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Ck mb test normal value

The Creatine Kinase MB (CK-MB) test is a blood test used to measure the levels of the CK-MB enzyme. This enzyme is primarily found in heart muscle cells and plays a key role in energy production during muscle contraction. When heart muscle cells are damaged, such as during a heart attack, it is released into the bloodstream. Therefore, elevated levels of CK-MB in the blood can indicate heart muscle injury. The test is commonly used to diagnose myocardial infarction (heart attack) and assess the extent of heart damage. Additionally, it helps monitor the effectiveness of heart treatments and track the recovery process after cardiac events. Test ResultThe test result for Creatine Kinase MB (CK-MB) measures the enzyme’s concentration in the blood. Elevated CK-MB levels indicate heart muscle damage, while normal levels suggest no significant injury. The results are used in combination with other tests to assess heart health. UnitCK-MB is typically measured in nanograms per milliliter (ng/mL), which indicates the concentration of the enzyme in the blood. Reference RangeThe reference range for CK-MB is generally less than 5 ng/mL. However, this value may vary depending on the laboratory and the test method used. Elevated CK-MB levels, especially above 10 ng/mL, can indicate a myocardial infarction. Test MethodsThe CK-MB test is usually conducted using immunoassays or enzyme-linked immunosorbent assays (ELISA). These methods accurately quantify the CK-MB enzyme in the blood. Additionally, some tests use mass spectrometry for more precise measurements. The Creatine Kinase MB (CK-MB) test plays a crucial role in diagnosing myocardial infarction (heart attack). Elevated CK-MB levels are typically seen within hours of heart muscle damage, making it an early marker for cardiac events. Consequently, the test helps healthcare providers assess the extent of heart damage and guide treatment decisions. Additionally, CK-MB levels are used to monitor recovery after a heart attack or other cardiac procedures. However, it is important to interpret CK-MB results alongside other cardiac markers, such as troponin, for a comprehensive diagnosis. Elevated CK-MB can also indicate muscle injury in other parts of the body, not just the heart. Therefore, the test’s clinical significance extends beyond heart disease, aiding in the overall assessment of muscle damage. The CK-MB test measures the Creatine Kinase MB enzyme in the blood to assess heart muscle damage. Elevated CK-MB levels indicate myocardial infarction (heart attack) or other heart-related injuries. The test is most useful within the first 24 hours after a heart attack for early detection. CK-MB is a sensitive marker but should be used alongside other tests like troponin for accurate diagnosis. The reference range for CK-MB is typically less than 5 ng/mL, though it may vary by laboratory. Immunoassays and ELISA methods are commonly used for measuring CK-MB levels in clinical settings. The CK-MB test helps monitor recovery after heart events and assess the effectiveness of treatments. Muscle damage elsewhere in the body can also cause elevated CK-MB levels, not just heart injury. The test provides critical insights into heart health, guiding medical management for heart conditions. Timely CK-MB testing can significantly impact treatment decisions and improve patient outcomes. Search by name, specialty, location and more. Find a doctor Find any of our 300+ locations. Get directions Get the in person or virtual care you need. Schedule now We don’t just care for your health conditions. We care about you. That means our providers take the time to listen to what’s important to you before recommending next steps. Cleveland Clinic is recognized in the U.S. and throughout the world for its expertise and care. You’ll get care from board-certified and fellowship trained experts who work together to create a treatment plan just for you. Only the highest standards ensure excellent outcomes. We’re focused on today — and tomorrow. Our focus on research and offering the latest options means you can find a wide range of clinical trials and other care that you can’t find elsewhere. Explore a curated collection of helpful resources and tools for medical professionals Whether you’re just graduating from nursing school or have years of experience, you can build an exceptional career in nursing at Cleveland Clinic. As one of the nation’s — and the world’s — leading academic medical centers, you can grow in a setting where you’ll make a difference. Find your career at Cleveland Clinic. We welcome the opportunity to partner with you in caring for your patients. Our dedicated Referring Physician team is available from 7 a.m. to 7 p.m. EST every day for you and your patients. View our full list of resources for medical professionals, including our Alumni