3301 New Mexico Avenue, NW
Suite 348
Washington, DC 20016

FOXHALL
INTERNISTS, PC

FOXHALL INTERNISTS

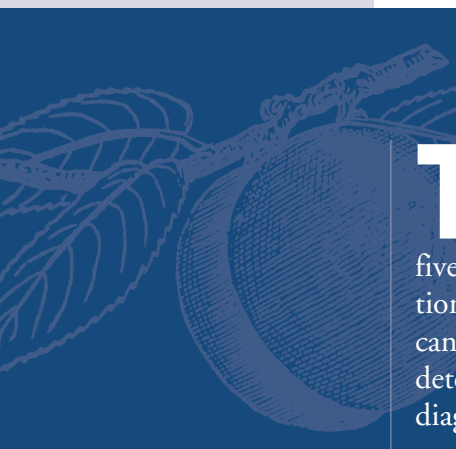
3301 New Mexico Ave, NW
Suite 348
Washington, DC 20016
Phone 202.362.4467
Fax 202.362.2303
www.foxhallinternists.com

Mary Restifo, MD
Alexander C. Chester, MD
Lawrence E. Klein, MD
Saulius Naujokaitis, MD
Andrew N. Umhau, MD
Richard D. Schubert, MD
Beth L.P. Ungar, MD
Theodore C.M. Li, MD
Linda L. Yau, MD
Kristin Thomas, MD
Patti Allen Colevas, MD
David M. Hansen, MD
Thomas L. Sacks, MD

Cancer *UpDate*

Basic Information About Risk Factors, Screening and Prevention:

- Lung Cancer
- Prostate Cancer
- Melanoma
- Breast Cancer
- Colorectal Cancer



This issue of our newsletter will provide some basic information about a very large subject—cancer. We'll look at five common forms of cancer under consideration by the internist, some of the things you can do to prevent these cancers, and how to detect cancer at a stage when it is most easily diagnosed and cured.

The good news is that many cancers are preventable. The American Cancer Society estimates that in 2005 more than 175,000 cancer deaths are expected to be caused by tobacco use. In addition, scientific evidence suggests that about one-third of the 570,280 cancer deaths expected in 2005 will be related to inadequate nutrition, physical inactivity and obesity, and could also be prevented. The more than one million skin cancers expected in 2005 could have been prevented by protection from the sun.

Our goal is that some of this information may help you make health and lifestyle changes that will keep you healthy and cancer free. Please discuss any questions you have with your physician.

Lung Cancer

Lung cancer is the most common cause of cancer death in the U.S. and smoking is responsible for 87% of lung cancers. Other risks for lung cancer include certain chemical exposures. A number of studies have found that there is also an increased risk of lung cancer if an individual lives with a smoker.

Estimates of the relative risk of lung cancer in long-term smokers compared with lifetime nonsmokers vary from 10- to 30-fold. The cumulative lung cancer risk among heavy smokers may be as high as 30%, compared with a lifetime risk of 1% or less in nonsmokers.

Stopping smoking lowers the risk of lung cancer among former smokers compared with current smokers. Studies show that former smokers who have been abstinent for more than 15 years have an 80- to 90% reduction in risk. Cigar and pipe smoking also increase the risk of lung cancer but to a lesser extent than cigarettes.

Second-hand smoke provides a smaller exposure to environmental tobacco smoke than the exposure that occurs with active smoking. However, exposure to environmental tobacco smoke usually begins much earlier in life than it does with active smoking.

Hereditary factors are less well understood for lung cancer than for many other human cancers. However, studies suggest that first-degree relatives (parents, siblings, children) have an approximately two-fold increased risk of developing lung cancer.

Diet also plays a role. Many studies suggest that increased consumption of fruit, green and yellow vegetables, and possibly some nutrients, is linked with a substantially lower risk of lung cancer among cigarette smokers and nonsmokers. There is no clear evidence that taking antioxidant vitamin supplements (like vitamins E and B-carotene) lowers the risk for lung cancer. In fact, antioxidants may raise the risk of cancer in smokers.

Prostate Cancer

The sixth most common cancer worldwide, prostate cancer rarely occurs before age 45, but the incidence rises rapidly thereafter. It is more common in black than in white or Hispanic men. For American men, the lifetime risk for developing prostate cancer is 17%, but the risk of dying is only 3%. Prostate cancer often grows so slowly that most men die of other causes before the disease becomes clinically advanced.

