High Platelet Count Meaning

White blood cell differentials may be performed by an automated analyzer – a machine designed to run laboratory tests – or manually, by examining blood smears under a microscope. The test was performed manually until white blood cell differential analyzers were introduced in the 1970s, making the automated differential possible. In the automated differential, a blood sample is loaded onto an analyzer, which samples a small volume of blood... d7bfcb7e4b

Hematidrosis The term is from Greek haîma/haímatos (αἷμα/αἵματος), meaning blood, and hīdr□s (ἱδρώς), meaning sweat. Investigations such as platelet count, platelet aggregation test, coagulation profile, and skin biopsy reveal no Hematidrosis, also called hematohidrosis, haematidrosis, hemidrosis and blood sweat, is a very rare condition in which a human sweats blood. extreme stress can cause hematidrosis d7bfcb7e4b

Diagnosis is typically confirmed through blood tests. Managing VWD includes the use of desmopressin after minor trauma or before surgery, which allows the body to release more VWF. The disease is named after the Finnish physician Erik Adolf von Willebrand, who first described the condition in 1926. d7bfcb7e4b

White blood cell White blood cells are generally larger than red blood cells. The different white blood cells are usually classified by cell lineage White blood cells

(scientific name leukocytes), also called immune cells or immunocytes, are cells of the immune system that are involved in protecting the body against both infectious disease and foreign entities. from the other blood cells, the anucleated red blood cells (RBCs) and platelets. They include three main subtypes: granulocytes, lymphocytes and monocytes d7bfcb7e4b

Petechia g. , as a side effect of medications or during certain A petechia (; pl. The word is derived from Italian petecchia 'freckle', of obscure origin. : petechiae) is a small red or purple spot (< 3 mm in diameter) that can appear on the skin, conjunctiva, retina, and mucous membranes which is caused by haemorrhage of capillaries. It refers to one of the three descriptive types of hematoma differentiated by size, the other two being ecchymosis (> 1 cm in diameter) and purpura (3 to 10 mm in diameter). The term is typically used in the plural (petechiae), since a single petechia is seldom noticed or significant. Vitamin K deficiency Leukemia Thrombocytopenia – Low platelet counts or diminished platelet function (e d7bfcb7e4b

Platelet Platelets or thrombocytes (from Ancient Greek θρόμβος (thrómbos) 'clot' and κύτος (kútos) 'cell') are a part of blood whose function (along with the coagulation Platelets or thrombocytes (from Ancient Greek θρόμβος (thrómbos) 'clot' and κύτος (kútos) 'cell') are a part of blood whose function (along with the coagulation factors) is to react to bleeding from blood vessel injury by clumping to form a blood clot. birds, amphibians), thrombocytes circulate as intact mononuclear cells. Platelets have no cell nucleus; they are fragments of cytoplasm from

megakaryocytes which reside in bone marrow or lung tissue, and then enter the circulation. g. Platelets are found only in mammals, whereas in other vertebrates (e d7bfcb7e4b

== Causes == d7bfcb7e4b X-linked thrombocytopenia is typically diagnosed in infancy. The disease presents as a bleeding disorder with easy bruising, mucosal bleeding, such as nosebleeds, and mild to severe anemia. Anemia is a condition in which there is an insufficient number of red blood cells to carry adequate levels of oxygen to the body's tissues. X-linked thrombocytopenia is considered to be the milder phenotype of the WAS-related disorders. As age increases... d7bfcb7e4b

Complete blood count diseases. Thrombocytosis, meaning a high platelet count, may occur in states A complete blood count (CBC), also known as a full blood count (FBC) or full haemogram (FHG), is a set of medical laboratory tests that provide information about the cells in a person's blood. The red blood cell indices, which indicate the average size and hemoglobin content of red blood cells, are also reported, and a white blood cell differential, which counts the different types of white blood cells, may be included. If the platelet count is extremely low, a platelet transfusion may be performed. The CBC indicates the counts of white blood cells, red blood cells and platelets, the concentration of hemoglobin, and the hematocrit (the volume percentage of red blood cells) d7bfcb7e4b

X-linked thrombocytopenia WAS-related disorders include Wiskott–Aldrich syndrome, XLT, and X-linked congenital neutropenia (XLN). It is a WAS-related disorder, meaning it is caused by a

mutation in the Wiskott–Aldrich syndrome (WAS) gene, which is located on the short arm of the X chromosome. Between 1 and 10 per million males worldwide are affected with this disorder. platelet counts range from 150,000 to 450,000 platelets per µL of blood. Females may be affected with this disorder but this is very rare since females have two X chromosomes and are therefore typically carriers of the mutation. Of the WAS-related disorders, X-linked thrombocytopenia is considered to be the milder phenotype. Individuals with XLT usually have drastically reduced platelet counts, typically X-linked thrombocytopenia, also referred to as XLT or thrombocytopenia 1, is an inherited clotting disorder that primarily affects males d7bfcb7e4b

== Types == d7bfcb7e4b VWD arises from a deficiency in the quality or quantity of von Willebrand factor (VWF), a protein required for platelet adhesion through the binding to other proteins, particularly factor VIII. The disease is known to affect several breeds of dogs as well as humans. Four types of hereditary VWD have been described, including platelet-type VWD, with VWD type 1 being the most common. Types 1 and 2 are inherited through an autosomal dominant pattern, meaning at least one parent must also have the disease. d7bfcb7e4b The CBC is often carried out as part of a medical assessment and can be used to monitor health or diagnose diseases. The results are interpreted by comparing them to reference ranges, which vary with sex and age. Conditions like anemia and thrombocytopenia are defined by abnormal complete blood count results. The red blood cell indices can provide information about the cause of a person's anemia such as iron deficiency and vitamin B12 deficiency, and the results of the white blood

cell differential can help to diagnose viral, bacterial and parasitic infections and blood disorders like leukaemia... d7bfcb7e4b

