

Cancer Screening

Guideline: Each person should have periodic health examinations that include evaluation for the risk for cancer and examinations to detect signs of premalignant and malignant conditions.

The following Guideline is intended to help physicians, nurses, and others involved in clinical decision-making by describing the recommended course of action for Cancer Screening for individuals served by SCDDSN. Decisions about screening for each individual should be based on clinical history, assessment, and other factors unique to the individual. When, because of behavioral or physical conditions, it would be necessary to use conscious sedation or general anesthesia to complete screening procedures, screenings should be completed at the discretion of the primary care provider and interdisciplinary team including the individual and his/her surrogate consent giver. A deferral should only be done after a risk/benefit analysis has been completed and documented. The risk/benefit analysis documentation should include the specific risks and benefits reviewed. Risks that would prohibit the procedure should include medical and psychological conditions and should not be based solely on the presence of an intellectual or related disability. As much as possible, the recommendations reflect the strength of evidence and magnitude of net benefit (benefits minus harms) as reported by the U.S. Preventive Services Task Force and nationally recognized health organizations.

DEFINITIONS:

Cancer screening: The process of assessing people for early signs of a certain type cancer, even though they have no symptoms.

Individual's record: A permanent legal document that provides comprehensive information about the individual's health care status.

Medical progress notes: The section of the individual's record where primary care providers document their findings and provide rationale for treatment plans.

Primary care providers: Physicians, nurse practitioners, and physician assistants who provide primary care services and are authorized to prescribe medications and treatments for people on their assigned caseloads.

Risk factor: Anything that increases a person's chance of getting a disease such as cancer. Even if a person has one or more risk factors for a specific type of cancer, it is impossible to know for sure how much that risk factor contributed to causing the cancer.

RATIONALE:

1. The purpose of cancer screening is to identify persons at high risk for specific conditions and to provide early detection and intervention for asymptomatic persons.
2. Treatment for cancer is most successful when detected and treated early. Screening may reduce cancer mortality and morbidity since treatment for earlier-stage cancers is often less aggressive than that for more advanced cancers.
3. The following guidelines have been adapted from the current recommendations of the U.S. Preventative Services Task Force, the American Cancer Society, and other health organizations.

EXPECTED OUTCOMES (General):

1. Staff should be trained to observe for signs or symptoms of cancer. Some of these include:¹
 - Change in bowel or bladder habits
 - A sore that does not heal
 - Unusual bleeding or discharge
 - Thickening or lump in the breast or elsewhere
 - Indigestion or difficulty swallowing
 - Obvious change in wart or mole
 - Nagging cough or hoarseness
2. Training should be incorporated into new employee orientation programs for all employees. Documentation of training should be maintained according to facility policy.
3. Changes in a person's appearance, activity-level, or behavior which may suggest any early signs or symptoms of cancer should be reported promptly to health personnel. The nurse should document reported information and observations in the nursing notes.
4. Prompt and thorough follow-up should be completed and documented when signs and/or symptoms of cancer are detected.
 - a. The medical plan of care should be documented in the medical progress notes.
 - b. Nursing strategies, interventions, and follow-up should be documented in the nursing notes.

BREAST CANCER (Released January 2016)^{2,3}

Health examinations for early detection of breast cancer should be conducted at least annually as part of the physical examination by the primary care provider.

1. A breast exam should be performed by a trained registered nurse or primary care provider in conjunction with the quarterly physical assessment. For women who do not receive quarterly assessments, the exam should be completed on a quarterly basis. Results of the exam should be documented in the individual's record.
2. Mammograms should be obtained every 1- 2 years for women 45 years of age and older. The decision to start biennial screening mammography before age 50 should be decided on an individual basis.² When mammograms cannot be obtained, the reason should be indicated in the medical progress notes. Women should be referred to a breast clinic or gynecologist for consultation as needed.
3. If a lump or thickening of the breast is identified or if bleeding or discharge from the nipple is detected, it should be documented in the nursing notes and the woman should be referred to the primary care provider immediately.

CERVICAL CANCER (Released March 2012)⁴

Health examinations for early detection of cervical cancer should be conducted on a regular basis for women age 21 to 65.