Association, DrConnect, and MyPractice. Creatine kinase (CK) is an enzyme that occurs in three major forms, called isoenzymes: CK-MB (found mostly in heart muscle) CK-BB (found mostly in brain) CK-MM (found in muscles) CK–MB rises when there is any damage to heart muscle cells. Total CK is routinely available in most laboratories and used to indicate muscle disease. LP15513-2 Creatine kinase.MB Creatine kinase MB is the quantitation of the specific cardiac protein CKMB that is used in diagnosing myocardial infarction. Elevated values can be often be detected within 3-6 hours following the onset of chest pain. Testing should be performed at appropriate intervals because CKMB concentration peaks within 12-24 hours and generally returns to normal at 24-72 hours. Abnormal CKMB concentrations are often associated with ischemia or necrotic injury to the heart. Other conditions which may give elevated CK-MB values when the diagnosis of myocardial damage is unclear include skeletal muscle trauma, muscular dystrophy, dermatomyositis, Reyes syndrome, rhabdomyolysis, drug overdose, delirium tremens, chronic ethanol poisoning, and myopathic disorders. Source: Regenstrief Institute Long Common Name Creatine kinase.MB [Mass/volume] in Serum or Plasma Short Name CK MB SerPl-mCnc Display Name CK.MB [Mass/Vol] Consumer Name Alpha Get Info Creatine Kinase-MB Form (CK-MB), Blood Copyright © 2025 Regenstrief Institute, Inc. All Rights Reserved. To the extent included herein, the LOINC table and LOINC codes are copyright © Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee. See for the full LOINC copyright and license. Are you worried about your heart health? Get the CK-MB blood test to learn your heart's actual condition. CK is also known as creatine phosphokinase (CPK). The test measures the creatine kinase-MB levels, an enzyme in the heart muscle. It is crucial for diagnosing and monitoring heart conditions such as heart attacks and myocardial infarction. Additionally, the doctor evaluates the CK-MB levels to check for heart muscle damage and guide treatment effectively. This article typically provides comprehensive information about the CK-MB test, including how to prepare for it, the procedure, risks, the CK-MB normal range, and more. So, why wait? Let’s discover it in detail. What is a creatine kinase? Creatine Kinase (CK) is an enzyme that supports muscle energy production. It has three isozymes: CK-MM, CK-MB, and CK-BB. The main job of the CK is to add a phosphate group to creatine. A phosphate group is a naturally occurring group of chemicals, and creatine is a substance in muscle cells that aids muscle energy production. An increased amount of CK is involved with heart attack, skeletal muscle injury, intense exercises, or muscle disorders. On the other hand, CK’s activity also affects the gastrointestinal tract, urinary bladder, and brain. Importance of Creatine Kinase-MB Test Creatine Kinase- MB (CK-MB) test is done to detect the presence of CK-MB enzyme in the blood. The test differentiates between skeletal and heart muscle damage. A healthcare provider also suggests the creatine-kinase Test if a troponin test is unavailable. He wants to determine if you have had a heart attack. High CK-MB levels can indicate the need for cardiac injury, allowing the expert to make informed decisions about your treatment. A CK-MB test has several purposes, which we will discover in today’s blog. Before that, let's examine the symptoms associated with a creatine kinase-MB test. Common symptoms associated with a CK-MB test: Shortness of breath Tiredness Sudden sweating Lightheadedness Nausea Vomiting Pain in the neck, jaw, back, or left arm Pain or discomfort What is the purpose of a CK-MB test? Also known as the CPK test, the CK-MB test is the most specific indicator for diagnosing an acute myocardial infarction. It is done for several purposes, including: Diagnose conditions: The primary purpose of a CK-MB test is to detect conditions associated with heart muscle damage. Usually, a doctor suggests troponin T and troponin tests to check for cardiac problems; in some cases, the CK-MB test is also done to help detect a second or subsequent heart attack. Measures the CK-MB levels: A CK test is also done to measure the levels of Creatine Kinase-MB. An increased CK amount in the blood indicates possible skeletal muscle injury or heart damage. Nonetheless, more recently, the elevated CK levels resulted in several deaths. Diagnose muscle diseases: The test is most often used to help diagnose and monitor muscle diseases such as: Muscular dystrophy refers to a group of more than 30 genetic conditions that cause muscle weakness and loss of muscle mass. Rhabdomyolysis refers to the breakdown of the muscle tissue, releasing proteins and electrolytes in the blood. It is an uncommon condition that can damage the heart and cause sudden kidney failure. Myositis is a rare autoimmune disease