

Atherosclerosis vs arteriosclerosis are often used interchangeably, but they are not the same. While the diagnosis for both these conditions is more or less similar, the causes, symptoms, risk factors, and treatment may differ. The following is the difference between atherosclerosis are often used interchangeably, but they are not the same. Arteriosclerosis Meaning The buildup of plaque in artery walls, restricting blood flow to organs and tissues Scope A type of arteriosclerosis A broader term for a group of conditions Type of deposits Fatty deposits Calcium deposits Occurrence of symptoms Mild atherosclerosis shows no symptoms. Symptoms are usually experienced in moderate to severe atherosclerosis. It causes no symptoms, causes, and Risk Factors of Atherosclerosis vs Arteriosclerosis Identifying atherosclerosis and arteriosclerosis differences can be difficult since both conditions typically show no symptoms in their early stages. However, the causes of these conditions are pretty straightforward and different. The risk factors of atherosclerosis are generally different, but some may overlap. and arteriosclerosis based on their symptoms, causes, and risk factors. Symptoms of atherosclerosis usually do not show during the early stages. Symptoms of atherosclerosis depend on the affected arteries. Possible symptoms include: Chest pain (angina) Dizziness Fatigue Cold sweats Rapid heart rate Shortness of breath Weakness in leg muscles in the face Claudication (pain in legs or arms while walking or using the arm) Cramping in buttocks while walking Arteriosclerosis usually causes no symptoms. Causes Atherosclerosis is caused by damage to endothelial cells (cells that make the inner lining of an artery). When the endothelial cells are damaged, it leads to inflammation, causing plaque development. As a result, the artery walls flexible and elastic). The damage couses breakage of elastin fibres, lowering their structured arrangement. As a result, the artery walls become stiff and hard, leading to arteriosclerosis. Risk Factors The risk of atherosclerosis increases with the following factors: Ageing Gender (men are more prone than women) Family history of atherosclerosis or heart disease Smoking Obesity High intake of saturated fat High blood pressure High blood cholesterol Diabetes The primary risk factor of arteriosclerosis is age. As you age, the elastin fibres lose elasticity, making the arteries hard and stiff. The stiffness and hardness of arteriosclerosis share the same foundation of science; therefore, doctors examine both conditions using the same tools. While the treatment for arteriosclerosis usually includes lifestyle changes and medications, treatment for arteriosclerosis and arteriosclerosis atherosclerosis and arteriosclerosis based on their diagnosis. To diagnose atherosclerosis, the doctor will physically examine the signs of the disease, such as decreased blood pressure, weak pulse, and hardened arteries. Blood tests: Used to check blood sugar and cholesterol levels, as they may increase the risk of atherosclerosis. You may also need a C-reactive protein (CRP) test to check for the protein activity of the heart. The results can help determine reduced blood flow to the heart. Stress test: If you usually experience symptoms during a stationary bike or walking on a treadmill. Echocardiogram: The test uses sound waves to display blood flow through the heart. Doppler ultrasound: The doctor uses a special ultrasound device to measure blood flow at various points in your arms and legs. The results help analyse the speed of blood flow in the arteries are narrowed or blocked. The results help analyse the speed of blood flow in the arteries are narrowed or blocked. Ankle-Brachial Index (ABI): The test compares the blood pressure in the ankle and the arm to check for atherosclerosis in the arteries of the heart and show calcium deposits in the artery walls. Other imaging tests: Tests such as Positron Emission Tomography (PET) and Magnetic Resonance Angiography (MRA) are used to detect the narrowing and hardening of large arteries. Treatment of atherosclerosis. Medications: Different drugs are available to slow or reverse the effect of atherosclerosis. Depending on your health, the doctor may prescribe cholesterol-lowering drugs to slow, stop, or reverse the buildup of fatty deposits in the arteries. The doctor may also prescribe aspirin to prevent blood clots and drugs to slow, stop, or reverse the buildup of fatty deposits in the arteries. the blocked artery. Sometimes, a stent is placed in the artery to keep the artery open. Coronary artery bypass surgery: You may need bypass surgery if you