

HOW DO WE SCREEN FOR CANCER?

Highlighted below are some cancer screening tests used in the clinic for the five most common cancer types for which there are evidence-based screening guidelines. Unless indicated otherwise, many of the procedures listed here can detect cancer at any stage of development, but the aim of using them for screening purposes is to find the cancer at the earliest possible stage.

Breast Cancer

Screening mammogram:



- This test uses X-rays to generate 2-dimensional images of the breast that can be stored on film (a conventional mammogram) or electronically (a digital mammogram) for further analysis.
- Some machines can generate 3-dimensional images in a process called breast tomosynthesis.

Breast magnetic resonance imaging (MRI):

- Uses radio waves and a powerful magnet linked to a computer to create a detailed image of the breast.



Cervical Cancer

Pap test:

- Samples cervical cells, which are analyzed under a microscope to look for abnormalities.

HPV test:

- Detects the presence of certain cervical cancer-causing types of human papillomavirus (HPV).
- Does not directly detect precancerous or cancerous cervical lesions but identifies people for whom further testing is recommended.



Lung Cancer

Low-dose Spiral CT scan:



- Uses low doses of X-rays to rapidly image the lungs and detect any structural abnormalities suggestive of lung cancer. Suspicious lesions are then biopsied for diagnosis.

Colorectal Cancer

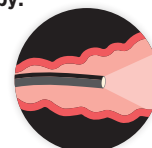
Stool tests:

- Some test for the presence of red blood cells in stool samples. Others test for both red blood cells and certain genetic mutations linked to colorectal cancer.
- Do not directly detect colorectal precancerous lesions or cancers but identify people for whom further testing is recommended.



Flexible sigmoidoscopy and colonoscopy:

- Both use a thin, flexible, lighted tube with a small video camera on the end to allow physicians to look at the lining of certain parts of the colon and rectum.



Computed tomography (CT) colonography (virtual colonoscopy), and double-contrast barium enema:

- Use X-rays to image the colon and rectum.

Blood test:

- Detects epigenetic abnormalities linked to colorectal cancer in blood.
- Does not directly detect colorectal precancerous lesions or cancers but identifies people for whom further testing is recommended.



Prostate Cancer

PSA test:

- Measures the level of a protein called prostate-specific antigen (PSA) in blood, which is often elevated in men with prostate cancer.
- Does not directly detect prostate cancer but identifies men for whom further testing is recommended.