in which your immune system attacks your muscles. It can cause long-term inflammation, weakness, and sometimes pain. Diagnose severity of stroke: A CK test may also be done to determine the severity of a stroke or traumatic brain injury (TBI). Also, it helps predict the chance of getting a stroke in the future. Medications: A doctor may also prescribe the CK-MB test if you take medications such as statins to lower high cholesterol, which may cause muscle damage. Strategies to prevent heart disease Below are helpful tips to prevent heart disease: Regular physical exercise Quit tobacco and smoking Salt in moderation Eat a well-balanced diet Maintain a healthy weight Monitor your cholesterol Reduce alcohol consumption Maintain your blood sugar and BP level Also read: What are the benefits of a CK-MB test? A CK-MB (creatine kinase-MB) is a blood test primarily used to diagnose heart attacks and other cardiac conditions. Below are the key benefits of a CK-MB test: The CK-MB test helps confirm if chest pain or other symptoms occur due to a heart attack. When a heart muscle is damaged, CK-MB levels rise. CK-MB helps differentiate heart-related damage from muscle injuries that occur due to intense exercise, trauma, or other conditions. Serial CK-MB tests help track heart muscle damage and its progression. CK-MB is helpful in quick and early detection. The levels rise within 3-6 hours of a heart attack, peak around 12-24 hours, and then return to normal 48-72 hours. A CK-MB test can help differentiate between old and new heart muscle damage. Additionally, the CK-MB also shows that the increased CK-MB levels are due to myocarditis and other heart-related muscles. What is the normal range for CK MB? A CK-MB blood test measures the creatine kinase (CK) amount in your blood. The test results interpretation: CK-MB levels in men and women Normal range: 0–5 ng/mL (nanograms per milliliter), or less than 5% of total CK levels. This indicates no significant heart muscle damage. Mildly elevated levels (5-10 ng/mL) This may indicate minor heart stress, muscle injury, or early myocardial infarction. Significantly elevated levels (>10 ng/mL or >6% of total CK): It is suggestive of a heart attack or severe cardiac muscle damage. Not to be missed The CK-MB levels rise within 3-6 hours after a heart attack, peak at 12-24 hours, and normalize within 48-72 hours. How to Manage Abnormal CK-MB levels Abnormal CK-MB (creatinine kinase-MB) levels indicate damage to the heart muscle. Cardiac or non-cardiac reasons can cause these levels. Cardiac reasons behind elevated CK-MB levels: Myocardial infarction (heart attack). In this condition, the CK-MB levels rise within 3-6 hours after a heart attack and peak within 12-24 hours. Myocarditis: It is the inflammation of the heart muscle, resulting in elevated CK-MB levels. Pericarditis is inflammation of the heart lining, resulting in a mild rise in CK-MB levels. Cardiac surgery or procedures: Sometimes, bypass surgery, angioplasty, or even a pacemaker implant can increase CK-MB levels. Heart failure: damaged heart muscles due to congestive heart failure resulting in an elevation. Non-cardiac reasons behind elevated CK-MB levels include: Trauma or injury such as burns, muscle injury, or electrical shocks results in elevated CK-MB levels. Severe physical exercise: Strenuous exercises can also cause a temporary rise in CK-MB levels. Sepsis or severe infection can directly affect the heart muscle. Abnormal thyroid level: Muscle metabolism can be impacted by thyroid imbalance (hyperthyroidism or hypothyroidism). Lung conditions: Blood clot formation may increase the CK-MB levels. Note: Show your reports to your healthcare provider to understand the meaning of your specific test results. He will assess your CK-MB test results and curate personalized treatment plans to manage the underlying condition. Helpful Tips to manage abnormal CK-MB test results Below are helpful tips for managing abnormal CK-MB test results: Elevated levels Need for immediate care: Elevated CK-MB levels can be managed with immediate care. If a doctor suspects heart attacks, he may suggest angioplasty or thrombolysis. Medications such as beta-blockers or ACE inhibitors can be suggested to manage heart conditions. Lifestyle changes include a heart-healthy diet, regular exercise, and quitting smoking. Mild Levels Additional Testing: A healthcare provider may also suggest ECG or troponin tests, as they more specifically show heart damage. Regular checkups: Mild elevated CK-MB levels can be monitored over time through regular follow-ups. Conclusion The CK-MB blood test is a valuable diagnostic tool for assessing heart muscle damage. Elevated CK-MB levels are often linked to heart-related conditions such as muscle injuries, infections, or strenuous physical activity. Various factors can cause fluctuations in CK-MB levels; therefore, additional testing, such as troponin tests, ECG, and clinical evaluation, may be suggested for accurate diagnosis. Discuss reports with your healthcare provider for further medical evaluation, determine the underlying cause of abnormal CK-MB levels, and initiate appropriate treatment. FAQ: 1. How can I prepare for a CK-MB test? Eat your regular meals before the test (no fasting is needed). Stay hydrated to prepare for the blood draw. Ask your doctor if you must stop taking your regular medicines before the test to avoid interfering with your result. 