1. Examination Schedule:
 - a. A Pap test should be obtained every 3 years for women age 21 to 65. For women age 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years. (See the USPSTF [Clinical Considerations](#) for discussion of cytology method, HPV testing, and screening interval.)⁴

Cervical Cancer cont'd

- b. It is not recommended to screen for cervical cancer with HPV testing, alone or in combination with cytology, in women younger than age 30.
 - c. It is not recommended to screen for cervical cancer in women younger than 21 years of age.
 - d. It is not recommended to screen women for cervical cancer older than age 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer. (See the USPSTF [Clinical Considerations](#) for discussion of adequacy of prior screening and risk factors.)⁴
 - e. It is not recommended to screen women for cervical cancer who have had a hysterectomy with removal of the cervix and who do not have a history of a high-grade precancerous lesion (cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer.
2. Women may need considerable preparation for the examination. If the procedure is difficult to complete due to behavioral or physical reasons, conscious sedation or general anesthesia may be considered. Unless the woman is considered high risk for cervical cancer, a Pap test with the use of conscious sedation or general anesthesia should be withheld until other invasive testing or procedures are being done.

COLORECTAL CANCER (Released June 2016)⁵

Health examinations for early detection of colorectal cancer should be conducted on a regular basis for men and women aged 50 to 75 years, unless there are special considerations. The decision to screen for colorectal cancer in adults ages 76 to 85 years should be an individual one, taking into account the patient's overall health and prior screening history. It is not recommended after age 85.

1. There are four screening strategies that are recommended for consideration. Please refer to the 2016 US Preventive Services Task Force final recommendations for additional information when selecting a screening strategy:⁶
 - a. Stool based tests:
 1. gFOBT – every year, or
 2. FIT – every year, or
 3. FIT-DNA
 - b. Digital Visualization Tests
 1. Colonoscopy – every 10 years
 2. CT colonoscopy – every 5 years
 3. Flexible sigmoidoscopy – every 5 years
 4. Flexible sigmoidoscopy every 10 years plus FIT every year
2. The choice of screening strategy should be based on patient preferences, medical contraindications, patient adherence, and resources for testing and follow-up. Results of the examination should be documented as part of the annual physical examination.
3. Neither a digital rectal examination (DRE) nor the testing of a single stool specimen obtained during DRE is recommended as an adequate screening strategy for colorectal cancer.

Colorectal Cancer cont'd

4. Individuals should begin colorectal cancer screening earlier and be screened more frequently if they have any of the following risk factors:
 - a. a personal history of colorectal cancer or adenomatous polyps
 - b. a strong family history of colorectal cancer or adenomatous polyps
 - c. a personal history of chronic inflammatory bowel disease
 - d. a family history of a hereditary colorectal cancer syndrome
5. Any rectal bleeding or long-term change in bowel habits should be documented in the nursing notes and reported to the primary care provider immediately.

LUNG CANCER (Released December 2013)⁷**Health examination for early detection of lung cancer should be conducted according to the following guidelines:**

1. Adults between 55 and 80 years old who are at high risk for lung cancer because they are current heavy smokers or have quit within the past 15 years should be screened every year with a low dose computed tomography.
2. Screening should be discontinued once a person has not smoked for 15 years or developed a health problem that substantially limits life expectancy or the ability or willingness to have a curative lung surgery.

ORAL CAVITY and OROPHARYNGEAL CANCER

While there are no standard or routine screening tests, screening for oral cavity or oropharyngeal cancer, may be done as a part of routine dental check-ups (See Dental Services guideline) or routine examinations by a primary care provider.

PROSTATE CANCER (Released May 2012)⁸

It is no longer recommended to use prostate-specific antigen (PSA)-based screening on a regular basis for prostate cancer. Men should have an assessment of their prostate gland as part of a general cancer-related checkup during their periodic health examination.

SKIN CANCER⁹

Adults age 20 years and older should have their skin examined as part of a general cancer-related checkup during their periodic health examination. Excessive sun exposure should be avoided and use of protective clothing and sunscreen are encouraged.

1. Clinical considerations for selected populations at high risk:
 - a. The following people are at substantially increased risk for melanoma:
 - fair-skinned men and women over the age of 65,
 - patients with atypical moles, and
 - those with more than 50 moles
 - b. Clinicians should remain alert for skin lesions with malignant features noted in the context of physical examinations performed for other purposes.

Skin Cancer cont'd

- c. The following conditions of the skin should be documented and reported to the primary care provider for follow-up examination and the results of the follow-up examination should be documented in the medical progress notes:
- A sore that does not heal
 - A new growth
 - Spread of pigment from the border of a spot to surrounding skin
 - Redness or a new swelling beyond the border
 - Change in sensation – itchiness, tenderness, or pain
 - Change in the surface of a mole – scaliness, oozing, bleeding, or the appearance of a bump or nodule.
- d. Asymmetry, border irregularity, color variability, diameter greater than 6 mm, or rapidly changing lesions (ABCDE Rule) are features associated with an increased risk of malignancy. Suspicious lesions should be biopsied.

