk if you had your first period before age 12 or reached menopause after age 55.
- **Ethnic or racial background** – Caucasian women have the highest risk, followed by African-American and Hawaiian women. Hispanic-American and Asian-American women appear to have the lowest risks.
- **Hereditary breast cancer** – Multiple relatives with breast or ovarian cancers, especially diagnosed at young ages, may suggest inherited breast cancer risk. However, only five to 10 percent of breast cancer is associated with a mutation in a strong gene.
- **Previous findings** – If you have previously had breast cancer or a breast biopsy that showed irregular changes, you may be at increased risk for breast cancer.
- **Hormone replacement therapy** – The use of hormone replacement therapy in the form of estrogen and progesterone, for longer than five years, places you at a slightly higher risk for breast cancer.



1-877-DFCI-BWH