2. What happens during the CK-MB test? During the CK-MB test, a phlebotomist will insert a needle into a vein in your arm to collect a small amount of blood. This collected blood sample will be labeled and sent to a diagnostic lab for analysis. 3. Are there any risks associated with the CK-MB blood test? The CK-MB blood test is simple and safe. The minimal risks involved are mild pain or discomfort and bruising or swelling at the puncture site. Although rare, if you experience infection, bleeding, or dizziness after the test, contact your healthcare provider immediately for medical assistance. 4. How long does it take to receive the CK-MB test results? Redcliffe Labs typically provides the CK-MB test results within 24 hours. The report can be downloaded from the website. 1 CommentsDevMay 4, 2025 at 7:08 PM.Mera ck mb 31 hai kya karoMyhealth TeamMay 9, 2025 at 12:58 PM.Agar aapka CK-MB level 31 hai, toh yeh heart muscle strain ya damage ka indication ho sakta hai. Doctor se consult karen aur further tests jaise ECG ya troponin test karaen. Apna lifestyle healthy rakhein aur doctor ke advice follow karen. Creatine phosphokinase (CPK) is an enzyme, which is predominantly present in the heart, brain, and skeletal muscles. Converting creatine into phosphate is the main task of this enzyme. The cells of the body then quickly consume or burn this phosphate and use it as an energy source.The levels of CPK notably increases when there is muscle damage or stress. The reason is that the muscle cells tend to burst open during muscle injury and the elements then flow into the blood. Thus, the level of CPK in the blood increases since a large amount of this enzyme is present in the muscle cells. Have a question aboutCreatine Phosphokinase (CPK)?Ask a doctor nowA person's CK-MB level is often checked in the hospital when signs of a heart attack are present. However, a muscle inflammation is indicated when the level of CPK is elevated during lupus treatment. It may be due to the activity of the disease or an overlapping condition. CPK levels also tend to increase after strenuous activities. For this reason, CPK levels can be tested after several days of rest.If a person's CPK level remains elevated without exercise or rest, the doctor may order additional tests to help determine which type of CPK is elevated. Such information will help the doctor determine if the damage is in the heart, brain, or skeletal muscles. The CPK level may also increase due to certain medications, such as statins. Inform your doctor if you are taking certain medications.How is the CPK test performed?A CPK test requires a blood sample for testing. Blood is usually withdrawn from a vein through the procedure called venipuncture. A repeat test may be done on admitted patients for 2-3 days. A slight pain may be felt when the needle is inserted to collect blood. Some people describe it as a stinging or pricking sensation with some throbbing afterward. Most of the time, there are no special preparations needed for this blood test. However, it is very important to inform your healthcare provider if you are currently taking medications. Aside from statins, the following drugs can increase the level of CPK: Alcohol Cocaine Certain anesthetics Amphotericin B Dexamethasone Fibrates Side EffectsMost people do not develop serious side effects after the blood test, although rare complications may occur, such as: Fainting Lightheadedness Excessive bleeding Infection at the site of blood extraction Seek immediate medical help if you experience any of the above-mentioned symptoms. Why is the test performed?A CPK test is usually done if a person shows signs and symptoms of a heart attack. The doctor may order this blood test to help diagnose a heart attack, identify the cause of chest pain, and determine the extent of heart or muscle tissue damage. This test can also help determine a variety of muscle problems or diseases, such as: Muscular dystrophy Dermatomyositis Polymyositis Malignant hyperthermia The most common cause of elevated CPK levels is muscle tissue injury. CPK tends to leak into the bloodstream when a muscle is damaged. Other causes of muscle breakdown include: Prolonged seizures Too much exercise Certain medications Normal CPK ResultsNormal CPK values may slightly vary among laboratories. Your healthcare provider is the one who will interpret the result of your blood test. The