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Tests and Procedures [1]

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The most common diagnostic tests are described below. When choosing a diagnostic test(s), your doctor will consider the person?s age and medical condition, the type of cancer suspected, the severity of the symptoms, and previous test results. Learn more about diagnostic tests for a specific type of cancer [3]. And, not everyone will need all available tests. Learn more [4] about specific tests and procedures that are commonly used in cancer care but should be questioned in specific situations.

Barium Enema [5]

An enema is a procedure that delivers liquid into the rectum and colon through the anus. Barium, which is a special dye called a contrast medium, is the liquid used in a barium enema. When an x-ray is taken, the barium shows up bright white, clearly outlining the colon and rectum. Abnormalities, such as inflammation, polyps (precancerous growths), and cancer, are then visible.

Biopsy [7]

A biopsy is a medical procedure that, for most types of cancer, is the only way to make a definitive cancer diagnosis, as it provides the most accurate analysis of tissue. Often, doctors will recommend a biopsy after a physical examination or imaging study, such as an x-ray, has identified a possible tumor.

Bone Marrow Aspiration and Biopsy [8]

A bone marrow biopsy and aspiration is a diagnostic examination of the bone marrow that can provide information about the development and function of blood cells.

Bone Scan [9]

A bone scan is a diagnostic imaging test used to determine if your bone is damaged, either from cancer or from some other cause. The scan will detect cancer that has started in your bones, as well as cancer that has metastasized (spread) to the bone from other areas of your body. It can also track how cancer in the bone is responding to treatment.

Breast MRI for the Early Detection of Breast Cancer [11]

Breast magnetic resonance imaging (MRI) is a procedure being studied more frequently for its role in detecting breast cancer. Although the early results of breast MRI studies are encouraging, breast MRI should not be substituted for mammography for women at average risk for breast cancer. However, it may be an additional tool to screen for breast cancer in women at high risk for developing the disease.

Breast MRI [12]

A breast MRI (magnetic resonance imaging) exam is a diagnostic examination that uses magnetic fields to capture multiple images of the breast tissue, which are combined to create detailed, computer-generated pictures of your breasts. A breast MRI sometimes is used to diagnose and evaluate breast tumors. Under some circumstances, this test may better identify a small mass within a woman's breast than a mammogram or ultrasound, particularly for women with very dense (non-fatty) breast tissue.

Colonoscopy [13]

A colonoscopy is a diagnostic examination used to look inside the entire large intestine, which plays an important role in the body?s ability to process waste. The colon makes up the first five to six feet of the large intestine, and the rectum makes up the last six inches, ending at the anus.

Computed Tomography (CT) Scan [14]

A computed tomography (CT) scan, also called a CAT scan, is a diagnostic exam used to detect tumors, determine the stage of the disease and whether cancerous cells have spread, and find out about the effectiveness of cancer treatment.

Digital Rectal Exam (DRE) [15]

A digital rectal exam (DRE) is a screening test that allows a doctor to check the prostate gland in men or the lower colon/rectum in men and women for cancer or other abnormalities. In addition, in association with a vaginal examination, a DRE can check for cancer of the uterus and ovaries in women. A DRE can also be used to check the other organs and structures in the pelvis.

Donating Blood and Platelets [17]

More than 44,000 blood donations are needed every day, according to the American Red Cross. Many of these donations are given as blood transfusions to people with cancer. A blood transfusion is a procedure in which blood or a blood component is transferred from one individual (donor) to another (recipient). Cancer treatments [18], such as surgery, chemotherapy, and bone marrow transplantation, or the cancer itself may cause the need for a transfusion. A person may choose to donate whole blood or specific parts of the blood, such as platelets or red blood cells.

Donating Bone Marrow [19]

Each year, thousands of people with life-threatening diseases affecting bone marrow function, such as leukemia, lymphoma, myeloma, aplastic anemia, and genetic and immune system disorders, are in need of a bone marrow (or stem cell) transplantation. In many cases, the bone marrow transplant represents a patient's only chance at survival and may even offer a cure. Learn how to register as a bone marrow donor.

Donating Umbilical Cord Blood [20]

Donated umbilical cord blood can be used to treat people with life-threatening diseases including leukemia, other types of cancer, and immune and genetic disorders. Learn about the importance

of umbilical cord blood, public versus private use, and how to become an umbilical cord blood donor.

EKG and Echocardiogram [21]

An electrocardiogram (EKG or ECG) and an echocardiogram (also known as an echo) are tests that check your heart function and identify any issues that might be present. Some people with cancer who receive chemotherapy may need one of these tests, or amultigated acquisition (MUGA) scan[22], before cancer treatment to identify pre-existing heart conditions or during and after cancer treatment to identify chemotherapy-related heart damage.

