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A high monocyte count, referred to as monocytosis, occurs when the body is subject to acute or chronic inflammation caused by things like infections, trauma, medications, autoimmune diseases, and certain cancers. Monocytes are white blood cells produced by the bone marrow that make up your frontline immune defense. There are no symptoms of high monocytes. Monocytosis is simply an indication of an illness or health condition which could be minor or serious. Monocytes are part of your innate (inborn) immune system. This is your body's first-line response to infections, trauma, disease, or other conditions that cause the body harm. As a part of innate immunity, monocytes do not rely on antibodies to target an immune assault. Instead, they patrol the body continuously to monitor for any foreign invaders and attack indiscriminately until the adaptive (antibody-based) immune system focuses the assault. Monocytosis occurs as the number of monocytes increases in response to acute (short and severe) or chronic (persistent or recurrent) infections or illnesses. High monocytes are detected with a complete blood count (CBC) which measures the number and proportion of blood cells in a sample of blood, including different white blood cells. High monocytes may be detected incidentally during a routine medical visit. Since monocytosis does not cause symptoms on its own, you may not even know there is a problem until lab results are returned. At other times, your monocytes may be checked if you have symptoms of an infection or illness. Testing may also be performed if you are recovering from an illness to see how you are doing. Monocytosis is diagnosed when your monocytes are above the normal range of values (meaning the high and low values between which levels are considered normal). These values are represented both as percentages of your total white blood cell count and the number of cells per cubic millimeter of blood (mm3). With most labs: A normal monocyte count is between 2% and 8% (or 200 to 800 mm3).A high monocyte count is generally above 10% (or 1,000 per mm3). Monocytosis is a general indication of an acute or chronic inflammatory condition. The cause may not be serious and will resolve on its own; in other cases, it may be the first sign of a serious illness, particularly if monocytosis is persistent and unexplained. The possible causes of monocytosis are many and include: Pregnancy Chronic stress Severe traumatic injury Bacterial infections, like tuberculosis, salmonella, syphilis, and bacterial endocarditis Viral infections, like mononucleosis, mumps, measles, and COVID-19 Fungal infections, like aspergillosis, cryptococcal meningitis, and systemic candidiasis Parasitic infections, like toxoplasmosis and malaria Autoimmune diseases, like lupus, rheumatoid arthritis, and inflammatory bowel disease Chronic inflammatory diseases, like sarcoidosis and Crohn's colitis Blood diseases, like sickle cell disease and hemolytic anemia Blood cancers, such as Hodgkin lymphoma, and chronic myelomonocytic leukemia (CMML) Medications, including the long-term use of corticosteroids, olanzapine, or allopurinol Splenectomy (removal of the spleen which serves as a reservoir for monocytes) Radiation therapy, particularly for bone marrow Heart attack, also known as myocardial infarction A high monocyte count on its own is not diagnostic of any medical condition. It simply indicates that the body is responding to a condition characterized by inflammation. When compared to other blood cells in the CBC, monocytes can offer clues to what is causing your illness. For instance, with chronic myelomonocytic leukemia (CMML), monocytes will characteristically be elevated while all other white blood cells, red blood cells, and platelets will be low. To help narrow the possible causes of your monocytosis, your healthcare provider will order additional tests, which may include: Blood smear (a sample of blood that is stained and examined under a microscope) Blood culture (used to grow and isolate disease-causing organisms in blood) Stool culture (used to grow and isolate disease-causing organisms in stool) C-reactive protein (a blood test used to detect generalized inflammation in the body) PCR tests (a type of blood test that can identify different infections based on their DNA) Rheumatoid factor test (a blood test used to check for signs of autoimmunity) STI panel (a panel of blood or urine tests to check for sexually transmitted infections) Bone marrow biopsy (the extraction of a sample of bone marrow to examine in the lab) The treatment of monocytosis depends on the cause. For example, antibiotics may be prescribed to treat a bacterial infection and certain parasitic infections, while antifungals can help clear serious fungal infections. People with leukemia, lymphoma, or CMML may be treated with chemotherapy, radiation therapy, or stem cell transplant. In some cases, medications like corticosteroids or immunosuppressants may be given to ease inflammation and decrease the monocyte count. This is a typical approach for certain autoimmune diseases or chronic inflammatory diseases like Crohn's colitis. During treatment, you may need to have your monocyte levels checked repeatedly. Testing at regular intervals helps to monitor the effectiveness of treatment. A high monocyte count (monocytosis) is a sign that your body is acting against infection or injury, or dealing with a chronic condition like an autoimmune disorder, inflammatory disease, or certain blood cancers. Monocytosis does not cause symptoms, although the underlying condition can. On its own, a high monocyte count cannot diagnose any conditions but may help narrow the causes when compared to other blood cells in a complete blood count (CBC). Monocytosis generally improves once the underlying cause is treated. Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution — You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Lots of medical conditions can cause high monocyte counts. If you're receiving treatment for one of these medical conditions, you'll probably have regular appointments so your provider can diagnose and treat the underlying condition.If you see anything on test results that concerns you, ask your provider to explain what it means.When should I go to the emergency room?If you have a medical condition linked to monocytosis, you should go to the emergency room if your symptoms get worse, you have new symptoms or your reaction to treatment is more than you expected.What questions should I ask my healthcare provider?Being diagnosed with monocytosis may be the first time you realize you may have a medical condition. Or you may already be dealing with the condition. Either way, you may have questions for your healthcare provider. Here are a few questions to consider:Why do I have monocytosis?Does this mean I have a serious medical condition?How will you find out what's causing my monocytosis?How soon will I know what's going on with my body?I know I have a medical condition that causes my high monocyte count. Does a high count mean my condition is getting worse? Your blood is made up of red blood cells, white blood cells, platelets, and plasma. White blood cells only make up about 1% of your blood, but they have an important function. As part of your immune system, they protect you against illnesses. Monocytes are a type of white blood cell that fight certain infections and help other white blood cells remove dead or damaged cells and fight cancer cells. (Photo Credit: Westend61/Getty Image) Monocytes are one of the five different types of white blood cells. The others are lymphocytes, basophils, neutrophils, and eosinophils.Monocytes are a type of white blood cell. White blood cells are an important part of your immune system. Like the other types of white blood cells, monocytes are produced in your bone marrow and then enter your bloodstream. After a few hours, monocytes move from your blood into your lung, liver, or spleen tissue where they develop into macrophages. These are scavenger cells that fight certain infections, destroy cancer cells, and help other white blood cells remove dead or damaged tissues.Monocytes are one of the five different types of white blood cells. The others include:Lymphocytes, which create antibodies to fight against viruses and bacteriaBasophils, which secrete chemicals such as histamine to help your body's immune responseNeutrophils, your body's first line of defense, are the most numerous among white blood cells. They kill bacteria and fungiEosinophils, which help with your body's allergic response and kill cancer cells and parasitesTo measure your monocyte levels, your doctor will test a sample of your blood.Complete blood count (CBC) with differentialThis blood test measures several components of your blood. You might also hear it called a full blood count or blood cell count. Your doctor may order one as part of your routine physical or to see if you have an infection or other condition, such as anemia.A complete blood count measures:Red blood cells, which carry oxygen from your lungs to other parts of your bodyHemoglobin, the protein in your red blood cells that carries oxygen.Hematocrit, which shows how much of your blood is made of red blood cellsMean corpuscular volume (MCV), a measure of the average size of your red blood cellsPlatelets, the cells that help your blood clot and stop bleedingWhite blood cells, which fight infections and other diseases The blood differential test tells your doctor the count of each of the five types of white blood cells. It also tells if the different types of white blood cells are in normal proportion to each other, if there are more or less of them than normal, and if any abnormal or immature white blood cells are present. Absolute monocyte countAn absolute monocyte count tells how many monocytes are in your blood. To get it, the lab multiplies the percentage of monocytes from your complete blood count by the total number of white blood cells in your blood. This number tells your doctor if your monocyte count is normal, too high, or too low.A CBC with differential is done by collecting a sample of your blood from a vein in your arm into a tube. Unless your doctor has ordered other blood tests at the same time, you usually do not need any special preparation for this test. Your doctor will tell you if you need to fast before these tests.In healthy people, monocytes make up about 1%-9% of total white blood cells. You might see this reported as an absolute monocyte count in the range of 0.2-0.6 × 109 monocytes per liter of blood. Ask your doctor if you need help interpreting test results.The complete range of normal white blood cells includes:Neutrophils: Between 55% and 70% of total white blood cellsLymphocytes: Between 20% and 40% of total white blood cellsMonocytes: Between 2% and 8% of total white blood cellsEosinophils: Between 1% and 4% of total white blood cellsBasophils: Between 0.5% and 1% of total white blood cellsMonocytosisA monocyte count that is higher than the normal range is called monocytosis. In medical