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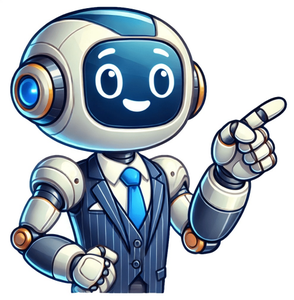

Cea 19 9 blood test

Ver esta página en español On This Page: What Is CA 19-9? Antigens are substances that cause the immune system to respond. Carbohydrate antigen (CA) 19-9 is a type of antigen released by pancreatic cancer cells. It can also be referred to as a tumor marker. The CA 19-9 Radioimmunoassay (RIA) is a blood test that measures the CA 19-9 level in the blood. There are blood tests commercially available that may be able to detect pancreatic cancer. A test measuring CA 19-9 cannot detect the presence of pancreatic cancer by itself, but it can be used on a panel with other biomarkers that can signal the presence of the disease. After diagnosis, the CA 19-9 Radioimmunoassay (RIA) blood test can also be used for some patients to watch the disease's development. Note: Not every patient with pancreatic cancer will have a high CA 19-9 level. Some conditions other than cancer can cause high CA 19-9 levels. The CA 19-9 test cannot be used to diagnose or screen for pancreatic cancer by itself. Instead, doctors often use it to judge a treatment's success. When Is the CA 19-9 Test Performed? Levels of CA 19-9 may be measured as part of a panel of biomarkers to detect the disease early from a blood test. Patients may also get the test after a confirmed pancreatic cancer diagnosis. If the CA 19-9 level was raised before treatment, patients may be tested during and after treatment to judge success. Why Is the CA 19-9 Test Given? Changes in CA 19-9 levels help doctors see if the tumor is growing, staying the same or getting smaller. This helps doctors decide if they should change treatment or run more tests or scans. How Is the CA 19-9 Test Done? A blood sample is taken from the patient and then sent to a lab for testing to find the level of CA 19-9 in the blood. This blood sample is measured using a radioimmunoassay, or RIA, test. Radioimmunoassay is a lab technique that can show specific substances in the blood. What Do the CA 19-9 Results Mean? The normal CA 19-9 range in a healthy person is 0-37 units per milliliter. CA 19-9 levels can be higher in patients with pancreatic cancer. In general: Rising CA 19-9 values mean the tumor is growing. If the values stay the same, the disease may be stable. Decreasing CA 19-9 values may mean treatment is working and the tumor or amount of cancer in the body is decreasing. A decline in CA 19-9 levels after treatment followed by a rise later may suggest that the tumor has come back or grown. How Often Is the Test Given? The doctor decides how often the CA 19-9 tests are performed. If the tumor seems to be growing during treatment, the CA 19-9 test may be repeated weekly or after each round of treatment is completed. If a patient is not receiving treatment now, the CA 19-9 test may be used occasionally to decide if that patient should restart treatment or have more testing. People who had surgery might have CA 19-9 tests as part of their follow-up care. What Other Conditions Can Cause Elevated CA 19-9 Levels? A high CA 19-9 is usually related to pancreatic cancer. But other cancers, like colorectal, lung and gallbladder cancers, can also cause raised levels. Non-cancerous conditions that can cause high CA 19-9 levels include: Gallstones Biliary infection (cholangitis) Blockage of the bile duct (jaundice) Pancreatitis (swelling of the pancreas) Cystic fibrosis Liver disease During radiation therapy, CA 19-9 levels might be raised as dying cancer cells release CA 19-9. For this reason, the test is not usually done while the patient receives radiation treatment. We're Here to Help For free, in-depth and personalized resources and information on pancreatic cancer diagnosis and treatment, contact PanCAN Patient Services. Related Topics See how pancreatic cancer is found, including tests used. Understand how tissue samples are used to diagnose pancreatic cancer. Learn about pancreatic cancer treatment options. See why pancreatic cancer is usually found late and what is being done to fix this. Information reviewed by PanCAN's Scientific and Medical Advisory Board, who are experts in the field from such institutions as University of Pennsylvania, Memorial Sloan-Kettering Cancer Center, Virginia Mason Medical Center and more. Information provided by the Pancreatic Cancer Action Network, Inc. ("PanCAN") is not a substitute for medical advice, diagnosis, treatment or other health care services. PanCAN may provide information to you about physicians, products, services, clinical trials or treatments related to pancreatic cancer, but PanCAN does not recommend nor endorse any particular health care resource. In addition, please note any personal information you provide to PanCAN's staff during telephone and/or email communications may be stored and used to help PanCAN achieve its mission of assisting patients with, and finding cures and treatments for, pancreatic cancer. Stored constituent information may be used to inform PanCAN programs and activities. Information also may be provided in aggregate or limited formats to third parties to guide future pancreatic cancer research and education efforts. PanCAN will not provide personal directly identifying information (such as your name or contact information) to such third parties without your prior written consent unless required or permitted by law to do so. For more information on how we may use your information, you can find our privacy policy on our website at . Cancer antigen 19-9 (CA 19-9; also