normal value of total CPK is 10-120 mcg/L. Abnormal CPK Results People who have any of the following conditions may have elevated CPK levels:The following conditions may also produce high CPK results: Pericarditis after a heart attack Hyperthyroidism Hypothyroidism The CPK test is also used in diagnosing and treating Duchenne muscular dystrophy (DMD). Usually, if the CPK level is high, it indicates myocardial infarction and some muscular disorders. After 24 to 36 hours of the onset of chest pain, the peak level of CPK occurs in myocardial infarction. The level can also be more than 10 times the normal level, depending on the extent of damage occurred.CPK-1CPK-1 is mainly found in the lungs and brain. Elevated levels of CPK-1 may indicate any of the following conditions: Brain cancer Stroke Seizure Pulmonary infarction CPK-2CPK-2 is usually found in the heart, and when there are elevated values of CPK-2, it may indicate the following conditions: Heart attack Myocarditis Accident-related heart injury Electrical injury Other causes of elevated CPK-2 in the blood include: Open heart surgery Heart defibrillation CPK-2 levels in the blood tend to increase after a heart attack, but also often decrease within 48 hours.CPK-3CPK-3 is mainly found in the skeletal muscles. Elevated CPK-3 levels may be caused by: Muscle damage from injuries Prolonged immobility Muscle damage due to substance abuse Inflamed muscles Other conditions that tend to increase CPK-3 levels may include: Seizures Muscular dystrophy Electromyography Muscle trauma due to surgery, contact sports, or being burned Additional Blood TestsUsually, blood is drawn in patients who arrive at the emergency room with a suspected heart attack. The CPK test is initially done in these patients. More specific blood tests will be ordered if the level of CPK increases after four and six hours. This test is called troponin T or I. Troponin T and I are proteins found in the blood. Both types of proteins are released when there is heart muscle damage due to a heart attack. A high level of troponin T and I in the blood indicates more damage to the heart. Other additional follow-up tests may include the following: Kidney function studies Imaging studies Urinalysis Other blood tests ConsiderationsThe levels of CPK in the blood are higher in people who perform heavy exercises and have greater muscle mass. Compared to other ethnicities, CPK levels tend to be higher in African Americans. Elevated CPK levels may also be caused by muscle damage and certain medications, such as statins. Lower levels of CPK may also occur during pregnancy.An abnormal CPK increase is often classified as mild, moderate, or severe. These classifications approximately correspond to less than 10 times of the upper normal limit, which is 2,000 IU/L. In general, individuals with renal damage along with elevated values of CPK is a cause for concern when CPK levels reach 5,000 IU/L, especially when patients have co-existing conditions, such as acidosis, sepsis, and volume depletion. Healthy Living Cryotherapy is a new type of treatment which is becoming more common for speeding up the recovery process, relieving pain and encouraging weight loss. Men's Health A biopsy is a medical or surgical procedure that involves taking a sample of a suspicious tissue for further microscopic examination. There are many things you should expect from an invasive or non-invasive biopsy. They include changes in your diet, physical activities, and the wound healing process. This article focuses on the things that you should expect after undergoing a biopsy procedure. Healthy Living Osgood-Schlatter disease is a a medical condition of the knees commonly found in growing children. The cause is normally associated with wear and tear of the muscles and ligaments as a result of excessive activities. Learn more about the disease, causes, symptoms and treatments. Women's Health When a woman has bacterial vaginosis (BV), the number of the “bad” bacteria becomes higher than that of the “good” bacteria. This causes the vagina’s interior to become inflamed, leading to the fish-like smelling discharge. Healthy Living Knee pain is a common problem encountered by many people especially middle aged and elderly individuals.There are several different reasons that can cause knee pain. In this article, we will learn a few tips to reduce or prevent knee pain. Healthy Living COPD cannot be cured, but it can be managed with medications to reduce the progression of the disease and improve an individual's quality of life. Management of COPD includes cessation of smoking, medications, inhalers, lung rehabilitation, and surgical interventions. Healthy Living Appendicitis is an inflammation of the appendix. There are two types of appendicitis - the severe one that requires surgery and the milder one that can be treated with antibiotics. Healthy Living Irritation, infection, and