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URL of this page: <https://medlineplus.gov/bloodcounttests.html>

## Blood Count Tests

Also called: CBC, Complete Blood Count, Hematologic Tests

Your blood [<https://medlineplus.gov/blood.html>] contains red blood cells (RBC), white blood cells (WBC), and platelets. Blood count tests measure the number and types of cells in your blood. This helps doctors check on your overall health. The tests can also help to diagnose diseases and conditions such as anemia [<https://medlineplus.gov/anemia.html>], infections, clotting problems, blood cancers, and immune system disorders [<https://medlineplus.gov/immunesystemanddisorders.html>].

Specific types include tests for:

- RBC - the numbers, size, and types of RBC in the blood
- WBC - the numbers and types of WBC in the blood
- Platelets - the numbers and size of the platelets
- Hemoglobin - an iron-rich protein in red blood cells that carries oxygen
- Hematocrit - how much space red blood cells take up in your blood
- Reticulocyte count - how many young red blood cells are in your blood
- Mean corpuscular volume (MCV) - the average size of your red blood cells

The complete blood count (CBC) includes most or all of these. The CBC is one of the most common blood tests.

*NIH: National Heart, Lung, and Blood Institute*

## Start Here

- Complete Blood Count (CBC) [<https://medlineplus.gov/lab-tests/complete-blood-count-cbc/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/conteo-sanguíneo-completo/>]
- Understanding Blood Counts [<https://www.lls.org/treatment/lab-and-imaging-tests/understanding-blood-counts>] (Leukemia & Lymphoma Society)
- What You Need to Know About Blood Testing [<https://medlineplus.gov/lab-tests/what-you-need-to-know-about-blood-testing/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/lo-que-usted-debe-saber-sobre-los-analisis-de-sangre/>]

## Related Issues

- High Red Blood Cell Count [<https://www.mayoclinic.org/symptoms/high-red-blood-cell-count/basics/definition/SYM-20050858?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/symptoms/high-red-blood-cell-count/basics/definition/sym-20050858?p=1>]
- Low White Blood Cell Count [<https://www.mayoclinic.org/symptoms/low-white-blood-cell-count/basics/definition/SYM-20050615?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/symptoms/low-white-blood-cell-count/basics/definition/sym-20050615?p=1>]
- Overview of White Blood Cell Disorders [<https://www.merckmanuals.com/home/blood-disorders/white-blood-cell-disorders/overview-of-white-blood-cell-disorders>] (Merck & Co., Inc.)

Also in Spanish [<https://www.merckmanuals.com/es-us/hogar/trastornos-de-la-sangre/trastornos-de-los-gl%C3%B3bulos-blancos-leucocitos/introducci%C3%B3n-a-los-trastornos-de-los-gl%C3%B3bulos-blancos-leucocitos>]

- Platelet Disorders: MedlinePlus Health Topic [<https://medlineplus.gov/plateletdisorders.html>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/plateletdisorders.html>]

## Specifics

- Blood Differential [<https://medlineplus.gov/lab-tests/blood-differential/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/formula-leucocitaria/>]
- Blood Smear [<https://medlineplus.gov/lab-tests/blood-smear/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/frotis-de-sangre/>]
- Hematocrit Test [<https://medlineplus.gov/lab-tests/hematocrit-test/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/hematocrito/>]
- Hemoglobin Electrophoresis [<https://medlineplus.gov/lab-tests/hemoglobin-electrophoresis/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/electroforesis-de-hemoglobina/>]
- Hemoglobin Test [<https://medlineplus.gov/lab-tests/hemoglobin-test/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/analisis-de-hemoglobina/>]
- MCV (Mean Corpuscular Volume) [<https://medlineplus.gov/lab-tests/mcv-mean-corpuscular-volume/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-sangre-de-vcm/>]
- MPV Blood Test [<https://medlineplus.gov/lab-tests/mpv-blood-test/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-sangre-de-vpm/>]
- Platelet Tests [<https://medlineplus.gov/lab-tests/platelet-tests/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/pruebas-de-plaquetas/>]
- RDW Red Cell Distribution Width [<https://medlineplus.gov/lab-tests/rdw-red-cell-distribution-width/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/amplitud-de-distribucion-eritrocitaria/>]
- Red Blood Cell (RBC) Count [<https://medlineplus.gov/lab-tests/red-blood-cell-rbc-count/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/conteo-de-globulos-rojos/>]
- Red Blood Cell (RBC) Indices [<https://medlineplus.gov/lab-tests/red-blood-cell-rbc-indices/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/indices-de-globulos-rojos/>]
- Reticulocyte Count [<https://medlineplus.gov/lab-tests/reticulocyte-count/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/conteo-de-reticulocitos/>]
- White Blood Count (WBC) [<https://medlineplus.gov/lab-tests/white-blood-count-wbc/>]  (National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/conteo-de-globulos-blancos/>]