known as carbohydrate antigen 19-9) is a tumor-associated mucin glycoprotein antigen that is related to the Lewis blood group protein. This antigen is present in epithelial tissues of the pancreas, biliary ductular cells, stomach, gallbladder, colon, endometrium, salivary glands, and prostate. [2] Normal pancreatic juice, bile (in benign conditions), and even seminal fluid contain CA 19-9. [2] Blood levels may be elevated in healthy patients as well as in patients with benign and malignant conditions. [24] CA 19-9 was originally identified by a monoclonal antibody in a colorectal cancer cell line [25, 26] but has proven more useful in the management of pancreatic cancer. This sialylated Lewis A blood group antigen is identified by a radioimmunometric assay. [17, 25] However, approximately 5% of the population are Lewis antigen A- B- and do not produce the CA 19-9 antigen. This assay cannot be used in these patients. [24, 25] CA 19-9 for pancreatic cancer, as a screening test CA 19-9 is not recommended for use as a screening test for pancreatic cancer. [19] Its sensitivity (68-93%) and specificity (76-100%) are inadequate for accurate diagnosis. [2] The test may be falsely normal or inappropriately elevated in people who do not have cancer, since increased levels can be seen in healthy individuals, in benign conditions, and in other malignant conditions. [17, 18, 19] Conversely, CA 19-9 levels may not be elevated in patients with small pancreatic tumors or with early-stage tumors. Approximately 5% of the population does not produce the CA 19-9 antigen. [24] CA 19-9 for pancreatic cancer, to determine surgical resectability and postoperative outcomes CA 19-9 should not be used alone to determine surgical resectability or outcomes after surgical resection. In the evaluation of patients for surgical intervention, preoperative CA 19-9 levels have been used to predict patient outcomes. When blood levels of CA 19-9 were greater than 1000 U/mL, 96% of tumors were found to be unresectable. [2] However, this preoperative evaluation alone has yet to be widely used to establish inoperability. [25] Furthermore, several studies have shown a correlation between a postoperative decline in CA 19-9 levels and the increased duration of patient survival. [25] Patients whose CA 19-9 normalized postoperatively may live longer, [2] whereas rising CA 19-9 levels may correlate with shorter survival times. CA 19-9 for pancreatic cancer, to detect recurrence CA 19-9 may predict recurrence of pancreatic cancer before the clinical examination or radiographic findings. However, CA 19-9 determinations alone cannot provide definitive evidence of disease recurrence and must be confirmed with imaging studies or biopsy. Serial assay measurements may be helpful in the management of patients following surgical resection with adjuvant chemotherapy and/or radiation therapy or surgical resection alone without adjuvant therapy. [25, 27] Elevation of CA 19-9 above certain levels may also correlate with disease recurrence early in the postoperative period. CA 19-9 for pancreatic cancer, to monitor treatment response Currently, insufficient data exists to recommend routine use of CA 19-9 alone to monitor treatment response. CA 19-9 can be measured at the start of treatment for locally advanced and metastatic disease and every 1-3 months during active treatment with chemotherapy, radiation therapy, and/or other targeted or biological therapies. A fall in CA 19-9 levels could help confirm the effectiveness of a particular treatment regimen. Conversely, a rise in CA 19-9 levels could indicate a need to change the treatment regimen. If CA 19-9 rises during surveillance, disease progression needs to be confirmed with clinical examination, diagnostic imaging, and/or biopsy. However, no agreement exists regarding the frequency with which the CA 19-9 assay should be performed or the magnitude of change or time period of change of CA 19-9 levels that is considered significant. [25] CA 19-9 for colon cancer Currently, insufficient data exists to recommend CA 19-9 for screening, diagnosis, staging, surveillance, or monitoring the treatment of patients with colorectal cancer. [25, 28] Pancreatic cancer is just one of several conditions that may cause elevated levels of CA 19-9. Increased levels can be seen in healthy individuals, in benign conditions, and in other malignant conditions. [17, 18] In particular, cholestasis and jaundice, such as from bile duct disease, cirrhosis, or pancreatitis, can falsely elevate CA 19-9 levels and cause diagnostic uncertainty. CA 19-9 levels correlate with alkaline phosphatase levels, which further associates the 2 mechanisms of CA 19-9 elevation by secretion from pancreatic cancer cells and cholestasis. Serial determination of levels after relief of jaundice and/or the use of higher cut-off levels in patients with jaundice could be necessary to exclude pancreatic cancer in patients with normal imaging and clinical studies. [1] Since this marker cannot be synthesized in approximately 5% of the population (ie, those who lack the Lewis antigen or are Lewis A-B-), CA 19-9 levels may be falsely low even in the presence of pancreatic cancer. Because of the low prevalence of pancreatic cancer in the general population and the possibility of elevated tumor marker levels in conditions other than pancreatic cancer, the CA 19-9 assay is not accurate enough to be used as a screening tool in the asymptomatic population. [2, 19, 25] CA 19-9 levels are increased in only about 40% of stage I pancreatic