have several narrowed heart arteries. The surgeon will take a healthy blood vessel from another body part and create a new path for the blood to flow through. Endarterectomy: The surgery removes plaque from the walls of the narrowed arteries. Medications for treating arteriosclerosis include: ACE inhibitors and beta-blockers: to open or widen blood vessels Complications If left untreated, atherosclerosis can lead to various complications. The complications of atherosclerosis depend on the arteries that are blocked or narrowed. These complications include: Coronary artery disease. It may cause angina (chest pain), heart attack or heart failure. Peripheral artery disease: Atherosclerosis that narrows arteries in the arms and legs may cause peripheral artery disease: Atherosclerosis that narrows arteries in the arms and legs may cause peripheral artery disease: When arteries close to your brain narrow, you may develop carotid artery disease. It can cause transient ischemic attack (TIA) or stroke. Renal artery stenosis: Atherosclerosis can cause the narrowing of arteries leading to the kidneys, causing symptoms like oedema (swelling), headaches, unexplained weight loss, dry, itchy or numb skin, etc. Aneurysms: Atherosclerosis can also lead to aneurysms (an abnormal bulge in the body. If an aneurysm bursts, it can result in life-threatening bleeding inside the body. "Vascular disease" is a term given to conditions that affect the blood vessels that carry oxygen and nutrients throughout the body. Two conditions within this category are atherosclerosis, which are often confused. Both conditions involve changes in the arterial walls. However, arteriosclerosis is the general thickening and hardening of the arterial walls. arteriosclerosis in which fatty deposits called plaque build up in the walls of the artery. Atherosclerosis both affect the arteries, but their impacts, causes, and health risks vary. Understanding their differences can reveal how vascular disease develops and affects overall health. Health; Getty Images In both atherosclerosis and arteriosclerosis, the arteries, which are the blood vessels that carry oxygen-rich blood from the heart to the rest of the body, change in a way that makes them less effective in doing their job. A healthy arteriosclerosis, the arterial with a teriosclerosis, the arterial with a teriosclerosis, the arterial with a teriosclerosis and a teriosclerosis and a teriosclerosis. walls become thickened and less elastic, which can restrict blood flow and make the heart have to work harder to pump blood through the body. In atherosclerosis, the arterial walls. Plaque buildup within the arterial walls. Plaque is a sticky, fatty substance composed of cholesterol, calcium, and other substances. As plaque builds up, it narrows the arteries and can eventually block blood flow, leading to complications like a heart attack or stroke. Atherosclerosis is typically the cause of coronary artery disease (CAD). While both atherosclerosis is typically the cause of coronary artery disease and arteriosclerosis and arteriosclerosis is typically the cause of coronary artery disease (CAD). atherosclerosis and arteriosclerosis usually develop slowly over time and might not be noticeable until advanced. In the early stages, both conditions may have no noticeable symptoms. However, as arteries become increasingly narrowed or hardened, signs of clogged arteries may present themselves, depending on which part of the body is affected. For instance, if the arteries supplying blood to the heart are affected, heart attack symptoms might be experienced. Symptoms related to the heart may include: Chest pain or angina Cold sweats Dizziness that's sudden Fatigue Nausea Shortness of breath When atherosclerosis affects the arteries leading to the brain, warning signs may involve stroke-like symptoms such as: Difficulty walkingFacial droopingHeadacheLoss of visionSlurred speech Sudden numbness or weakness of the extremities (legs, feet, arms, and hands), symptoms such as coldness or weakness of the extremity may be noticed. Arteriosclerosis may cause symptoms such as high blood pressure or decreased blood circulation to the extremities, leading to leg pain or cramping, often during physical activity. This is a condition known as claudication. In arteriosclerosis, the heart has to work much harder to get blood through the body. Over time, this can lead to enlargement of the heart's left ventricle, which is the heart chamber that pushes blood through to the body. As time goes on, the enlarged heart can begin to fail. Symptoms of heart failure can include: Coughing or wheezingFatigueIncreased heart rateLower