terms, monocytosis is when your absolute monocyte count is greater than or equal to 1 × 109 monocytes per liter of blood.Monocytosis doesn't usually cause symptoms. If you do have symptoms, they'll usually be from whatever is causing your high monocyte count. High monocyte count causesHigh monocyte count is most often linked to long-term infections, blood disorders, or autoimmune conditions. Some causes of monocytosis include:Short-term or long-term infections, including viral infections such as COVID-19 or mononucleosis or bacterial infections such as tuberculosisBlood disorders, such as sickle cell disease or hemolytic anemiaAutoimmune or inflammatory disorders such as inflammatory bowel disease, sarcoidosis, and lupusShort-term or long-term stress. Intense exercise can cause a temporary high monocyte count and so can emotional stress.Reaction to some medications, such as steroids PregnancySplenectomy (removal of your spleen)In some cases, certain types of cancer, especially leukemias and lymphomas How to treat monocytosisMonocytosis itself is only a sign, so, your treatment will depend on what's causing it. Your doctor may do tests to help determine the cause of your monocytosis. Once that's determined, they'll give you appropriate treatment if needed.MonocytopeniaA monocyte count that's lower than the normal range is called monocytopenia. Monocytopenia is when your absolute monocyte count is less than or equal to 0.5 × 109 monocytes per liter of blood.If you have symptoms with monocytopenia, they're usually from whatever caused your low monocyte count.Low monocyte count causesYou can have a low monocyte count because of some conditions, medical treatments, or injuries that lower your total white blood cell count. These include:Infections, such as Epstein-Barr virus, adenovirus, or HIVBloodstream infections, such as bacterial sepsisTaking steroids or immunoglobulin therapyCancer treatments, such as chemotherapy or radiation therapy)Surgery on your stomach or intestinesHemodialysisA genetic condition called GATA2 deficiencyBone marrow disorders, such as aplastic anemiaBurn injuriesCertain cancers, especially leukemias and lymphomas. These may include hairy cell leukemia and acute lymphoblastic leukemia or Hodgkin's lymphoma How to treat monocytopeniaYou don't need treatment for monocytopenia itself. Your doctor may do tests to figure out what's causing it and treat that if needed.If a medical treatment causes your low monocyte count, your doctor may change your dose or the time you take your medication. Never stop or change your medications without talking to your doctor first.If your low monocyte count is caused by an underlying condition or infection, your doctor will treat it.If you have low levels of vitamins that are important for your immune system function (such as vitamins B12, C, or D), your doctor may recommend vitamin supplements.You may be able to improve your monocyte function with a healthy lifestyle. For instance:Eat a well-balanced diet.Exercise regularly.Reduce or manage your stress.Don't smoke.Use alcohol in moderation.Protect yourself against infections by washing your hands often and avoiding contact with people who are sick.If your monocyte count is high or low because of a health condition or medication, follow your doctor's instructions. Your doctor may be able to suggest other ways to improve your immune function, such as vitamin supplements. Conditions vary based on the number of monocytes in your blood. Your monocyte count can be too high or too low from your body fighting an infection or disease. Sometimes, abnormal monocyte counts are a treatment or medication side effect.MonocytosisA high monocyte count (monocytosis) is a potential sign of many different conditions. It's often linked to infectious diseases, like mononucleosis, or an autoimmune disease, like lupus. Causes of high monocytes include:Autoimmune diseasesBlood disordersCancerCardiovascular diseaseChronic stressInfections (short term and long term)Inflammatory disordersPregnancyMonocytopeniaMonocytopenia is when your monocyte levels are low. Anything that decreases your overall white blood cell count can cause low monocytes. Causes of low monocytes include:Aplastic anemiaBlood infectionBurn injuriesHIVChemotherapyWhat are common tests to check the health of my monocytes?A blood test checks the health of your monocytes. Two tests specifically identify how many monocyte cells are in your body:Complete blood count. A complete blood count (CBC) with differential counts the five types of white blood cells in your blood sample to verify whether or not your cell count is normal, too high or too low.Absolute monocyte count. An absolute monocyte count identifies how many monocytes are in a sample of your blood.What are common symptoms of monocyte conditions?If you have a low or high monocyte count, you likely won't experience any symptoms from the count itself. Instead, any symptoms you might feel are a side effect of a disorder that caused your monocyte count to be abnormal.What are common treatments for monocyte conditions?Treatment depends on your diagnosis and the severity of your condition. It could be as simple as changing the foods you eat or as significant as treating an underlying condition with chemotherapy. Your healthcare provider will suggest treatments specific to your diagnosis to help you choose the best way to increase or decrease your monocyte count.How do I reduce my high monocyte count?Treatment to decrease your monocyte count includes:Avoiding foods that cause inflammation.Exercising regularly.Limiting