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Vascular Diseases

What are vascular diseases?

Your vascular system is your body's network of blood vessels. It includes your:

- Arteries, which carry oxygen-rich blood from your heart to your tissues and organs
- Veins, which carry the blood and waste products back to your heart
- Capillaries, which are tiny blood vessels that connect your small arteries to your small veins. The walls of the capillaries are thin and leaky, to allow for an exchange of materials between your tissues and blood.

Vascular diseases are conditions which affect your vascular system. They are common and can be serious. Some types include:

- Aneurysm [<https://medlineplus.gov/aneurysms.html>] - a bulge or "ballooning" in the wall of an artery
- Atherosclerosis [<https://medlineplus.gov/atherosclerosis.html>] - a disease in which plaque builds up inside your arteries. Plaque is made up of fat, cholesterol, calcium, and other substances found in the blood.
- Blood clots [<https://medlineplus.gov/bloodclots.html>] , including deep vein thrombosis [<https://medlineplus.gov/deepveinthrombosis.html>] and pulmonary embolism [<https://medlineplus.gov/pulmonaryembolism.html>]
- Coronary artery disease [<https://medlineplus.gov/coronaryarterydisease.html>] and carotid artery disease [<https://medlineplus.gov/carotidarterydisease.html>] , diseases that involve the narrowing or blockage of an artery. The cause is usually a buildup of plaque.
- Raynaud phenomenon [<https://medlineplus.gov/raynaudphenomenon.html>] - a disorder that causes the blood vessels to narrow when you are cold or feeling stressed
- Stroke [<https://medlineplus.gov/stroke.html>] - a serious condition that happens when blood flow to your brain stops.
- Varicose veins [<https://medlineplus.gov/varicoseveins.html>] - swollen, twisted veins that you can see just under the skin
- Vasculitis [<https://medlineplus.gov/vasculitis.html>] - inflammation of the blood vessels

What causes vascular diseases?

The causes of vascular diseases depend on the specific disease. These causes include:

- Genetics
- Heart diseases such as high cholesterol [<https://medlineplus.gov/cholesterol.html>] and high blood pressure [<https://medlineplus.gov/highbloodpressure.html>]
- Infection
- Injury
- Medicines, including hormones

Sometimes the cause is unknown.

Who is at risk for vascular diseases?

The risk factors for vascular diseases can vary, depending on the specific disease. But some of the more common risk factors include:

- Age - your risk of some diseases goes up as you get older
- Conditions that can affect the heart and blood vessels, such as **diabetes** [<https://medlineplus.gov/diabetes.html>] or high cholesterol
- Family history of vascular or heart diseases
- Infection or injury that damages your veins
- Lack of exercise
- **Obesity** [<https://medlineplus.gov/obesity.html>]
- Pregnancy
- Sitting or standing still for long periods of time
- Smoking

What are the symptoms of vascular diseases?

The symptoms for each disease are different.

How are vascular diseases diagnosed?

To make a diagnosis, your health care provider will do a physical exam and ask about your symptoms and medical history. You may have imaging tests [<https://medlineplus.gov/diagnosticimaging.html>] and/or blood tests.

How are vascular diseases treated?

Which treatment you get depends on which vascular disease you have and how severe it is. Types of treatments for vascular diseases include:


- Lifestyle changes, such as eating a heart-healthy diet and getting more exercise
- Medicines, such as blood pressure medicines [<https://medlineplus.gov/bloodpressuremedicines.html>] , blood thinners [<https://medlineplus.gov/bloodthinners.html>] , cholesterol medicines [<https://medlineplus.gov/cholesterolmedicines.html>] , and clot-dissolving drugs. In some cases, providers use a catheter to send medicine directly to a blood vessel.
- Non-surgical procedures, such as angioplasty [<https://medlineplus.gov/angioplasty.html>] , stenting, and vein ablation
- Surgery

Can vascular diseases be prevented?

There are steps you can take to help prevent vascular diseases:

- Make healthy lifestyle changes, such as eating a heart-healthy diet and getting more exercise
- Don't smoke. If you are already a smoker, talk to your health care provider for help in finding the best way for you to quit [<https://medlineplus.gov/quittingsmoking.html>] .
- Keep your blood pressure and cholesterol in check
- If you have diabetes, control your blood sugar [<https://medlineplus.gov/bloodglucose.html>]
- Try not to sit or stand for up long periods of time. If you do need to sit all day, get up and move around every hour or so. If you are traveling on a long trip, you can also wear compression stockings and regularly stretch your legs.