Types of Endoscopy [23]

Endoscopy is a procedure that allows a doctor to view the inside of a person's body by inserting a tool called an endoscope. Most endoscopes are thin tubes with a powerful light source and a tiny camera at the end that sends images to a screen. The images help doctors see parts of the body that they would not otherwise be able to view.

Fecal Occult Blood Tests [25]

The fecal occult blood test (FOBT) is a diagnostic examination used to detect blood in the feces (stool). Blood in the stool may be a sign of colorectal cancer or other problems such as polyps (growths that develop on the inner wall of the colon and rectum) or ulcers.

Integrated PET-CT Scan [27]

An integrated PET-CT scan combines images from a positron emission tomography (PET) scan and a computed tomography (CT) scan that have been performed at the same time using the same machine. Because a CT scan provides detailed pictures of tissues and organs inside the body, while a PET scan reveals any abnormal activity that might be going on there, combining these scans creates a more complete image than either test can offer alone.

Magnetic Resonance Imaging (MRI) [28]

Magnetic resonance imaging (MRI) is a diagnostic examination that uses magnetic fields to create detailed, computer-generated pictures of internal organs and tissue, including the brain

and spinal column. An MRI scan is often used to diagnose and evaluate tumors in the chest and abdomen.

Mammography [29]

Mammography is a type of x-ray specifically designed to view the breast. The x-ray films produced by mammography, called mammograms, can find small tumors or irregularities in the breast.

MUGA Scan [31]

A multigated acquisition (MUGA) scan checks to see if your heart is pumping blood properly. Some people with cancer receiving chemotherapy may need to have this test during their cancer treatment.

Pap Test [32]

A Pap test, also called a Pap smear, detects cervical cancer and can also find early changes in the cells of a woman's cervix that, if left untreated, could turn into cancer. If a doctor treats these irregular cells, the patient has an almost 100% chance of being cured.

Positron Emission Tomography (PET) Scan [34]

A positron emission tomography (PET) scan is a diagnostic examination used to detect cancer, determine the stage of cancer, and evaluate the effectiveness of cancer treatments, such as chemotherapy or radiation therapy.

Sigmoidoscopy [35]

A sigmoidoscopy is a screening or diagnostic test that allows a doctor to see inside the lower 20 inches of the sigmoid colon and rectum (also called the large intestine). It is frequently used as a screening test to find polyps, which are small growths that may become cancer. Usually polyps do not cause any symptoms and can only be detected by doing a screening test like a sigmoidoscopy. Removing these polyps may prevent colorectal cancer. It can also be used as a diagnostic test for patients having rectal bleeding, a change in bowel habits, or other symptoms.

Tumor Marker Tests [36]

Tumor markers (also known as biomarkers) are substances found at higher than normal levels in the blood, urine, or body tissue of some people with cancer. Although cancer cells often produce tumor markers, other healthy cells in the body produce them as well.

Ultrasound [37]

Ultrasound, also called sonography or ultrasonography, uses high-frequency sound waves to create a picture of internal organs. A tumor generates different echoes of the sound waves than normal tissue does, so when the waves are bounced back to a computer and changed into images, the doctor can locate a tumor inside the body.

Upper Endoscopy [39]

An upper endoscopy is a procedure that allows a doctor to examine the upper part of the gastrointestinal (GI) tract, including the esophagus (the muscular tube that connects the throat to the stomach), stomach, and duodenum (the top of the small intestine). It is also called upper GI endoscopy or esophagogastroduodenoscopy (EGD).

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[4] http://www.cancer.net/node/25346
[5] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/barium-enema
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[11] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/breast-mri-early-detection-breast-cancer
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[18] http://www.cancer.net/node/25071
[19] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/donating-bone-marrow
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[27] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/integrated-pet-ct-scan
[28] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/magnetic-resonance-imaging-mri
[29] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/mammography
[30] http://www.cancer.net/es/desplazarse-por-atenci%C3%B3n-del-c%C3%A1ncer/pruebas-y-procedimientos/mamograf%C3%ADa
[31] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/muga-scan
[32] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/pap-test
[33] http://www.cancer.net/es/desplazarse-por-atenci%C3%B3n-del-c%C3%A1ncer/pruebas-y-procedimientos/prueba-de-papanicolaou
[34] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/positron-emission-tomography-pet-scan
[35] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/sigmoidoscopy
[36] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/tumor-marker-tests
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[38] http://www.cancer.net/es/desplazarse-por-atenci%C3%B3n-del-c%C3%A1ncer/pruebas-y-procedimientos/ecograf%C3%ADa
[39] http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/upper-endoscopy