ABCDE Rule for Early Detection of Melanoma

Warning Signal	Definition
A = Asymmetry	One half of the mole does not match the other half
B = Border irregularity	Edges of the mole are ragged, notched, or blurred
C = Color	The color is not uniform, with different shades of tan, brown, or black.
D = Diameter	A diameter greater than ½ inch in size should be of concern
E = Evolving	The mole is changing over time.

TESTICULAR CANCER (Although regular screening for testicular cancer in the general population is no longer recommended by the USPSTF, to promote early identification of testicular cancer in individuals receiving health services from SCDDSN, screening is recommended.)

Health examinations for early detection of testicular cancer should be conducted according to the following guidelines:

1. All males should have a testicular examination as part of their annual physical examination. Results should be documented as part of the annual physical.
2. Testicular examination should be done by the registered nurse or the primary care provider in conjunction with a quarterly physical assessment up to the age of 40. For those men who do not receive a quarterly assessment, the exam should be done on a quarterly basis or at the same time as other medical examinations with the primary care provider. Results of these exams should be documented in the individual's record.
3. Any lump on the testicle or change in its size should be documented and reported to the primary care provider for follow-up examination. Results of the follow-up examination and treatment rendered should be documented in the medical progress notes.

Risk Factors for Cancer

The following information is adapted from information disseminated by the American Cancer Society and available on their Web Site (<http://www.cancer.org>). Dates for the most recent revisions from the American Cancer Society are noted in parentheses.

Bladder Cancer (revised May 2016)¹⁰

The following risk factors make a person more likely to develop bladder cancer:

- Smoking – Smokers are at least 3 times as likely to get bladder cancer as non-smokers. Smoking is the greatest risk factor for bladder cancer.
- Caucasians are about twice as likely to develop bladder cancer as African Americans.
- Age - About 9 out of 10 people with bladder cancer are older than 55.
- A history of chronic bladder inflammation (urinary tract infections, kidney and bladder stones, and other causes of chronic bladder irritation)
- A personal history of bladder cancer
- Birth defects involving the bladder
- A personal history of exposure to radiation treatment
- Ingesting arsenic in drinking water
- Genetic and family history of bladder cancer
- Certain medications or herbal supplements (Actos for diabetes may be linked according to the FDA. Supplements containing aristocholic acid have been linked.)
- Low fluid consumption

Breast Cancer (revised May 2016)¹¹

Risk factors that cannot be changed include:

- Gender – Breast cancer is 100 times more common in women than men. Men can develop breast cancer however.
- Aging – The risk increases with age.
- Genetics – Between 5 % and 10% of all cases are hereditary as a result of gene changes.
- Family history - The risk is higher in women who have a close relative with breast cancer.
- Personal history of breast cancer – A woman with cancer in one breast has an increased risk of developing a new cancer in the other breast or in another part of the same breast. (This is different from a recurrence of the first cancer.) The risk is even higher if breast cancer was diagnosed at a younger age.
- Race – Overall, white women are slightly more likely than African Americans to develop breast cancer. In women under age 45, breast cancer is more common in African American women.
- Menstrual periods – Women who start menstruating before age 12 or who go through menopause after 55 have a slightly higher risk of breast cancer.
- Previous abnormal breast biopsies. (Note: biopsy specimens diagnosed as “fibrocystic changes without proliferative breast disease” and “fibro adenoma” do not increase breast cancer risk.)
- Previous radiation therapy to the chest.
- Dense breast tissue - women with dense breast tissue have a 1.2 - 2 times increased risk compared to women with average breast density.
- Certain benign breast conditions have increased risk.

Breast Cancer cont'd

Risk factors related to life-style include:

- Not having children or having the first child after age 30 slightly increases risk of breast cancer.
- Birth control – oral contraceptives and Depot-medroxyprogesterone acetate (DMPA; Depo-Provera®).
- Using combined hormone therapy after menopause increases the risk of getting breast cancer. It may also increase the chances of dying from breast cancer. The use of estrogen alone after menopause does not appear to increase the risk of developing breast cancer.
- Use of alcohol.
- Obesity, lack of physical activity, and a diet of high fat foods.

