

Hematology

| Hematologist | |
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| Occupation | |
| Names | Medical Specialist |
| Type | Specialty |
| Activity sectors | Medicine |
| Description | |
| Education required | Doctor of Medicine Medical residency Fellowship (medicine) |
| Fields of employment | Hospitals, Clinics |
| Average salary | USD \$283,000 (M.D.) |

Hematology, also spelled **haematology** (from the Greek *aἴμα haima* "blood" and *-λογία*), is the branch of internal medicine, physiology, pathology, clinical laboratory work, and pediatrics that is concerned with the study of blood, the blood-forming organs, and blood diseases. Hematology includes the study of etiology, diagnosis, treatment, prognosis, and prevention of blood diseases. The laboratory work that goes into the study of blood is frequently performed by a medical technologist. Hematologists physicians also very frequently do further study in oncology - the medical treatment of cancer.

Blood diseases affect the production of blood and its components, such as blood cells, hemoglobin, blood proteins, the mechanism of coagulation, etc.

Physicians specialized in hematology are known as *hematologists*. Their routine work mainly includes the care and treatment of patients with hematological diseases, although some may also work at the hematology laboratory viewing blood films and bone marrow slides under the microscope, interpreting various hematological test results. In some institutions, hematologists also manage the hematology laboratory. Physicians who work in hematology laboratories, and most commonly manage them, are pathologists specialized in the diagnosis of hematological diseases, referred to as **hematopathologists**. Hematologists and hematopathologists generally work in conjunction to formulate a diagnosis and deliver the most appropriate therapy if needed. Hematology is a distinct subspecialty of internal medicine, separate from but overlapping with the subspecialty of medical oncology. Hematologists may specialize further or have special interests, for example in:

- treating bleeding disorders such as hemophilia and idiopathic thrombocytopenic purpura
- treating hematological malignancies such as lymphoma and leukemia
- treating hemoglobinopathies
- in the science of blood transfusion and the work of a blood bank
- in bone marrow and stem cell transplantation

only some blood disorders can be cured.

Hematology as basic medical science

- Blood
 - Venous blood
 - Venipuncture
 - Hematopoiesis
 - Blood tests
 - Cord blood
- Red blood cells
 - Erythropoiesis
 - Erythropoietin
 - Iron metabolism
 - Hemoglobin
 - Glycolysis
 - Pentose phosphate pathway
- Reticuloendothelial system
 - Bone marrow
 - Spleen
 - Liver
- Lymphatic system
- Blood transfusion
 - Blood plasma
 - Blood bank
 - Blood donors
 - Blood groups
- Hemostasis
 - Coagulation
 - Vitamin K
- Complement system
 - Immunoglobulins

abnormality of the hemoglobin molecule or of the rate of hemoglobin synthesis)

- **Anemias** (lack of red blood cells or hemoglobin)
- **Hematological malignancies**
- **Coagulopathies** (disorders of bleeding and coagulation)
- ...Sickle Cell Anemia

Treatments

Treatments include:

- Diet advice
- Oral medication - tablets or liquid medicines
- Anticoagulation therapy
- Intramuscular injections (for example, Vitamin B12 injections)
- Blood transfusion (for anemia)
- Venesection also known as therapeutic phlebotomy (for iron overload or polycythemia)
- Bone marrow transplant (for example, for leukemia)
- All kinds of anti-cancer chemotherapy
- Radiotherapy (for example, for cancer)

Alphabetical lists

- Hematologists
- Blood disorders
- Hematology topics

Further Readings

- BAIN BARBARA JANE *Haematology: A Core Curriculum* (2010), ISBN 978-1-84816-499-4(pbk)

External links

- American Society of Hematology ^[1]
- Asia-Pacific Journal of Cancer Therapeutics APJCT ^[2]
- Major milestones in history of hematology ^[3] (PDF)
- Multilingual index ^[4]
- American Journal of Hematology / Oncology ^[5]
- ihaematology.com ^[6]
- Oncologist hematologist ^[7]
- Haematology: A Core Curriculum ^[8]

References

- [1] <http://www.hematology.org/>
- [2] <http://www.apmedicaljournals.com/>
- [3] http://www.apon.org/files/public/timeline_chart.pdf
- [4] <http://en.wiktionary.org/wiki/Index:Hematology>
- [5] [http://www.ajho.com:](http://www.ajho.com)
- [6] <http://www.ihematology.com/>
- [7] <http://theoncologist.info/oncologist-hematologist/>
- [8] <http://www.worldscibooks.com/medsci/p688.html>

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