inflammation of the air cavities making up the sinus system are brought on by multiple factors that may or may not work in tandem. Allergies, infection, and chronic conditions are mostly responsible for triggering sinusitis. Healthy Living Sometimes there are cells in the cervix that are not supposed to be there. Pap smears can help to detect them. Read this article to learn more. Healthy Living Conventional treatment for testicular cancer makes a patient go through the rigors of surgery, chemotherapy and radiation treatment, all of which guarantee lifelong side effects that severely impact the quality of life. This is one of the main reasons why people are gravitating towards holistic medicine. Holistic healing succeeds in establishing a mind-body-soul connection that eludes the symptomatic treatment peculiar to conventional medicine. Healthy Heart Read this article to learn about how obesity can lead to high blood pressure in children. Women's Health As a hysterectomy involves organ removal, specifically the uterus, it is a major operation done under general anesthesia, and a reasonable post-surgical recovery period is a must. But unlike many other major operations, a hysterectomy is much easier to recover from and does not seriously impair one's ability to resume normal activities at home and work, provided that strenuous activities are avoided. Diet and Nutrition Type 2 diabetes is when there is a lack of insulin in your body. It could be because your body does not produce enough insulin, or because you have insulin insensitivity and you body cells are not able to utilize insulin though it’s available. Type 2 diabetes can even be a result of both cases happening at once. Healthy Living Gallstones are stones that are formed either in your gallbladder or the bile duct. A number of tests can be done to determine if you have gallstones or not. Read this article to know how gallstones are diagnosed. Healthy Living A hysterectomy can be a life-saver when uterine bleeding, infection, or cancer assumes life-threatening dimensions. It is a relatively simple surgery that is performed with minimum discomfort to the patient. Healthy Living Do you have back problems? Have you heard about spinal stenosis surgery? Are you wondering if this surgery is an option for you? Read about the reasons why you need spinal stenosis surgery. Healthy Living Staging of liver cancer is always done after diagnosis. Your doctors uses the information from your scans or tests results to stage your liver cancer accordingly. This staging is very important since it helps your doctor with your liver cancer prognosis and in determination of a treatment method. Healthy Living Kidney stones are ball-like structures that form in the kidneys and other organs in the urinary tract system of a person. Diabetes can cause certain conditions in the body that may make a person more susceptible to developing kidney stones. Read on to learn more about why diabetes may lead to kidney stones. Healthy Living There are many things you should expect after a bariatric surgery. One major thing is weight loss. Learn more! Beauty and Anti Aging Are you sick of using razors, depilatory creams or waxing? Are you looking for a permanent and a better solution? Have you ever considered laser hair removal? Laser hair removal is mostly recommended for cosmetic reasons. Women's Health Some women might assume that they have a yeast infection when they experience vaginal itching and having an unusual discharge. Many women self-medicate by buying over-the-counter drugs when their vagina gets irritated. It is advisable to see a doctor if the problem comes back as it might be caused by something else. Healthy Living Bladder cancer can be successfully treated if diagnosed at its early stages. Among the diagnostic procedures for bladder cancer are its signs and symptoms. Although the signs and symptoms of bladder cancer are somewhat similar to other urinary tract infections, it is an added advantage to know the specific symptoms of bladder cancer. Take a look at this article to learn more. Healthy Living Fibroids, cancer, and endometriosis are risk factors that have the potential to seriously impact a woman's childbearing capacity and overall health. Hysterectomy offers a permanent solution, one that eliminates distress and prevents cancer from spreading to other parts of the body. Healthy Living Have you been diagnosed with a chronic condition recently? Is your child diagnosed with autism? Do you have a parent who is aging every day even more? Do you have a loved one who had an accident which made it difficult for them to perform simple daily life activities? Well, these are all problems that occupational therapy is trying to address. Beauty and Anti Aging Breast augmentation cannot correct drooping breasts by itself. But a breast lift can work together with breast augmentation to make the breast look fuller and lifted.