extremity swellingShortness of breath Arteriosclerosis and atherosclerosis are caused by a combination of things, including age, lifestyle, and sometimes family history. Arteriosclerosis happens naturally as the body ages. The arteries lose some of their flexibility over time, but this loss of flexibility can also be related to high blood pressure and obesity. Risk factors for atherosclerosis include: Being overweight Chronic stressDiabetesFamily history of heart disease or high cholesterolHigh blood pressurePoor sleepSmoking Healthcare providers can use different tests to check for atherosclerosis, or both. For arteriosclerosis, or both. For arteriosclerosis, a test often performed is the pulse wave velocity, which measures the strength and speed at which blood moves through the arteries. Monitoring blood pressure is important as well. An echocardiogram, which is an ultrasound of the heart, may be done to see if the heart, may be done to see if the heart is enlarged or not pumping well. For atherosclerosis, which involves plaque buildup. Commonly, blood tests such as inflammation markers, triglycerides, and lipoproteins are checked. Imaging tests include cardiac magnetic resonance imaging (MRI) or cardiac computed tomography (CT) to view the arteries, and an ultrasound during the procedure can see the amount of plaque buildup in the arteries. Other tests include stress tests (performed on a treadmill or stationary cycle with monitoring) and an ankle-brachial index (measures blood pressure in the upper arm and ankle). Lifestyle changes are one of the main ways both conditions are managed. This includes eating a heart-healthy diet low in saturated fats, added sugars, salt, and alcohol. Include fruits, vegetables, whole grains, and lean proteins such as legumes (beans and lentils), seeds, fish, and poultry. Regular exercise is also important for keeping the arteries healthy, strengthening the heart and improving circulation. Quitting smoking is another important step, as smoking damages the arteries and can make both conditions worse. In addition to lifestyle changes, medications can help. Medications that lower cholesterol, such as statins, are commonly prescribed to help reduce strain on the blood vessels if you have high blood pressure. Medications to prevent clotting (known as anticoagulants, or blood thinners, can be prescribed to help keep the blood flowing easily in the arteries. In more advanced cases of atherosclerosis, procedures like angioplasty, in which a tiny balloon is used to widen a narrowed artery, or stent placement, a small tube that keeps an artery open, may be done to improve blood flow. While the thickening and hardening of arteries in arteriosclerosis may not fully reverse, lifestyle changes can help slow the progression. Eating a balanced diet rich in fruits, vegetables, whole grains, and healthy fats can help lower blood pressure. These healthy habits make a significant difference over time, helping the heart work more efficiently and reducing strain on the arteries. For atherosclerosis, which involves plaque buildup, some studies suggest that certain changes may even reduce the amount of plaque in the arteries. For atherosclerosis, which involves plaque buildup, some studies suggest that certain changes may even reduce the amount of plaque in the arteries. medications not only lower cholesterol but may also help shrink plaque slightly over time, reducing the risk of serious issues like heart attacks. When paired with medication, a healthy lifestyle, including quitting smoking and managing stress, can support artery health and potentially slow down plaque buildup. While completely reversing artery changes may not be possible, these interventions can help reduce plaque and improve arterial health. Knowing when to call a healthcare provider if you have concerns about atherosclerosis or arteriosclerosis is important. The first step is determining your risk by getting regular checkups. If you have risk factors such as high blood pressure, high cholesterol, diabetes, or a family history of heart disease, regular checkups with a healthcare provider can perform tests to detect early signs of atherosclerosis or arteriosclerosis, helping you take steps to protect your heart and arteries before more serious symptoms. develop. Seek emergency care for symptoms of tightness in the chestShortness of breath Symptoms require emergent evaluation and include: Difficulty speakingNumbness on one side of the bodySudden weaknessTrouble seeing Pain or cramping in your legs, especially during activities like walking or climbing stairs, can be a sign of poor blood flow in the arteries of the legs