alcohol consumption.Managing or treating current medical conditions.How do I increase my low monocyte count?Treatment to increase your monocyte count includes:Changing the dosage or timing of medications when appropriate.Managing underlying medical conditions.Treating current infections.Taking vitamins to improve your immune system (B12, C, D) if you have a deficiency. Monocytes are the largest of all white blood cells and play an important role in the defense against germs and in inflammation. What do high levels mean? What factors can decrease them? Learn more here. High Levels of Monocytes (Monocytosis) Monocytosis is a condition in which the number of monocytes circulating in the blood is increased to more than 0.8×109/L in adults. Conditions Associated with Monocytosis Blood disorders (myelodysplastic disorder, acute monocytic, chronic myelomonocytic leukemia, Hodgkin and non-Hodgkin lymphoma) [1, 2, 3] Infections (tuberculosis, viral infections, bacterial endocarditis, brucellosis, malaria, syphilis) [4, 5, 6, 7, 8, 9] Autoimmune diseases (systemic lupus erythematosus, rheumatoid arthritis, inflammatory bowel disease) [10, 11, 12] Sarcoidosis [13] Cancers (ovary, breast, rectum) [4, 14] Heart attack [4, 15] Appendicitis [16] HIV infection [4, 17] Depression [18] Childbirth [19, 20] Obesity [21] Severe pneumonia [22] Alcoholic liver disease [23] Causes shown here are commonly associated with this symptom. Work with your doctor or other health care professional for an accurate diagnosis. Symptoms and Causes Monocytosis most commonly occurs during and after chronic inflammation or infection [24]. However, several other conditions can also be associated with monocytosis, such as heart disease, depression, diabetes, and obesity [25, 26, 27]. The conditions most commonly associated with high monocyte levels are: Chronic (long-term) inflammation [24] Infections, such as tuberculosis, malaria, and syphilis [28, 29, 30] High monocyte levels may also be linked to: Autoimmune diseases, such as lupus, rheumatoid arthritis, and IBD [12, 10, 11] Leukemias, such as chronic myelomonocytic leukemia, and juvenile myelomonocytic leukemia [31, 32] Cancer [33] Depression [18] Obesity [34] Few symptoms are considered to be caused by monocytosis itself. Instead, according to many researchers, symptoms arise from the diseases associated with monocytosis [26]. These symptoms include: Fever [35] Pain [36] Swelling [35] How Are High Monocytes Linked to Health? 1) Atherosclerosis Monocytes and macrophages are involved in the development and worsening of atherosclerosis (hardening of the arteries) that can lead to heart disease and stroke [37]. Monocytes accumulate in blood vessels and contribute to the development and rupture of atherosclerotic plaques that block blood vessels [38, 39, 40]. As atherosclerosis progresses, the number of monocytes in the blood tends to rise [41]. 2) Inflammation in Diabetes A clinical study found no link between diabetes and the number of circulating white blood cells, but monocytes were significantly more numerous in people with complications of diabetes [42]. Some researchers believe that monocytes may be responsible for harmful inflammatory complications in diabetes. Studies have shown that monocytes secrete TNF-alpha, IL-6, and IL-1 in both type 1 and type 2 diabetic patients; these proinflammatory molecules are thought to promote blood vessel diseases (like atherosclerosis) [43, 44, 45, 46, 47, 48]. 3) Mortality Rates In a large study of over 4,000 adults in a Swiss hospital, patients with monocytosis experienced more and worse complications than those without. Furthermore, patients with monocytosis had lower survival rates during their hospital stay [25]. In a separate study of elderly Korean men and women, monocytosis was associated with an increased risk of cardiovascular and cancer-related death [24]. This connection has not been researched well enough to state for certain that monocytosis can predict mortality rate. However, current research has largely supported the association [25, 24, 26]. 4) Heart Attack Recovery After a heart attack, monocytes repair heart damage by removing damaged and dead heart cells. However, animal studies suggest that elevated monocytes are associated with impaired healing after a heart attack [49, 50]. Factors That Increase Monocytes Several hormones have been associated with increased monocytes. 1) Leptin Human leptin increases monocyte growth and cytokine production because leptin is a proinflammatory cytokine [51]. Leptin levels correlate with body weight. 2) Menopause There is an increase in blood monocyte number during menopause. Moreover, monocyte counts decline following estrogen replacement therapy [52]. 3) Growth Hormone Growth hormone injections increase white blood cell counts, including monocytes [53]. 4) Testosterone Testosterone injections increased the number of monocytes, granulocytes, and large lymphocytes in mice [54]. Ways to Decrease Levels Monocytosis is a condition that requires diagnosis and treatment by a medical professional. Talk to your doctor before attempting any strategies to decrease monocyte count. 1) Regular Exercise Regular exercise is anti-inflammatory. In one study, monocytes significantly decreased after a six-week course of moderate-intensity cycling in overweight women who hadn't been regularly exercising. Monocyte counts have also been significantly associated with reduced triglyceride levels, increased insulin sensitivity, and decreased body mass index [55]. 