Cervical Cancer (revised January 2016)¹²

The following increase the risk of women having cervical cancer:

- Having had human papilloma virus (HPV)
- Smoking
- Immunosuppression - Weakened immune system from HIV or medicines
- Past or current chlamydia infection
- Poor diets (low in fruits and vegetables)
- Being overweight
- Long term use of oral contraceptives
- Intrauterine device use
- Having three or more full term pregnancies
- Family history - mother or sister
- Giving birth before age 17
- A woman's mother taking DES during pregnancy

Colorectal Cancer (revised January 2016)¹³

Risk factors that cannot be changed include:

- Age – risk increases after age 50
- Personal history of adenomatous polyps or colorectal cancer
- Personal history of inflammatory bowel disease (e.g., ulcerative colitis, Crohn's Disease)
- Family history of adenomatous polyps or colorectal cancer
- Ethnicity – Ashkenazi Jews have higher rate of colon cancer
- Type 2 diabetes
- Certain inherited syndromes (e.g., familial adenomatous polyposis and Lynch syndrome)

Risk factors related to life style and strongly linked to colorectal cancer:

- Diets high in fat and/or red meat
- Cooking meats at high heat (frying, broiling, and grilling)
- Heavy alcohol use
- Overweight
- Lack of exercise – physical inactivity
- Smoking

Endometrial Cancer (revised February 2016)¹⁴

The following increase the risk of women having endometrial cancer:

- Things that affect hormone levels, like taking estrogen alone (without progesterone) after menopause, taking tamoxifen; higher than typical number of menstrual cycles (over a lifetime), infertility or no pregnancies, obesity, certain ovarian tumors, and polycystic ovarian syndrome
- Age – risk increases as women get older
- High fat diet
- Inactivity – lack of exercise
- Diabetes
- Family history (having close relatives with endometrial or colorectal cancer)
- Having been diagnosed with breast or ovarian cancer in the past
- Having been diagnosed with endometrial hyperplasia in the past
- Treatment with radiation therapy to the pelvis to treat another cancer

Factors that lower the risk of endometrial cancer include:

- Use of birth control pills
- Use of an intrauterine device (IUD) that does not contain hormones
- Physical activity and exercise

Lung Cancer (revised February 2015)¹⁵

The following increase the risk of a person having lung cancer:

- Smoking and second hand smoke (cigarette, cigar and pipe)
- Exposure to industrial substances such as: arsenic, some organic chemicals, radon, asbestos, radioactive ores such as uranium, and diesel exhaust
- Radiation exposure from occupational, medical, and environmental sources
- Tuberculosis and other lung diseases
- Personal and family history
- Diet low in fruits
- Air pollution

Oral Cavity and Oropharyngeal Cancer (revised January 2016)²¹

People with the following characteristics are at higher risk for oral and/or oropharyngeal cancer:

- Tobacco users
- Alcohol users (combined heavy alcohol consumption of alcohol and use of tobacco significantly increases risk.)
- Human papilloma virus (HPV) infection
- Gender: Men are at two times the risk of women.
- Age: Older than 55 years of age
- Increased exposure to ultraviolet light
- Poor nutrition – diets low in fruits and vegetables
- Weakened immune systems
- Graft-versus-host disease
- Genetic syndromes (Fanconi anemia and Dyskeratosis congenita)
- Lichen planus

Prostate Cancer (revised March 2016)¹⁶

The following increase the risk of a man having prostate cancer:

- Age – rare in men under 40. Six in ten cases of prostate cancer are found in men over 65
- Race/ethnicity – African American
- Family history
- Diet high in red meats and high fat dairy products and low in fruits and vegetables.

Skin Cancer (revised 2016)^{17,18,19}

*People with the following characteristics are at higher risk for developing **melanoma** (revised March 2016):*¹⁸

- Excessive exposure to ultraviolet radiation
- Moles (atypical moles, dysplastic nevus syndrome, congenital melanocytic nevi)
- Fair skin, freckling, and light hair. Risk much greater for whites than African Americans.
- Family history of melanoma or other skin cancers
- Weakened immune systems due to medical treatments or certain diseases.
- Prior history of melanoma.
- Gender – Women at higher risk before age 45. Men at higher risk after age 45.
- Age - 50% occurs after age 50
- Xeroderma pigmentosum (rare inherited condition)

*People with the following characteristics are at higher risk for **non-melanoma skin cancer** (revised May 2016):*¹⁹

- Excessive exposure to ultraviolet light
- Fair skin
- Older age
- Gender – Men twice as likely to have basal and squamous cell cancers than women
- Exposure to large amount of arsenic
- Previous exposure to radiation treatment
- Personal history of basal and squamous cell cancers
- Personal history of weakened immune systems
- Treatment for psoriasis (PUVA)
- Xeroderma pigmentosum (XP)
- Smokers are more likely to develop squamous cell cancers especially of the lips. Smoking is not related to basal cell cancer.

Testicular Cancer (revised February 2016)²⁰

Men with the following characteristics are at higher risk for having testicular cancer:

- History of cryptorchidism (undescended testicles)
- Family history - those with fathers or brothers with testicular cancer
- Younger age - About 50% of cases are in men ages 20-34 years old but it can occur at any age
- HIV infection
- Prior history of testicular cancer
- Caucasian
- Carcinoma in situ

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