and should be checked out. Two main types of vascular disease are arteriosclerosis and atherosclerosis, which both affect the arteries but differ in cause. Arteriosclerosis is the thickening and hardening of artery walls, often due to aging. Atherosclerosis, a specific kind of arteries are affected. Lifestyle changes like a healthy diet, exercise, and avoiding smoking help manage both conditions, along with medications to lower cholesterol and blood pressure. Early testing and regular check-ups can also catch these conditions, along with medications to lower cholesterol and blood pressure. This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources: "Kidney failure" - news · newspapers · books · scholar · JSTOR (May 2024) (Learn how and when to remove this message) Medical conditionKidney failureOther namesRenal failure, end-stage renal disease (ESRD), stage 5 chronic kidney disease[1]A hemodialysis machine which is used to replace the function of the kidneysSpecialtyNephrologySymptomsLeg swelling, feeling tired, loss of appetite, confusion[2]ComplicationsAcute: Uremia, high blood potassium, volume overload[3]Chronic: Heart disease, high blood pressure, anemia[4][5]TypesAcute kidney failure, chronic kidney failure[6]CausesAcute: Low blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureblockage of the urinary tractcertain medicationsmuscle breakdownhemolytic uremic syndrome[6]Chronic: Diabeteshigh blood pressureb urine productionincreased serum creatinine[3]Chronic: Glomerular filtration rate (GFR) < 15[1]TreatmentAcute: Depends on the cause[7]Chronic: 1 per 1,000 (US)[1] Kidney failure, also known as renal failure or end-stage renal disease (ESRD), is a medical condition in which the kidneys can no longer adequately filter waste products from the blood, functioning at less than 15% of normal levels.[2] Kidney failure, which develops rapidly and may resolve; and chronic kidney failure, which develops slowly and can often be irreversible.[6] Symptoms may include leg swelling, feeling tired, vomiting, loss of appetite, and confusion.[2] Complications of acute and chronic failure include uremia, hyperkalemia, and volume overload.[3] Complications of chronic failure include low blood pressure, blockage of the urinary tract, certain medications, muscle breakdown, and hemolytic uremic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome, and polycystic kidney disease.[6] Diagnosis of acute failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome, and polycystic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic syndrome.[6] Causes of chronic kidney failure include diabetes, high blood pressure, nephrotic kidney failure include diabetes, high blood pressure [3] Diagnosis of chronic failure is based on a glomerular filtration rate (GFR) of less than 15 or the need for renal replacement therapy.[1] It is also equivalent to stage 5 chronic kidney disease.[1] Treatment of acute failure depends on the underlying cause.[7] Treatment of chronic failure may include hemodialysis, peritoneal dialysis, or a kidney transplant.[2] Hemodialysis uses a machine to filter the blood outside the body.[2] In peritoneal dialysis specific fluid is placed into the abdominal cavity and then drained, with this process being repeated multiple times per day.[2] Kidney transplantation involves surgically placing a kidney from someone else and then taking immunosuppressant medication to prevent rejection.[2] Other recommended measures from chronic disease include staying active and specific dietary changes.[2] Depression is also common among patients with kidney failure, and is associated with poor outcomes including higher risk of kidney function decline, hospitalization, and death. A recent PCORI-funded study of patients with kidney failure receiving outpatient hemodialysis found similar effectiveness between nonpharmacological and pharmacological treatments for depression.[9] In the United States, acute failure affects about 3 per 1,000 people a year.[8] Chronic failure affects about 1 in 1,000 people with 3 per 10,000 people newly developing the condition each year.[1][10] In Canada, the lifetime risk of kidney failure or end-stage renal disease (ESRD) was estimated to be 2.66% for men and 1.76% for men Kidney failure can be divided into two categories: acute kidney failure is differentiated by the trend in the serum creatinine; other factors that may help differentiated by the trend in the serum creatinine; other factors that may help differentiated by the trend in the serum creatinine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiated by the trend in the serum creatine; other factors that may help differentiate acute kidney failure. leads to anemia and small kidney size.