## Images

- Complete blood count - series [[https://medlineplus.gov/ency/presentations/100152\\_1.htm](https://medlineplus.gov/ency/presentations/100152_1.htm)] (Medical Encyclopedia)  
Also in Spanish [[https://medlineplus.gov/spanish/ency/esp\\_presentations/100152\\_1.htm](https://medlineplus.gov/spanish/ency/esp_presentations/100152_1.htm)]

## Clinical Trials

- ClinicalTrials.gov: Blood Cells [<https://clinicaltrials.gov/search?cond=%22Blood+Cells%22&aggFilters=status:not%20rec>]  (National Institutes of Health)
- ClinicalTrials.gov: Hematologic Tests [<https://clinicaltrials.gov/search?cond=%22Hematologic+Tests%22&aggFilters=status:not%20rec>]  (National Institutes of Health)

## Journal Articles

## References and abstracts from MEDLINE/PubMed (National Library of Medicine)

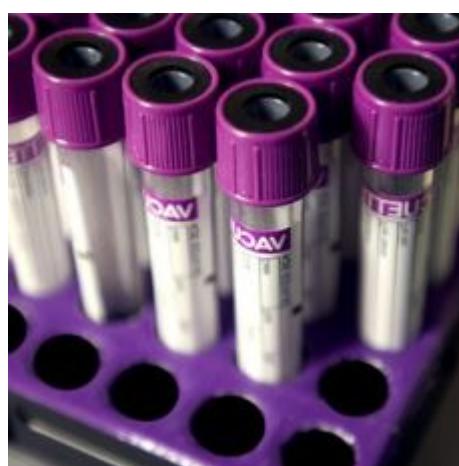
- Article: CD4/CD8 Ratio Increase in Female Living with HIV Switching to Cabotegravir-Rilpivirine:... [<https://www.ncbi.nlm.nih.gov/pubmed/40732681>]
- Article: CD4+/CD8+ lymphocyte ratio as a biomarker of morbidity and severity in... [<https://www.ncbi.nlm.nih.gov/pubmed/40699037>]
- Article: Correlation of Peripheral Blood CD4/CD8 Ratio with Efficacy and Prognosis in... [<https://www.ncbi.nlm.nih.gov/pubmed/40491119>]
- Blood Count Tests -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Blood+Cell+Count%22%5Bmajr%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+2+Years%22+%5Bdat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29>]

## Children

- Complete Blood Count (For Parents) [<https://kidshealth.org/en/parents/labtest4.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/parents/labtest4.html>]

## Patient Handouts

- Blood differential test [<https://medlineplus.gov/ency/article/003657.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003657.htm>]
- Blood smear [<https://medlineplus.gov/ency/article/003665.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003665.htm>]
- CBC blood test [<https://medlineplus.gov/ency/article/003642.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003642.htm>]
- Hematocrit [<https://medlineplus.gov/ency/article/003646.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003646.htm>]
- Hemoglobin [<https://medlineplus.gov/ency/article/003645.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003645.htm>]
- Platelet count [<https://medlineplus.gov/ency/article/003647.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003647.htm>]
- RBC count [<https://medlineplus.gov/ency/article/003644.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003644.htm>]
- RBC indices [<https://medlineplus.gov/ency/article/003648.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003648.htm>]
- WBC count [<https://medlineplus.gov/ency/article/003643.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003643.htm>]



Abnormal hemoglobins testing [<https://medlineplus.gov/ency/article/003371.htm>]

Blood differential test [<https://medlineplus.gov/ency/article/003657.htm>]

Blood smear [<https://medlineplus.gov/ency/article/003665.htm>]

CBC blood test [<https://medlineplus.gov/ency/article/003642.htm>]

Complete blood count - series [[https://medlineplus.gov/ency/presentations/100152\\_1.htm](https://medlineplus.gov/ency/presentations/100152_1.htm)]

Hematocrit [<https://medlineplus.gov/ency/article/003646.htm>]

Hemoglobin [<https://medlineplus.gov/ency/article/003645.htm>]

Hemoglobin electrophoresis [<https://medlineplus.gov/ency/article/003639.htm>]

Low white blood cell count and cancer [<https://medlineplus.gov/ency/patientinstructions/000675.htm>]

Platelet count [<https://medlineplus.gov/ency/article/003647.htm>]

RBC count [<https://medlineplus.gov/ency/article/003644.htm>]

RBC indices [<https://medlineplus.gov/ency/article/003648.htm>]

Reticulocyte count [<https://medlineplus.gov/ency/article/003637.htm>]

Serum free hemoglobin test [<https://medlineplus.gov/ency/article/003677.htm>]

WBC count [<https://medlineplus.gov/ency/article/003643.htm>]

## Related Health Topics

Bleeding Disorders [<https://medlineplus.gov/bleedingdisorders.html>]

Blood [<https://medlineplus.gov/blood.html>]

Laboratory Tests [<https://medlineplus.gov/laboratorytests.html>]

## National Institutes of Health

The primary NIH organization for research on *Blood Count Tests* is the National Heart, Lung, and Blood Institute [<http://www.nhlbi.nih.gov/>]

## Other Languages

Find health information in languages other than English [<https://medlineplus.gov/languages/bloodcounttests.html>] on *Blood Count Tests*

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