2) Weight Loss In obese people, weight loss was accompanied by a significant reduction in monocyte and neutrophil counts. The decrease in circulating monocytes correlated with better insulin sensitivity [21]. 3) Omega-3 Fatty Acids Regular consumption of omega-3 fatty acids—found in oily fish such as mackerel and salmon or fish oil supplements—may protect against atherosclerosis and heart disease [56]. People taking fish oil supplements were less likely to have inflammation in the blood vessel walls caused by monocytes. This effect was not as pronounced in people already taking medication to treat peripheral artery disease [57]. 4) Mediterranean Diet Some research suggests that the Mediterranean diet could reduce inflammation caused by monocytes [58, 59]. The Mediterranean diet is comprised of foods such as seeds, nuts, vegetables, fruits, whole grains, and monounsaturated fats from olive oil. 5) Moderate Alcohol Intake Alcohol influences monocyte function. In one study, the monocytes of people who drank a moderate amount of alcohol were less active, even after only a single drink. Monocytes exposed directly to alcohol also had a reduced inflammatory response to proinflammatory compounds [60, 61]. Moderate alcohol consumption, about 1 or 2 drinks per day, is associated with significantly reduced monocyte production of inflammatory cytokines TNF-alpha and IL-1beta. It is also associated with increased production of IL-10, an anti-inflammatory signal[62, 61]. We do not recommend increasing your alcohol intake for the purpose of curtailing inflammation. Talk to your doctor about more appropriate anti-inflammatory strategies. Other Factors That Decrease Monocytes 1) Cortisol and Glucocorticoids As administered by a doctor, a single dose of cortisol decreases monocytes by 90% at 4 to 6 hours after treatment. This reduction persisted for about 24 hours. Subsequently, monocyte levels return to normal 24 to 72 hours after treatment [63]. 2) Estrogen and Progesterone According to one study, estrogen (and possibly also progesterone) decreases monocyte count by preventing monocytes from reproducing. This mechanism could explain why cell-mediated immunity appears to drop during pregnancy [64]. 3) Infliximab Infliximab is an immune-suppressing drug prescribed for the treatment of inflammatory diseases such as Crohn's, ulcerative colitis, and rheumatoid arthritis [65, 66, 67]. Infliximab kills monocytes, which may help reduce inflammation in patients with chronic inflammatory diseases [68]. Learn More (11 votes, average: 4.82 out of 5)Loading... The information on this website has not been evaluated by the Food & Drug Administration or any other medical body. We do not aim to diagnose, treat, cure or prevent any illness or disease. Information is shared for educational purposes only. You must consult your doctor before acting on any content on this website, especially if you are pregnant, nursing, taking medication, or have a medical condition. Atypical amounts of these white blood cells are mainly caused by infection or a condition that affects your immune system. Treating the underlying condition can help raise or lower your monocyte levels.Monocytes are a type of white blood cell that comes from bone marrow. Monocytes, along with other kinds of white blood cells, help the body fight disease and infection. They can become either macrophage cells or dendritic cells, two types of white blood cells. When they become dendritic cells, they launch the inflammatory and anti-inflammatory processes that are part of your body's immune response to infection. Macrophage cells can destroy microorganisms and foreign material, eliminate dead cells, and boost the body's immune response.A blood cell count measures the number of white blood cells in your blood. When you get a comprehensive blood test that includes a complete blood count, you may notice a measurement for monocytes. It's often listed as "monocytes (absolute)" because it's presented as an absolute number. You may also see monocytes noted as a percentage of your white blood cell count rather than as an absolute number.Low levels can result from specific medical treatments or bone marrow problems, while high levels can indicate the presence of chronic infections or an autoimmune disease.Monocytes are the largest white blood cells, about twice the size of red blood cells. These powerful defenders aren't plentiful in the bloodstream, but they're vital in protecting the body against infection.Monocytes move throughout the bloodstream to the tissues in the body. They rest until needed and then transform into macrophages or dendritic cells.Dendritic cells use receptors to show the antigens to other immune system cells. They cause monocytes to travel through the body to the affected tissues.Macrophages kill microorganisms and fight cancer cells. They also work with other white blood cells to remove dead cells and support the body's immune system against foreign substances and infections.One way macrophages do this is by signaling to other cell types that there is an infection. Together, various kinds of white blood cells then work to fight off the infection.Monocytes form in bone marrow from undifferentiated blood cells, which are blood stem cells that haven't yet changed to become a specialized cell type. After forming, monocytes then enter the bloodstream. They travel throughout the body before entering the tissue of the different organs to look for pathogens.Monocytes rest until they're activated. Exposure to pathogens (disease-causing substances) can start the process of a monocyte becoming a macrophage. Once