Risk Factors:

- Family history: Risk is elevated approximately two-fold in men with an affected brother or father compared to those without an affected relative
- Diet high in animal fat
- Diet low in vegetables

To Lower Risk:

- Eat fish, particularly species containing omega-3 fatty acids, like salmon, herring, mackerel
- Daily selenium supplements (200 µg) may be helpful

Screening Guidelines:

- Prostate-specific antigen test and a rectal examination every year, beginning at age 50
- Men at high risk (African-Americans and men with strong family history—brother or father diagnosed with prostate cancer at an early age—should begin testing at age 45

A rectal examination is a simple diagnostic test. The physician palpates the prostate gland to check for nodules or irregularities. The test is limited in that only 85% of cancers arise in locations where they can be detected with a finger examination.

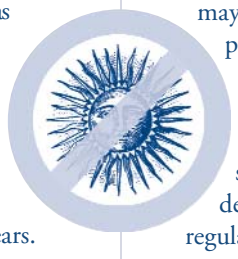
Prostate specific antigen (PSA), a simple blood test, may be elevated in men with prostate cancer. The normal rise of PSA with aging accelerates in men with prostate cancer. Men with a PSA rate of change greater than 0.75 ng/mL per year are at increased risk for prostate cancer and need evaluation. Studies estimate that PSA elevation can precede obvious signs of prostate cancer by 5 to 10 years. PSA can also be elevated in benign conditions, especially benign enlargement of the prostate, a common condition; infections; and other urinary tract problems. Ejaculation within days of obtaining the sample may produce a slight elevation.

An abnormal prostate rectal exam, abnormal PSA, or increased rate of change require a full evaluation. An abnormal rectal exam and a normal PSA, as well as a normal rectal exam and an abnormal PSA, may mean cancer is present.

UpDate

Melanoma

The sixth most common cancer in the United States, the incidence of melanoma is increasing faster than any other cancer, possibly because of recreational sun exposure and global changes such as ozone depletion. Approximately 7,900 deaths per year in the U.S. are attributable to melanoma; however the overall survival of patients with melanoma has increased from 50% in 1950, to 80% around 1975, to 90% at present. The median age at diagnosis is 53 years.



Risk Factors

- Sun-sensitive skin type
- Immunosuppression
- Hereditary defects
- Family history of melanoma
- Certain types of moles; increased number of moles
- Excess sun exposure or history of severe sunburn

Up to 50% of melanomas arise from normal skin. Tumors may occur anywhere on the skin surface, but are frequently located on the back and other areas that may be hard to find. A checklist helps in recognizing moles that may present a problem.

However, those at high risk should see a dermatologist regularly, and any concern about a mole should prompt a visit to the doctor.

2005 Estimated US Cancer Cases

Men: 710,040		Women: 662,870	
Prostate	33%	Breast	32%
Lung & bronchus	13%	Lung & bronchus	12%
Colon & rectum	10%	Colon & rectum	11%
Urinary bladder	7%	Uterine corpus	6%
Melanoma of skin	4%	Melanoma of skin	4%
Non-Hodgkin lymphoma	4%	Non-Hodgkin lymphoma	4%
Kidney	3%	Ovary	3%
Oral cavity	3%	Thyroid	3%
Leukemia	3%	Pancreas	2%
Pancreas	2%	Urinary bladder	2%
All other sites	17%	All other sites	21%

2005 Estimated US Cancer Deaths

Men: 295,280		Women: 275,000	
Lung & bronchus	32%	Lung & bronchus	27%
Prostate	10%	Breast	15%
Colon & rectum	10%	Colon & rectum	10%
Pancreas	5%	Ovary	6%
Leukemia	4%	Pancreas	6%
Esophagus	4%	Leukemia	4%
Non-Hodgkin lymphoma	3%	Non-Hodgkin lymphoma	3%
Liver & intrahepatic bile duct	3%	Uterine corpus	3%
Urinary bladder	3%	Multiple myeloma	2%
Kidney	3%	Urinary bladder	2%
All other sites	24%	All other sites	22%

source: American Cancer Society, 2005

Detection Checklist

- Change in size, color or shape of an existing mole
- Inflammation
- Bleeding or crusting
- Pain or itching
- Moles ¼" or greater

Prevention

Sun avoidance is key. A history (sometimes a distant past history) of severe sunburn is an important risk factor. Sun avoidance includes the use of sunscreens with a sun protection factor of at least 15 (SPF 15), clothing, broad-brimmed hats, and avoidance of midday sun.

Early Detection

Early detection of melanoma can be lifesaving. Monthly skin self-examination using good lighting and mirrors is a valuable method of early detection for those at increased risk.

Breast Cancer

Breast cancer is the most common cancer in women in the U.S., the second most common cause of cancer death in women (after lung cancer), and the main cause of death in women ages 45 to 55.

Mortality rates for white women under age 55 have decreased, while rates have increased for women 55 and older. The decrease in this younger group is probably related to the increase in the use of mammography by younger women and the aggressive use of therapies. Mortality rates have increased for African-American women of all ages.