[12] Main article: Acute kidney injury (AKI), previously called acute renal failure (ARF),[13][14] is a rapidly progressive loss of renal function,[15] generally characterized by oliguria (decreased urine production, quantified as less than 400 mL per day in adults,[16] less than 0.5 mL/kg/h in children or less than 1 mL/kg/h in infants); and fluid and electrolyte imbalance. AKI can result from a variety of causes, generally classified as prerenal, intrinsic, and postrenal. Many people diagnosed with paraquat intoxication experience AKI, sometimes requiring hemodialysis.[17] The underlying cause must be identified and treated to arrest the progress, and dialysis may be necessary to bridge the time gap required for treating these fundamental causes.[citation needed] Main article: Chronic kidney disease (CKD) can also develop slowly and, initially, show few symptoms.[18] CKD can be the long term consequence of irreversible acute disease or part of a disease progression.[citation needed] CKD is divided into 5 different stages (1-5) according to the estimated glomerular filtration rate (eGFR). In CKD1 eGFR is normal and in CKD5 eGFR has decreased to less than 15 ml/min.[19] Acute kidney injuries can be present on top of chronic kidney disease, a condition called acute-on-chronic kidney failure (AoCRF). The acute part of AoCRF may be reversible, and the goal of treatment, as with AKI, is to return the person to baseline kidney function, typically measured by serum creatinine. Like AKI, AoCRF can be difficult to distinguish from chronic kidney disease if the person has not been monitored by a physician and no baseline (i.e., past) blood work is available for comparison.[citation needed] Symptoms can vary from person to person. Someone in early stage kidney disease may not feel sick or notice symptoms as they occur. When the kidneys fail to filter properly, waste accumulates in the blood and the body, a condition called azotemia. Very low levels of azotemia may produce few, if any, symptoms. If the disease progresses, symptoms become noticeable (if the failure is of sufficient degree to cause symptoms). Kidney failure accompanied by noticeable (if the failure is of sufficient degree to cause symptoms). the blood, which can result in: Vomiting or diarrhea (or both) that may lead to dehydration Nausea Weight loss Nocturnal urination, or in smaller amounts than usual, with dark coloured urine Blood in the urine Pressure, or difficulty Unusual amounts of urination, usually in large quantities A buildup of phosphates in the blood that diseased kidneys cannot filter out may cause: Itching Bone damage Nonunion in broken bones Muscle cramps (caused by low levels of calcium which can be associated with hyperphosphatemia) A buildup of potassium in the blood that diseased kidneys cannot filter out (called hyperkalemia) may cause: Abnormal heart rhythms Muscle paralysis[24] Failure of kidneys to remove excess fluid on the lungs (may also be caused by anemia) Polycystic kidney disease, which causes large, fluid-filled cysts on the kidneys and sometimes the liver, can cause: Pain in the back or side Healthy kidneys produce the hormone erythropoietin, resulting in decreased production of red blood cells to replace the natural breakdown of old red blood cells. As a result, the blood carries less hemoglobin, a condition known as anemia. This can result in: Feeling tired or weak Memory problems Difficulty concentrating Dizziness Low blood pressure Normally proteins are too large to pass through the kidneys. symptoms until extensive kidney damage has occurred, [25] after which symptoms include: Foamy or bubbly urine Swelling in the hands, feet, abdomen, and face Other symptoms include: Appetite loss, which may include a bad taste in the mouth Difficulty sleeping Darkening of the skin Excess protein in the blood With high doses of penicillin, people with kidney failure may experience seizures[26] Main article: Acute kidney injury Acute kidney injury (previously known as acute renal failure) - or AKI - usually occurs when the blood supply to the kidneys is suddenly interrupted or when the kidneys is suddenly interrupted or when the kidneys become overloaded with toxins. Causes of acute kidney injury include accidents, injuries, or complications from surgeries in which the kidneys are deprived of normal blood flow for extended periods of time. Heart-bypass surgery is an example of one such as antibiotics or chemotherapy, along with bee stings[27] may also cause the onset of acute kidney injury. Unlike chronic kidney injury, allowing the person with AKI to resume a normal life. People with acute kidney injury require supportive treatment until their kidneys recover function, and they often remain at increased risk of developing future kidney failure.