fully activated, a macrophage can release toxic chemicals that kill harmful bacteria or infected cells. Macrophages can digest germs if they have been coated by antibodies by other white blood cells.Typically, monocytes make up 2-8% of your total white blood cell count. Absolute monocyte test results can range slightly, depending on the method used for the test and other factors. According to Allina Health, a nonprofit healthcare system, normal results for absolute monocytes typically fall into these ranges:These ranges can vary slightly by health system. Your report may include a reference range from the lab that performs your test.Males tend to have higher monocyte counts than females. While having higher or lower levels than that range isn't necessarily dangerous, it may indicate an underlying condition that needs to be evaluated. Monocyte levels fall or rise depending on what's going on with the immune system. Checking these levels helps monitor your immunity. Your body may make more monocytes once an infection is detected or if you have an autoimmune disease. If you have an autoimmune disease, cells such as monocytes go after healthy cells in your body by mistake. People with chronic infections tend to have elevated levels of monocytes, too.Conditions that can lead to a spike in abs monocytes include:infection or inflammationburns or injuryautoimmune diseases, such as lupus and rheumatoid arthritisthyroid irregularities or malnutritioncertain medicationsLow levels of monocytes typically develop due to medical conditions that lower your white blood cell count or disease treatments that suppress the immune system. Causes of low absolute monocyte count can include:Low monocyte levels may mean your body is more susceptible to infection.You may also have low absolute monocytes if your white blood cell count is low. Causes of a low white blood cell count can include:infectioncertain medications, including chemotherapymalariaalcoholismlupusAn irregular monocyte count, whether low or high, is not a condition in and of itself. Instead, it is a sign of an underlying cause, whether illness, disease, infection, or taking certain medications.Treatment typically involves treating the underlying condition. A doctor may first recommend a blood differential test to get additional information to help diagnose your condition. A standard complete blood count (CBC) will include a monocyte count. A CBC is fairly common if you have an annual physical that includes regular blood work. In addition to checking your white blood cell count (including monocytes), a CBC checks for:red blood cells, which carry oxygen to your organs and other tissueplatelets, which help clot the blood and prevent bleeding complicationshemoglobin, the protein that carries oxygen in your red blood cellshematocrit, a ratio of red blood cells to plasma in your bloodA doctor may also order a blood differential test if they believe you may have abnormal blood cell levels. If your CBC shows specific markers are lower or higher than the normal range, this test can help confirm the results or show that the levels reported in the initial CBC were only temporarily out of the normal range.A blood differential test may also be ordered if you have:an infectionautoimmune diseasebone marrow disordersigns of inflammationA standard CBC and blood differential test involve drawing a small amount of blood from a vein in your arm. A lab measures the various components of your blood and reports the results to you and your doctor.In addition to monocytes, your blood contains other types of white blood cells, all of which help fight off infections and protect you from disease. The types fall into two main groups: granulocytes and mononuclear cells.These granulocytes make up the majority of white blood cells in the body — up to 70% of them. Neutrophils fight infection and are the first white blood cells to respond to inflammation anywhere in the body.These are also granulocytes and represent less than 3% of your white blood cells. But that percentage can increase if you're fighting off an allergy or when a parasite is detected.These are the fewest in number among the granulocytes but are especially helpful in fighting allergies and asthma.Along with monocytes, lymphocytes are in the mononuclear cell group, meaning their nucleus is in one piece. Lymphocytes are the primary cells in the lymph nodes.The following includes commonly asked questions about absolute monocytes.A low absolute monocyte count typically results from medications that injure the bone marrow, like some cancer treatments, or a condition that weakens your immune system, such as AIDS.Having a high level of monocytes can be associated with leukemia. But a high level can also occur with a bacterial infection or chronic inflammatory disease, like IBS.An increased level of monocytes can be associated with heart failure. However, it can also occur with infections and other health conditions that cause inflammation.Monocytes typically make up 2-8% of your total white blood cell count. Percentages outside of that range may have various causes from infection to a weakened immune system.Absolute monocytes are a measurement of a particular type of white blood cell. Monocytes help fight infections and diseases, such as cancer. Getting your absolute monocyte levels checked as part of a routine blood test is one way to monitor the health of your immune system and blood. If you haven't had a complete blood count done lately, ask a doctor if it's time to get one. Atypical amounts of these white blood cells