Risk Factors

- The incidence rises with age
- Women of higher socioeconomic status are at greater risk by as much as two-fold. The influence of socioeconomic status is thought to be a result of differing lifetime production of hormones from the body, number of pregnancies, and age at first pregnancy
- Family history is important, but only 10% of women with breast cancer have a positive family history. About 5-10% of breast cancers are associated with a gene mutation, such as BRCA-1 or BRCA-2. The risk is increased two-fold when a mother or sister is affected (a first-degree relative). With two affected first-degree relatives, the risk increases three-fold. The risk is decreased from these ratios if the affected relative is diagnosed after age 60.
- Malignant breast conditions somewhat increase the risk of new, unrelated cancers, particularly colon and uterine cancers
- Prolonged exposure to, and higher concentrations of estrogen, increase risk. Therefore, younger age at onset of the menstrual cycle and late menopause are associated with higher risk
- Women who have never given birth have a 1½-time increased risk compared with women who have
- Most benign breast conditions are not linked with increased risk
- There is a modest relationship between estrogen/progesterone use and breast cancer. Studies do not demonstrate a convincing link between birth control pills and breast cancer
- Obesity and a high-fat diet are associated with higher risk
- Moderate alcohol intake is associated with increased risk. The risk is reduced by adding dietary folic acid

Protective Factors

- The younger a woman at first full-term pregnancy, the lower her risk. Women who give birth for the first time at age 35 have a 1.6-time higher risk than those first giving birth at age 26
- Women who breastfeed for at least 12 months have a lowered risk
- Exercise may provide modest protection

Screening Guidelines

- For most women, we recommend yearly mammograms starting at age 40 with a baseline mammogram between the ages of 35 and 40
- A yearly clinical breast exam as part of a periodic health exam
- Women should know how their breasts normally feel and report any changes promptly to their doctor
- Women at increased risk should consider increased frequency of screening and perhaps additional tests such as a breast sonogram or breast MRI

Age & Breast Cancer Incidence

Age	Risk
Birth - 39	1 in 235
40-59	1 in 25
60-79	1 in 15
Lifetime	1 in 8

Remember: The mortality risk is much lower than the breast cancer risk noted above.

American Cancer Society, Cancer Facts & Figures, 2000

Colorectal Cancer

Colorectal cancer (CRC) is a common and preventable cancer. In the United States, CRC ranks second only to lung cancer as a cause of cancer death.

CRC is rare before age 40, but the incidence rises significantly between the ages of 40 and 50, and continues to rise thereafter. The lifetime incidence of CRC in individuals at average risk is about 5%, with 90% of cases occurring after age 50.

Death rates from CRC have declined progressively since the mid-1980s. This improvement in outcome can be attributed, at least in part, to detection of disease at an earlier stage and more effective treatment.

Colonoscopy Saves Lives

Most CRC arises from a preexisting colon polyp. The progression from a polyp to a cancer is usually slow, perhaps 8 years, which permits effective screening. Colonoscopy, at intervals that vary depending on risk, is extremely effective in removing small benign and pre-cancerous polyps, preventing serious cancers from developing.

For most people, colonoscopy screening should begin at age 50 and be repeated at intervals of 3 to 10 years. There are, however, many reasons to begin this procedure earlier (at age 40 or before) and to repeat it at shorter intervals. These reasons include a family history of colon cancer or certain colon polyps, a personal history of colon polyps or colon cancer, a history of colitis, and many other risk factors.

With a family history, colonoscopy could be considered as early as age 40, with an even earlier starting age in certain familial cancer syndromes. It is important to consult with your doctor to review the recommended screening plan. Yearly fecal occult blood tests offer additional protection and can be started earlier than colonoscopy. 25% of those diagnosed with CRC have a family history of the disease. With a single affected first-degree relative (parent, sibling, child), the risk increases 1½-fold. Risk is further increased if two first-degree relatives have colon cancer or if one relative under age 55 has the disease.

Risk Factors

- A personal history of colon cancer, colitis, or colon polyps
- A family history of colon cancer or colon polyps
- Lack of physical activity
- Consumption of red meat
- Obesity
- Diabetes
- Cigarette smoking
- Alcohol use
- Certain hereditary conditions

Protective Factors

- Consumption of vegetables, fruits and fiber
- Diet low in red meat, animal fat and cholesterol
- Multivitamins with folic acid
- Aspirin
- Calcium supplements
- Selenium may be helpful

Screening Guidelines

Screening guidelines should be discussed with your doctor. Usually, a colonoscopy at the age of 50 is standard.

Virtual Colonoscopy

An examination of the colon using CT scanning, this procedure provides a three-dimensional image that can be manipulated to reveal all planes and folds in the colon. It is effective in detecting polyps that can cause problems. However, unlike colonoscopy, removal or biopsy of any polyps that might be present must be done as an additional procedure.