cancers, and levels may be normal even up to several months prior to clinical signs of pancreatic cancer. [19] However, the higher the levels of CA 19-9, the greater the PPV and specificity in diagnosing pancreatic cancer. When CA 19-9 levels were greater than 1000 U/mL, the PPV and specificity approached 100% and were correlated with unresectable tumors. [2] Studies also show that CA 19-9 levels may correlate with tumor burden, disease recurrence, and response to treatment. Thus, CA 19-9 is a better marker for advanced pancreatic neoplasms than for early-stage disease. Low sensitivity in early-stage pancreatic cancer and low overall specificity are important limitations of CA 19-9 that preclude the use of this assay as a screening tool for pancreatic cancer. Although not yet standardized, CA 19-9 may also be used to determine surgical resectability and predict postoperative outcomes. Future studies are needed to detail the use of this marker in patients with jaundice and/or cholestasis. The purpose of a CA 19-9 test is to measure the amount of CA 19-9 in the blood. CA 19-9 is a type of tumor marker. Tumor markers are substances found in tissue, blood, or other body fluids that may be a sign of cancer or certain noncancerous conditions. Testing may be performed for a number of reasons, including: Diagnosing cancer and other medical conditions: CA 19-9 can be elevated as a result of pancreatic cancer and other cancers of the digestive system. It can also be increased by non-cancerous conditions such as scarring of the liver. Because it may be affected by multiple conditions, CA 19-9 testing is not used as the only test to make a diagnosis. Instead, CA 19-9 measurements are usually combined with the results of other tests, such as imaging and biopsy, to diagnose cancer or other diseases. Evaluating cancer treatment: For people who have already been diagnosed with cancer, periodic monitoring of CA 19-9 can help doctors evaluate how the cancer is responding to treatment. In patients with pancreatic cancer, for example, a CA 19-9 level will generally be taken after diagnosis. This is referred to as a baseline measurement and can be compared to future levels taken during or after treatment. Estimating cancer prognosis: The level of elevation of CA 19-9, both at initial diagnosis and after treatment, is one of several factors that may help doctors estimate a patient's prognosis. Prognosis is the likely outcome of a disease, and it can also be affected by things like the stage or extent of a disease, any coexisting conditions, and a patient's overall health. Monitoring for cancer recurrence: Doctors may use CA 19-9 testing to evaluate pancreatic cancer patients who have received treatment with surgery to check for evidence of a recurrence. A recurrence is the return of a disease, usually after a period of time when it was not detectable. CA 19-9 testing is not indicated for use as a method to screen for cancer. Screening refers to searching for evidence of a disease when there are no symptoms. What does the test measure? CA 19-9 testing measures the amount of cancer antigen 19-9 released into the bloodstream. This substance is produced by many cells in the body, including some types of healthy cells and certain cancer cells. Procedures for collecting a blood sample used for CA 19-9 testing are performed in a doctor's office, hospital, laboratory, or other medical setting after being ordered by a healthcare professional. Can I take the test at home? Tests to measure CA 19-9 in the blood or at-home blood tests for cancer are not currently available as an at-home test kit. How much does the test cost? The cost of CA 19-9 testing depends on a variety of factors, such as a patient's health insurance coverage, where the test is performed, and any additional testing that is conducted at the same time. Total costs may include those associated with obtaining and analyzing the test sample as well as charges for an office visit. CA 19-9 testing may be covered by health insurance. It could help to contact the health insurance provider or the hospital or laboratory conducting the test for more information about out-of-pocket costs, such as copays or deductibles. For patients without health insurance, or for whom insurance doesn't cover the cost of testing, a doctor or hospital administration can further discuss the out-of-pocket cost of CA 19-9 testing. A CA 19-9 test is usually performed on a sample of blood. A health care professional will take a blood sample from a vein in your arm using a small needle. Before the test You generally don't need to take any special preparations for a CA 19-9 blood test, but you can check with your doctor for any pretest instructions to follow. During the test During the test, a health professional draws blood, usually from a vein located on the inside of the elbow or the back of the hand. A blood draw generally involves the following steps: An elastic band is used as a tourniquet around the upper arm. This will make the veins beneath the band swell with blood. The site where the needle will be inserted is cleaned with an antiseptic wipe. A small needle is inserted into the vein. Blood collects into a vial or tube attached to the needle. The elastic band is removed. The needle is removed, and the site is covered with a bandage. You may feel slight pain or a sting when the needle is inserted. Some people may experience dizziness, sweating, or nausea during the test. The test usually takes 5-10 minutes. After the test There is very little risk to