are mainly caused by infection or a condition that affects your immune system. Treating the underlying condition can help raise or lower your monocyte levels.Monocytes are a type of white blood cell that comes from bone marrow. Monocytes, along with other kinds of white blood cells, help the body fight disease and infection. They can become either macrophage cells or dendritic cells, two types of white blood cells. When they become dendritic cells, they launch the inflammatory and anti-inflammatory processes that are part of your body's immune response to infection. Macrophage cells can destroy microorganisms and foreign material, eliminate dead cells, and boost the body's immune response.A blood cell count measures the number of white blood cells in your blood. When you get a comprehensive blood test that includes a complete blood count, you may notice a measurement for monocytes. It's often listed as "monocytes (absolute)" because it's presented as an absolute number. 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Instead, it is a sign of an underlying cause, whether illness, disease, infection, or taking certain medications.Treatment typically involves treating the underlying condition. A doctor may first recommend a blood differential test to get additional information to help diagnose your condition. A standard complete blood count (CBC) will include a monocyte count. A CBC is fairly common if you have an annual physical that includes regular blood work. In addition to checking your white blood cell count (including monocytes), a CBC checks for:red blood cells, which carry oxygen to your organs and other tissueplatelets, which help clot the blood and prevent bleeding complicationshemoglobin, the protein that carries oxygen in your red blood cellshematocrit, a ratio of red blood cells to plasma in your bloodA doctor may also order a blood differential test if they believe you may have abnormal blood cell levels. If your CBC shows specific markers are lower or higher than the normal range, this test can help confirm the results or show that the levels reported in the initial CBC were only temporarily out of the normal range.A blood differential test may also be ordered if you have:an infectionautoimmune diseasebone marrow disordersigns of inflammationA standard CBC and blood differential test involve drawing a small amount of blood from a vein in your arm. A lab measures the various components of your blood and reports the results to you and your doctor.In addition to monocytes, your blood contains other types of white blood cells, all of which help fight off infections and protect you from disease. The types fall into two main groups: granulocytes and mononuclear cells.These granulocytes make up the majority of white blood cells in the body — up to 70% of them. Neutrophils fight infection and are the first white blood cells to respond to inflammation anywhere in the body.These are also granulocytes and represent less than 3% of your white blood cells. But that percentage can increase if you're fighting off an allergy or when a parasite is detected.These are the fewest in number among the granulocytes but are especially helpful in fighting allergies and asthma.Along with monocytes, lymphocytes are in the mononuclear cell group, meaning their nucleus is in one piece. Lymphocytes are the primary cells in the lymph nodes.The following includes commonly asked questions about absolute monocytes.A low absolute monocyte count typically results from medications that injure the bone marrow, like some cancer treatments, or a condition that weakens your immune system, such as AIDS.Having a high level of monocytes can be associated with leukemia. But a high level can also occur with a bacterial infection or chronic inflammatory disease, like IBS.An increased level of monocytes can be associated with heart failure. However, it can also occur with infections and other health conditions that cause inflammation.Monocytes typically make up 2-8% of your total white blood cell count. Percentages outside of that range may have various causes from infection to a weakened immune system.Absolute monocytes are a measurement of a particular type of white blood cell. Monocytes help fight infections and diseases, such as cancer. Getting your absolute monocyte levels checked as part of a routine blood test is one way to monitor the health of your immune system and blood. If you haven't had a complete blood count done lately, ask a doctor if it's time to get one. [Online Marketing/Unsplash] Monocytes perform important functions in your body. These cells are a part of your immune system, and they help destroy the organisms that might make you sick. They also help to heal damaged or infected cells. A high count could be a sign that you're fighting off infection or suffering from illness or inflammation. Want to learn more? We've gathered some of the most important facts you need to know about monocytes, including what a high monocyte count could mean. What Are Monocytes? Monocytes are one of five types of white blood cells, which are the cells that help you fight off infections. They originate in your bone marrow and circulate throughout the bloodstream, attacking viruses, bacteria and germs to help keep you healthy. Monocytes not only get rid of invaders, they also help your body heal and repair itself. According to VeryWellHealth, they account for up to 10 percent of the white blood cells circulating in a healthy person. What Do Monocytes Do? Monocytes typically transform into dendritic cells or macrophages. Dendritic