



BREAST AND PROSTATE CANCER PREVENTION

BREAST CANCER

A. What is breast cancer?

Breast cells grow out of control

Cells clump together to form a mass

Most breast masses are not cancerous (benign)

- These do not spread outside the breast tissue
- Are not life-threatening

Sometimes these masses (or grouping of cells) are malignant (cancerous.)

B. What are the risks factors?

Sex – breast cancer is 100 times more common in females

Age (75% occurs in women over 50)

Race (Caucasian women are more likely than Hispanic or Black women to develop breast cancer.)

Alcohol consumption. Alcohol increases estrogen levels. 1/2 – 1 drinks a day increases risk by 20%; 3 drinks day increases risk by 100%.

Diet

- Women who eat red meat have twice the risk as women who eat the same quantity of fish or poultry
- Diets in high unsaturated fat (*Fat cells produce more estrogen. Also high fat is associated with early menstruation resulting in longer exposure to estrogen putting one at greater risk.*)

Lifetime exposure to estrogen (the greater the exposure, the greater the risk)

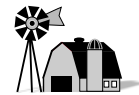
- Early menarche (*menstruation before age 12*)
- Late menopause (*after the age of 55*)
- No pregnancies or having your first child after the age of 30
- Use of birth control pills or estrogen therapy
- Breastfeeding (*Women who breastfed for at least 3 months reduced risk by 25%*)

Personal History

- If you've had breast cancer in one breast you are 3-4 times more likely to develop cancer in the other breast
- Family History – If your mother, sister(s) or daughter(s) have had breast cancer, especially premenopausal, you're at increased risk.
- Genetics – Defects in genes account for 5 - 10 % of breast cancers patients.
<Note: There are some on-going studies that demonstrate a link between familial colon cancer and breast cancer.>

Other possible risks being studied, but not yet proven

- Obesity (*Especially weight gained post-menopause and carry weight carried in your abdomen as opposed to legs and buttocks.*)



- Pesticide and other chemical exposure like those found in cigarette smoke and charred red meat. Organochlorides from agricultural chemicals may initiate breast cancer by mutating genes.

C. How do you lower your risk for breast cancer?

Eat foods high in fiber (between 20 and 30 grams)

- Fruits
- Vegetables
- Whole grains

Eat five or more servings of fruits and vegetables daily

- High in vitamins
- Minerals
- Antioxidants

Include soy in your diet

- May inhibit cancer cell growth
- E.g. soy milk and tofu

Limit fat intake (less than 30% daily)

- Helps maintain a healthy weight

Limit alcohol consumption (no more than a drink/day)

Stay physically fit

- Studies show that women who exercised at least four hours a week during reproductive years saw a 58% reduction of breast cancer risk
- Try to include weight bearing exercises like walking, jogging or dancing which help build stronger bones

Avoid pesticides

- Wash all produce.
- Peel waxed produce.
- Consider organically grown foods.

D. What are some symptoms of breast cancer?

Lump or mass in the breast or under arm area

Change in size, shape or color of the breast

Breast thickening, swelling, or tenderness

Change in the way the skin feels including dimples, puckers or scales

Pain or discharge from the nipple

E. Breast cancer screening tests

Monthly breast self-exam (BSE)

- Examine breasts at the same time every month.
- Best time is 7 days after your last menstrual cycle.
- Become familiar with breast tissue and appearance.

<Note to presenter: You may wish to discuss the American Cancer Society "Breast Self-Examination" brochure included with this presentation packet. If you choose to do so, additional information is provided at the end of this document.>

Annual clinical breast exam

- Recommended to have once every 3 years until age 40.
- Conducted by a doctor or other health professional.



Partners in Agricultural Health PowerPoint Summaries

Annual mammogram for women over 40

- An x-ray that shows an image of your breast tissue
 - Can detect lumps or abnormalities that you can't see or feel with BSE
- Discuss your risk and family history with your health care provider. Depending on risk factors, you may need to schedule a mammogram before age 40**
- If you have any of the warning signs, contact your physician immediately**

PROSTATE CANCER

A. Anatomy of the Prostate

Prostate is a small, walnut-sized gland in the male reproductive system
Located in front of the rectum
Part of the male reproductive system
Produces fluid that mixes with sperm

B. What is prostate cancer?

Cancer occurs when cells in the prostate grow out of control
Cells clump together and form a mass
Masses/Tumors

- Non-cancerous (benign) also known as Benign Prostate Hyperplasia (BPH.)
 - ✓ Abnormal growth of benign cells
 - ✓ Can press against the urethra and bladder interfering with the flow of urine
 - ✓ More than 50% of men in the US between ages of 60 and 70 have these symptoms
 - ✓ 90% between the ages of 70 and 90
 - ✓ BPH may have to be treated depending on severity
- Cancerous (malignant) – 180,000 diagnosed cases/year

C. What are the risk factors associated with prostate cancer?

Age

- Usually occurs in men over 50.
- Risk goes up with age (75% of the cases are in men over 65.)
- Average age at diagnosis is 70.