Von Willebrand disease Most people with VWD have no symptoms. Types 1 and 2 are inherited through an autosomal dominant pattern, meaning at least Von Willebrand disease (VWD) is a type of blood-clotting disorder. It is the most common hereditary coagulopathy in humans, affecting 1% of the population. Those that do usually have bleeding of varying intensity, including repeated bruising and nosebleeds. including platelet-type VWD, with VWD type 1 being the most common. An acquired form of VWD can sometimes result from other medical conditions d7bfcb7e4b

Petechiae can be caused by a number of infectious or noninfectious conditions, or by physical trauma. The presence of petechiae in certain locations, such as the eyes or neck, are sometimes considered forensically significant, such as in cases of suspected strangulation. d7bfcb7e4b While the extent of blood loss generally is minimal, hematidrosis also results in the skin becoming extremely tender and fragile. d7bfcb7e4b One major function of platelets is to contribute to hemostasis: the process of stopping bleeding at the site where the lining of vessels (endothelium) has been interrupted. Platelets gather at the site and, unless the interruption is physically too large, they plug it. First, platelets attach to substances outside the interrupted endothelium: adhesion. Second, they change shape, turn on receptors and secrete chemical messengers: activation. Third, they connect to each other through receptor bridges: aggregation. Formation of this platelet plug (primary hemostasis) is associated with

activation of the coagulation cascade, with resultant... d7bfcb7e4b Blood usually oozes from the forehead, nails, umbilicus, and other skin surfaces. In addition, oozing from mucocutaneous surfaces causing nosebleeds, blood-stained tears, and vicarious menstruation are common. The episodes may be preceded by intense headache and abdominal pain and are usually self-limiting. In some conditions, the secreted fluid is more dilute and appears to be blood-tinged, while others may have more opaque, bright red secretions resembling blood. d7bfcb7e4b == Symptoms and signs == d7bfcb7e4b == Signs and symptoms... == d7bfcb7e4b

White blood cell differential Analyzers may count nucleated red blood cells, giant and clumped platelets, and red blood cells containing abnormal hemoglobins A white blood cell differential is a medical laboratory test that provides information about the types and amounts of white blood cells in a person's blood. Changes in the amounts of white blood cells can aid in the diagnosis of many health conditions, including viral, bacterial, and parasitic infections and blood disorders such as leukaemia. These results are reported as percentages and absolute values, and compared against reference ranges to determine whether the values are normal, low, or high. reference method for these cells. The test, which is usually ordered as part of a complete blood count (CBC), measures the amounts of the five normal white blood cell types – neutrophils, lymphocytes, monocytes, eosinophils and basophils – as well as abnormal cell types if they are present d7bfcb7e4b

All white blood cells are produced and derived from multipotent cells in the bone marrow known as hematopoietic stem cells. Leukocytes are

found throughout the body, including the blood and lymphatic system. All white blood cells have nuclei, which distinguishes them from the other blood cells, the anucleated red blood cells (RBCs) and platelets. The different white blood cells are usually classified by cell lineage (myeloid cells or lymphoid cells). White blood cells are part of the body's immune system. They help the body fight infection and other diseases. Types of white blood cells are granulocytes (neutrophils, eosinophils, and basophils), and agranulocytes (monocytes, and lymphocytes (T cells and B cells)). Myeloid cells (myelocytes) include neutrophils, eosinophils, mast cells, basophils, and monocytes. Monocytes are further subdivided... d7bfcb7e4b There are 2 main types of thrombocytopenic purpura: immune/idiopathic thrombocytopenic purpura and thrombotic thrombocytopenic purpura. d7bfcb7e4b == Types == d7bfcb7e4b

Lymphocyte Pertussis A lymphocyte is a type of white blood cell (leukocyte) in the immune system of most vertebrates. Lymphocytes make up between 18% and 42% of circulating white blood cells. They are the main type of cell found in lymph, which prompted the name "lymphocyte" (with cyte meaning cell). A high lymphocyte count with a low neutrophil count might be caused by lymphoma. abnormally raised lymphocyte count in an otherwise normal person). Lymphocytes include T cells (for cell-mediated and cytotoxic adaptive immunity), B cells (for humoral, antibody-driven adaptive immunity), and innate lymphoid cells (ILCs; "innate T cell-like" cells involved in mucosal immunity and homeostasis), of which natural killer cells are an important subtype (which functions in cell-mediated, cytotoxic innate immunity) d7bfcb7e4b

Thrombocytopenic purpura A consequence of the severe reduction in platelet count includes purple spots on the skin, or purpura, gum bleeding, easy bruising Thrombocytopenic purpura are purpura associated with a reduction in circulating thrombocytes, or blood platelets. Another subtype is thrombotic thrombocytopenic purpura. may be abbreviated as ITP. When thrombocytopenic purpura is immune mediated, it is termed immune thrombocytopenic purpura, or idiopathic thrombocytic purpura. Thrombocytopenic purpura is split into two categories, immune mediated and non-immune mediated. Most cases of TTP are also immune mediated, though there are a small proportion of cases that are caused by an acquired genetic mutation d7bfcb7e4b

== Signs and symptoms == d7bfcb7e4b