having a blood test. You may have swelling, tenderness, inflammation, bruising, or persistent bleeding at the injection site. However, most symptoms go away quickly. Rare adverse effects may include infection. Contact your doctor if you have signs of an infection or any long-lasting effects. Talk with your doctor if you have any concerns regarding the potential side effects associated with testing, including whether there are any restrictions to work or other activities. Patients can expect to receive the results of their CA 19-9 test within a few business days after the laboratory receives the blood sample. Your doctor may contact you directly, or a follow-up visit may be scheduled to discuss the findings of the test. Sometimes test reports are made available via an online health portal, or a physical copy can be sent by mail. In some cases, doctors may wait to share the results of CA 19-9 testing until additional testing has been completed. Interpreting test results CA 19-9 levels are measured in units per millimeter (U/mL). The test report may also include an interpretation of the measurement, such as whether it is normal or abnormal. Normal levels typically range between 0-37 U/mL. CA 19-9 levels can be elevated in healthy people without any underlying illness. High CA 19-9 levels can also be related to various conditions including: Cancers of the pancreas, colon and rectum, liver, gallbladder, bile duct, stomach, ampulla of Vater, ovary, and bladder Cholangitis, which is an infection of the bile ducts Pancreatitis, which is inflammation of the pancreas Cirrhosis of the liver Bile duct obstruction, such as from gallstones Because elevated levels are not always a sign of a health problem, research is still determining how to interpret CA 19-9 testing for diagnosis, prognosis, and treatment of various conditions. As such, CA 19-9 testing is most frequently used alongside other types of testing. It is important for patients to discuss the meaning of their CA 19-9 test with their doctor, who is in the best position to explain its significance in their individual situation. The way that CA 19-9 testing is interpreted can depend on the context in which the testing is used: Diagnosis: As a diagnostic test, an elevated CA 19-9 level may suggest the presence of cancer or other conditions; however, it should not be used as the only test to make a diagnosis. Measurements are usually interpreted with the results of other tests, such as imaging and biopsy. Monitoring: CA 19-9 levels may be monitored periodically during or after cancer treatment. This can help doctors evaluate how a patient's cancer is responding to treatment. A fall in CA 19-9 levels could help confirm the effectiveness of a particular treatment. Conversely, a rise in CA 19-9 levels could indicate a need to change the treatment regimen. Predicting prognosis: CA 19-9 test results may be used to help estimate cancer prognosis, but it is not used alone for this purpose. For some types of cancer, patients with high levels of CA 19-9 at diagnosis or shortly following treatment may have a worse prognosis than those with lower CA 19-9 levels. Detecting recurrence: CA 19-9 levels that start low and later increase can point to cancer that has come back after a patient has completed treatment. Rising CA 19-9 levels usually precede other evidence of recurrent disease seen on imaging tests like a CAT scan or MRI. However, a rising CA 19-9 does not always indicate a recurrence, so confirmation of disease progression should be pursued with imaging studies and/or biopsy. Because CA 19-9 levels are interpreted based on the specific situation, a doctor is best able to explain the significance of a CA 19-9 test result. Are test results accurate? Laboratories can use different methods to measure CA 19-9. For this reason, patients undergoing serial monitoring of CA 19-9 levels should verify that the same method is being used for each test. The test report typically lists the method used to assess CA 19-9 levels. Do I need follow-up tests? CA 19-9 testing is generally used alongside other types of testing. Other tests that may be done with CA 19-9 testing or as follow-up include imaging tests like a CAT scan, PET scan, or MRI as well as other laboratory tests and, when necessary, a biopsy. Questions for your doctor about test results When reviewing your CA 19-9 test with your doctor, some of the following questions may help you best understand the test's significance in your case: How do the results of my CA 19-9 test relate to my diagnosis and care? Should I have any other tests in addition to the CA 19-9 test? How frequently will I have CA 19-9 testing after I complete treatment? What happens if my CA 19-9 levels increase after treatment? Will all of my CA 19-9 tests use the same laboratory method? Cancer antigen 19-9 (CA 19-9) is a protein that exists on the surface of certain cells. CA 19-9 does not cause cancer; rather, it is a protein that is produced by the tumour cells, making it useful as a tumour marker to follow the course of the cancer. CA 19-9 is elevated in most patients with advanced pancreatic cancer, but it may also be elevated in other cancers and diseases such as bowel cancer, lung cancer and gall bladder cancer, as well as in benign diseases such as gall stones, pancreatitis, cystic fibrosis, and liver disease. Because elevated levels of CA 19-9 are seen in many diseases, elevated levels do not necessary mean the presence of pancreatic cancer. Very small amounts of CA19-9 may also be found in healthy patients.