Start Here

- **Peripheral Vascular Disease** [<https://www.texasheart.org/heart-health/heart-information-center/topics/peripheral-vascular-disease/>] (Texas Heart Institute)
Also in Spanish [<https://www.texasheart.org/heart-health/heart-information-center/topics/enfermedad-vascular-periferica/>]
- **What Is Vascular Disease?** [<https://www.vascularcures.org/patients/what-is-vascular-disease/>]  (Vascular Cures)

Diagnosis and Tests

- Catheter Angiography [<https://www.radiologyinfo.org/en/info/angiocath>]
 (American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/angiocath>]
- CT Angiography (CTA) [<https://www.radiologyinfo.org/en/info/angiact>]
 (American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/angiact>]
- Heart Health Tests: MedlinePlus Health Topic [<https://medlineplus.gov/hearthealthtests.html>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/hearthealthtests.html>]
- MR Angiography (MRA) [<https://www.radiologyinfo.org/en/info/angiomr>]
 (American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/angiomr>]
- Ultrasound -- Vascular [<https://www.radiologyinfo.org/en/info/vascularus>]
(American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/vascularus>]
- Venography [<https://www.radiologyinfo.org/en/info/venography>]
(American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/Venography>]


Treatments and Therapies

- Angioplasty and Vascular Stenting [<https://www.radiologyinfo.org/en/info/angioplasty>]
 (American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/angioplasty>]
- Catheter Embolization [<https://www.radiologyinfo.org/en/info/cathembol>]
(American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/cathembol>]
- Catheter-Directed Thrombolysis [<https://www.radiologyinfo.org/en/info/thrombo>]
(American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/thrombo>]

Specifics


- Cerebral Cavernous Malformations [<https://www.ninds.nih.gov/health-information/disorders/cerebral-cavernous-malformations>]  (National Institute of Neurological Disorders and Stroke)
- Chronic Venous Insufficiency [<https://www.vascularcures.org/chronic-venous-insufficiency-cvi>] (Vascular Cures)
- Fibromuscular Dysplasia (FMD) [<https://www.ninds.nih.gov/health-information/disorders/glossary-neurological-terms#-F->]
 (National Institute of Neurological Disorders and Stroke)
- Hemangiomas and Vascular Malformations [<https://orthoinfo.aaos.org/en/diseases--conditions/hemangioma>]
(American Academy of Orthopaedic Surgeons)
- Intestinal Ischemia [<https://www.mayoclinic.org/diseases-conditions/intestinal-ischemia/symptoms-causes/syc-20373946?p=1>] (Mayo Foundation for Medical Education and Research)
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/intestinal-ischemia/symptoms-causes/syc-20373946?p=1>]
- Ischemic Colitis [<https://www.mayoclinic.org/diseases-conditions/ischemic-colitis/symptoms-causes/syc-20374001?p=1>]
(Mayo Foundation for Medical Education and Research)
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/ischemic-colitis/symptoms-causes/syc-20374001?p=1>]
- Livedoid Vasculopathy [<https://rarediseases.info.nih.gov/diseases/12784/livedoid-vasculopathy/>]
 (Genetic and Rare Diseases Information Center)
- Liver Hemangioma [<https://www.mayoclinic.org/diseases-conditions/liver-hemangioma/symptoms-causes/syc-20354234?p=1>] (Mayo Foundation for Medical Education and Research)

Moyamoya Disease [<https://www.ninds.nih.gov/health-information/disorders/moyamoya-disease>]

 (National Institute of Neurological Disorders and Stroke)

- Sturge-Weber Syndrome [<https://www.ninds.nih.gov/health-information/disorders/sturge-weber-syndrome>]

 (National Institute of Neurological Disorders and Stroke)

- Superior Mesenteric Artery Syndrome [<https://rarediseases.info.nih.gov/diseases/7712/superior-mesenteric-artery-syndrome/>]  (Genetic and Rare Diseases Information Center)

Also in Spanish [<https://rarediseases.info.nih.gov/espanol/12871/sindrome-de-la-arteria-mesenterica-superior/>]


- When Blood Vessels Grow Awry: Understanding Vascular Malformations [<https://newsinhealth.nih.gov/2024/07/when-blood-vessels-grow-awry>]  (National Institutes of Health)

Also in Spanish [<https://salud.nih.gov/recursos-de-salud/nih-noticias-de-salud/cuando-los-vasos-sanguineos-se-deforman>]

Genetics

- Capillary malformation-arteriovenous malformation syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/capillary-malformation-arteriovenous-malformation-syndrome>]

 (National Library of Medicine)


- Generalized arterial calcification of infancy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/generalized-arterial-calcification-of-infancy>]  (National Library of Medicine)


- Grange syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/grange-syndrome>]