Family history

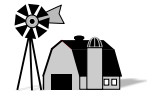
- Risk doubles if your father or brother has had it.
- Males whose mother or sister have had breast cancer appear to carry a higher risk of prostate cancer.

Race

- More common in African American men than in Caucasian men.
- Less common in Asian and American Indian men than in Caucasian men.

Farming

- Studies indicate that farmers who sprayed 250 acres or more double the risk of developing prostate cancer.
- Risk correlates with the number of acres sprayed. The more acres sprayed, the more likely one is to develop prostate cancer.



Diet

- Some studies indicate a diet higher in fat may increase risk

D. How do you lower your risk for prostate cancer?

Reduce animal fat in diet

- Especially red meat. Eating red meat 5 times a week increased risk by 2.5 times

Increase soy in diet (*Soy is a source of plant estrogens that have been shown to inhibit hormones that promote prostate cancer.*)

- Soy milk
- Tofu

Stay physically fit!

- Exercising 45 minutes/day significantly decreased risk.
- Any exercise help prevent heart attacks, high blood pressure and elevated cholesterol, aid with fighting obesity and potential risk factors for some cancers.

Tomatoes appear to reduce risk (*they contain a plant chemical called lycopene, an anti-oxidant.*)

Diets high in fiber seem to be protective in nature (*Fiber binds to sex steroids.*)

E. What are the symptoms of prostate cancer? (Note: often prostate cancer has no symptoms!)

Frequent urination (*especially at night*)

Difficulty starting to urinate or holding back urine

Inability to urinate

Weak or interrupted blow of urine

Pain or burning while urinating

Blood in urine or semen

Painful ejaculation

Frequent pain or stiffness in the lower back, hips or upper thighs

Loss of appetite and weight

F. Prostate cancer screening tests

Digital Rectal Exam (DRE) – Doctor's examination with a lubricated finger.

- Should be part of annual physical
- Recommended at 50 years old
 - ✓ Sooner if there is a family history

Prostate Specific Antigen (PSA)

- Blood test (*small amount is drawn from your arm*)
- Checks for elevation of antigen (*a substance which is produced in your prostate and circulates through your blood stream*)
- If elevated follow-up is necessary. This may be an indication of prostate cancer, but does not necessarily mean you have cancer. Only one third of young men with an elevated PSA level *actually* have cancer.
- Although PSA has limitations (false positives), it's the best, current screening
- Recommended at 50 years old
 - ✓ Sooner if there is a family history

THE EARLIER THE DETECTION OF CANCER, THE GREATEST CHANCE FOR SUCCESSFUL TREATMENT!!



G. Below is some additional information to help with the brochure discussion.

American Cancer Society recommends the following procedure for Self Breast Examination:

1. Lie down with a pillow under your right shoulder and place your right arm behind your head.
2. Use the finger pads of the three middle fingers on your left hand to feel for lumps in the right breast.
3. Press firmly enough to know how your breast feels. A firm ridge in the lower curve of each breast is normal. If you're not sure how hard to press, talk with your doctor or nurse.
4. Move around the breast in a circular, up and down line, or wedge pattern. Be sure to do it the same way every time, check the entire breast area, and remember how your breast feels from month to month.
5. Repeat the exam on your left breast, using the finger pads of the right hand. (*Move the pillow to under your left shoulder.*)
6. Repeat the examination of both breasts while standing, with your one arm behind your head. The upright position makes it easier to check the upper and outer part of the breasts (toward your armpit). This is where about half of breast cancers are found. You may want to do the standing part of the BSE while you are in the shower. Some breast changes can be felt more easily when your skin is wet and soapy.

If you find any changes, see your doctor right away!

Selected Resources:

American Cancer Society website (www.cancer.org). "What is Breast Cancer?"

American Cancer Society website (www.cancer.org). "What is Prostate Cancer?"

American Cancer Society. "How to do a Breast Self-Examination" Handout.

Harvard Center for Cancer Prevention website (<http://www.yourcancerrisk.harvard.edu>) "Breast Cancer Fact Sheet."

Harvard Center for Cancer Prevention website (<http://www.yourcancerrisk.harvard.edu>) "Prostate Cancer Fact Sheet."

Harvesting Health Breast Cancer Fact Sheet. National Farm Medicine Center.

Kelly, Patricia, PhD. *Assess Your True Risk of Breast Cancer*. 2000.

Mayo Clinic Health Information website (<http://aolsvc.illnesses.aol.com>) "What is Breast Cancer?"

Mayo Clinic Health Information website (<http://aolsvc.illnesses.aol.com>) "What is Prostate Cancer?"

Prostate Cancer Research Institute website (<http://www.prostate-cancer.org/aboutus/press/stats.html>) "Statistics/Facts Sheet."