cells in human tissues work together with T lymphocytes, the white blood cells that let your body's immune system respond differently to different types of bacteria, viruses or other organisms that cause disease. Macrophages can quickly move to areas of inflammation to fight infection, sweep away debris and infected cells, and get rid of bacteria and viruses. Types of Monocytes Until recently, monocytes were thought of as macrophage or dendritic. Scientists have discovered that monocytes break down into three subsets: classical, non-classical and intermediate. Classical monocytes make up around 90 percent of all the monocytes in your body, while intermediate and non-classical make up the other 10 percent. Researchers are unsure of whether the different types of monocytes function differently within the immune system and how their roles vary in health and disease, according to Frontiers in Immunology. Why Doctors Monitor Monocytes Doctors order blood tests known as complete blood counts, which evaluate different components of your blood. This includes white blood cells. The Mayo Clinic notes that this blood test could be done for any number of reasons, including: Monitoring your overall health Screening you for disorders like anemia (low red blood cell count) or leukemia (a type of cancer that occurs in blood-forming cells) Diagnosing medical conditions causing symptoms like inflammation, fatigue or fever Monitoring medical conditions that affect your blood cell counts Monitoring medical treatments that may impact blood cells Normal Monocyte Values If you get blood test results, most labs provide a normal range so you can see how your results match up. Medical News Today describes the normal range of monocytes as anywhere from 2 to 8 percent. Normal levels can vary depending on age and gender, which is why it's important to speak with your doctor to figure out what the values mean for you. What Does a High Monocyte Count Indicate? So, what does it mean if your monocyte count is high? The condition, which is called monocytosis, indicates that your body is likely fighting something off, according to Healthline. Potential causes include chronic infections like tuberculosis and chronic inflammatory diseases like rheumatoid arthritis, for example. Other causes include: Viral infections like mumps or measles Parasitic infections Blood disorders Autoimmune disorders Certain cancers, such as monocytic leukemia Research suggests that high monocyte counts could give doctors a view into your heart health. Additionally, in some cases, the balance of monocytes with other white blood cells may provide some information. For example, high monocyte counts paired with low lymphocyte counts appear to be a good indicator of ulcerative colitis, according to a 2015 study. MORE FROM REFERENCE.COM Monocytes are a type of white blood cell, and their function is to fight infections, germs, and inflammation, and to keep your immune system healthy. Doctors check blood test results for low or high monocyte levels to help diagnose various health conditions. For example, high monocyte count can mean that your body is fighting infections or that you have an inflammatory condition. Low monocyte count can mean that you have a vitamin deficiency, anemia, or are under a lot of stress.The normal range of monocytes is usually between 2%-10% of your total white blood cell count. Having a high or low monocyte count doesn't usually cause symptoms itself. However, you may notice symptoms of the condition that is affecting your absolute monocyte count. For example, if monocytes are high because of an infection or inflammation, you might have a fever, sore joints, chronic cough, or chest pains. If monocytes are abnormally low, then you might show signs of fatigue, leg cramps, lightheadedness, or signs of acute stress. In this article, I will look at what it means if monocytes are high or low in blood test results. Knowing the symptoms of abnormal mono levels can help to diagnose the reason for elevated or decreased white blood cell count. What are Monocytes in Blood Test? Complete blood count (CBC) tests check the number of white blood cells, red blood cells, and platelets to evaluate your general health. Doctors from the National Institutes of Health say that monocytes are a type of immune cell that develops in the bone marrow. Monocytes travel through the blood to tissues in the body where they can become macrophages or dendritic cells.1 According to Dr. Mary Territo from the Division of Hematology and Oncology at UCLA, blood testing for monocyte count as part of a CBC is usually done if a person shows signs of infection or an autoimmune disorder.2 However, doctors don't just use the number of absolute monocytes to help diagnose health conditions. They also take into consideration the differential white blood cell count. Professor of Immunology Dr. Choladda Vejabhuti Curry explains that the differential white blood cell count checks the relative percentage of all the types of white blood cells. These are lymphocytes, neutrophils, eosinophils, and basophils.3 Absolute Monocyte Count vs. Relative Monocyte Count The monocyte count in the differential blood test is given as a percentage of the total white blood cell count – this is called relative monocyte count. For example the normal relative monocyte count is 2%-10% of the total white blood cell (WBC) count. The absolute monocyte count is the actual number of monocytes per liter of blood. The absolute monocyte count can be found by multiplying the total WBC count by the percentage of