 (National Library of Medicine)

- Hereditary angioedema: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/hereditary-angioedema>]

 (National Library of Medicine)

- Hereditary angiopathy with nephropathy, aneurysms, and muscle cramps syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/hereditary-angiopathy-with-nephropathy-aneurysms-and-muscle-cramps-syndrome>]  (National Library of Medicine)

- Klippel-Trenaunay syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/klippel-trenaunay-syndrome>]  (National Library of Medicine)

- Multiple cutaneous and mucosal venous malformations: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/multiple-cutaneous-and-mucosal-venous-malformations>]

 (National Library of Medicine)

- Parkes Weber syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/parkes-weber-syndrome>]

 (National Library of Medicine)

- Pseudoxanthoma elasticum: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/pseudoxanthoma-elasticum>]

 (National Library of Medicine)

- Tangier disease: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/tangier-disease>]

 (National Library of Medicine)

Images

- Spider Angioma [<https://skinsight.com/skin-conditions/spider-angioma/?lmiw9cApl=1>] (VisualDX)
- Stasis Ulcer (Venous Ulcer) [<https://skinsight.com/skin-conditions/stasis-ulcer-venous-ulcer/?lmiw9cApl=1>] (VisualDX)
- Strawberry Hemangioma (Infantile Hemangioma) [<https://skinsight.com/skin-conditions/infantile-hemangioma/?lmiw9cApl=1>] (VisualDX)

Videos and Tutorials



- Blood flow [<https://medlineplus.gov/ency/anatomyvideos/000012.htm>]  (Medical Encyclopedia)

Also in Spanish [<https://medlineplus.gov/spanish/ency/anatomyvideos/000012.htm>]

- Cardiovascular system [<https://medlineplus.gov/ency/anatomyvideos/000023.htm>]  (Medical Encyclopedia)

Also in Spanish [<https://medlineplus.gov/spanish/ency/anatomyvideos/000023.htm>]

Clinical Trials

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

Journal Articles


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

- Article: Post-translational modification of transcription factors: perspectives in vascular medicine. [<https://www.ncbi.nlm.nih.gov/pubmed/40651947>]
- Article: Regulation of partial endothelial-to-mesenchymal transition by circATXN1 in ischemic diseases. [<https://www.ncbi.nlm.nih.gov/pubmed/40640166>]
- Article: The usefulness of transvaginal ultrasonography in the diagnosis of pelvic venous... [<https://www.ncbi.nlm.nih.gov/pubmed/40634644>]
- Vascular Diseases -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Vascular+Diseases%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bedat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29+AND+free+full+text%5Bsb%5D+>]

Reference Desk

- Glossary (Vascular Diseases) [<https://www.vascularcures.org/patients/glossary/>] (Vascular Cures)

Find an Expert

- American Heart Association [<https://www.heart.org/en/>]
- National Heart, Lung, and Blood Institute [<https://www.nhlbi.nih.gov/>] 

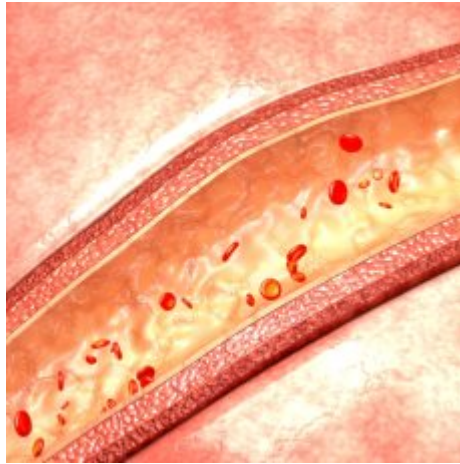
Children

- Embolization (For Parents) [<https://kidshealth.org/en/parents/embolization.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/embolization.html>]
- Sclerotherapy (For Parents) [<https://kidshealth.org/en/parents/sclerotherapy.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/sclerotherapy.html>]
- Sturge-Weber Syndrome [<https://kidshealth.org/en/parents/sturge-weber-syndrome.html>] (Nemours Foundation)
- Venous Malformations (For Parents) [<https://kidshealth.org/en/parents/venous-malformations.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/venous-malformations.html>]
- What Is Hemangioma? [<https://www.aao.org/eye-health/diseases/hemangioma>] (American Academy of Ophthalmology)
Also in Spanish [<https://www.aao.org/salud-ocular/enfermedades/que-es-un-hemangioma>]

Patient Handouts

- Aortic arch syndrome [<https://medlineplus.gov/ency/article/001123.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/001123.htm>]
- Arterial embolism [<https://medlineplus.gov/ency/article/001102.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/001102.htm>]
- Arteriogram [<https://medlineplus.gov/ency/article/003327.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003327.htm>]
- Cerebral angiography [<https://medlineplus.gov/ency/article/003799.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003799.htm>]

- Duplex ultrasound [<https://medlineplus.gov/ency/article/003433.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003433.htm>]
- Venous insufficiency [<https://medlineplus.gov/ency/article/000203.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000203.htm>]
- Venous ulcers -- self-care [<https://medlineplus.gov/ency/patientinstructions/000744.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000744.htm>]



MEDICAL ENCYCLOPEDIA

Aging changes in the heart and blood vessels [<https://medlineplus.gov/ency/article/004006.htm>]

Aortic arch syndrome [<https://medlineplus.gov/ency/article/001123.htm>]

Arterial embolism [<https://medlineplus.gov/ency/article/001102.htm>]

Arterial insufficiency [<https://medlineplus.gov/ency/article/000725.htm>]

Arteriogram [<https://medlineplus.gov/ency/article/003327.htm>]

Blood flow [<https://medlineplus.gov/ency/anatomyvideos/000012.htm>]

C1 esterase inhibitor [<https://medlineplus.gov/ency/article/003353.htm>]

Cardiovascular system [<https://medlineplus.gov/ency/anatomyvideos/000023.htm>]

Cerebral angiography [<https://medlineplus.gov/ency/article/003799.htm>]

Distal splenorenal shunt [<https://medlineplus.gov/ency/article/007647.htm>]

Duplex ultrasound [<https://medlineplus.gov/ency/article/003433.htm>]

Heart and vascular services [<https://medlineplus.gov/ency/article/007459.htm>]

Hemangioma [<https://medlineplus.gov/ency/article/001459.htm>]

Hemangioma excision - series [https://medlineplus.gov/ency/presentations/100114_1.htm]

Hepatic hemangioma [<https://medlineplus.gov/ency/article/000243.htm>]

Hereditary angioedema [<https://medlineplus.gov/ency/article/001456.htm>]

Hyperbaric oxygen therapy [<https://medlineplus.gov/ency/article/002375.htm>]

Livedo reticularis [<https://medlineplus.gov/ency/article/001478.htm>]

Magnetic resonance angiography [<https://medlineplus.gov/ency/article/007269.htm>]

Mesenteric angiography [<https://medlineplus.gov/ency/article/003819.htm>]

Mesenteric artery ischemia [<https://medlineplus.gov/ency/article/001156.htm>]

Renal venogram [<https://medlineplus.gov/ency/article/003770.htm>]

Renovascular hypertension [<https://medlineplus.gov/ency/article/000204.htm>]

Spider angioma [<https://medlineplus.gov/ency/article/001095.htm>]

Sturge-Weber syndrome [<https://medlineplus.gov/ency/article/001426.htm>]

SVC obstruction [<https://medlineplus.gov/ency/article/001097.htm>]

Venogram [<https://medlineplus.gov/ency/article/007283.htm>]

Venous insufficiency [<https://medlineplus.gov/ency/article/000203.htm>]

Venous ulcers -- self-care [<https://medlineplus.gov/ency/patientinstructions/000744.htm>]

Volkman contracture [<https://medlineplus.gov/ency/article/001221.htm>]

Related Health Topics

Aneurysms [<https://medlineplus.gov/aneurysms.html>]

Arteriovenous Malformations [<https://medlineplus.gov/arteriovenousmalformations.html>]

Atherosclerosis [<https://medlineplus.gov/atherosclerosis.html>]

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

Carotid Artery Disease [<https://medlineplus.gov/carotidarterydisease.html>]

Coronary Artery Disease [<https://medlineplus.gov/coronaryarterydisease.html>]

Deep Vein Thrombosis [<https://medlineplus.gov/deepveinthrombosis.html>]

Heart Attack [<https://medlineplus.gov/heartattack.html>]

Heart Health Tests [<https://medlineplus.gov/hearthealthtests.html>]

Peripheral Arterial Disease [<https://medlineplus.gov/peripheralarterialdisease.html>]

Pulmonary Embolism [<https://medlineplus.gov/pulmonaryembolism.html>]

Raynaud Phenomenon [<https://medlineplus.gov/raynaudphenomenon.html>]

Stroke [<https://medlineplus.gov/stroke.html>]

Varicose Veins [<https://medlineplus.gov/varicoseveins.html>]

Vasculitis [<https://medlineplus.gov/vasculitis.html>]

National Institutes of Health

The primary NIH organization for research on *Vascular Diseases* 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/vascular diseases.html>] on *Vascular Diseases*

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