[28] Among the accidental causes of renal failure is the crush syndrome, when large amounts of toxins are suddenly released in the blood flow through its tissues, causing ischemia. The resulting overload can lead to the clogging and the destruction of the kidneys. It is a reperfusion injury that appears after the release of the crushing pressure. The mechanism is believed to be the release into the bloodstream of muscle breakdown of skeletal muscle damaged by ischemic conditions). The specific action on the kidneys is not fully understood, but may be due in part to nephrotoxic metabolites of myoglobin.[citation needed] Main article: Chronic kidney disease Chronic k disease is another well-known cause of chronic failure. The majority of people affected with polycystic kidney disease have a family history of the disease. Systemic lupus erythematosus (SLE) is also a known cause of chronic kidney failure. ibuprofen, and acetaminophen (paracetamol) can also cause chronic kidney failure.[31] The APOL1 gene has been proposed as a major genetic risk locus for a spectrum of nondiabetic renal failure in individuals of African origin, these include HIVassociated nephropathy (HIVAN), primary nonmonogenic forms of focal segmental glomerulosclerosis, and hypertension affiliated chronic kidney disease in African Americans. [33][34] Two western African variants in APOL1 have been shown to be associated with end stage kidney disease in African Americans. Stages of kidney failure Chronic kidney failure is measured in five stages, which are calculated using the person's GFR, or glomerular filtration rate. Stage 2 and 3 need increasing levels of supportive care from their medical providers to slow and treat their renal dysfunction People with stage 4 and 5 kidney failure usually require preparation towards active treatment in order to survive. Stage 5 CKD is considered a severe illness and requires some form of renal replacement therapy (dialysis) or kidney transplant whenever feasible.[35] Glomerular filtration rate A normal GFR varies according to many factors, including sex, age, body size and ethnic background. Renal professionals consider the glomerular filtration rate (GFR) to be the best overall index of kidney foundation offers an easy to use on-line GFR calculator[37] for anyone who is interested in knowing their glomerular filtration rate. (A serum creatinine level, a simple blood test, is needed to use the calculator.) Those with end stage renal failure who undergo haemodialysis have higher risk of spontaneous intra-abdominal bleeding than the general population (21.2%) and non-occlusive mesenteric ischemia (18.1%). Meanwhile, those undergoing peritoneal dialysis have a higher chance of developing peritonitis and gastrointestinal perforation. However, the rate of acute pancreatitis does not differ from the general population.[38] The treatment of chronic kidney failure may include renal replacement therapy: hemodialysis, or kidney transplant.[2] In non-diabetics and people with type 1 diabetes, a low protein diet is found to have a preventive effect on progression of chronic kidney disease. However, this effect does not apply to people with kidney disease. [40] A high protein diet from either animal or plant sources appears to have negative effects. on kidney function at least in the short term.[41] People who receive earlier referrals to a nephrology specialist, meaning a longer time before they must start dialysis.[42] Other methods of reducing disease progression include minimizing exposure to nephrotoxins such as NSAIDs and intravenous contrast.[43] ^ a b c d e f Cheung AK (2005). Primer on Kidney Diseases. Elsevier Health Sciences. p. 457. ISBN 1416023127. ^ a b c d e f g h i j k "Kidney Failure". National Institute of Diabetes and Digestive and Kidney Diseases. Retrieved 11 November 2017. ^ a b c d Blakeley S (2010). Renal Failure and Replacement Therapies. Springer Science & Business Media. p. 19. ISBN 9781846289378. ^ a b Liao MT, Sung CC, Hung KC, Wu CC, Lo L, Lu KC (2012). "Insulin resistance in patients with chronic kidney disease". Journal of Biomedicine & Biotechnology. 2012: 691369. doi:10.1155/2012/691369. PMC 3420350. PMID 22919275. ^ a b "Kidney Failure". MedlinePlus. Retrieved 11 November 2017. ^ a b c d e f g "What is renal failure?". Johns Hopkins Medicine. Archived from the original on 18 June 2017. ^ a b c Clatworthy M (2010). Nephrology: Clinical Cases Uncovered. John Wiley & Sons. p. 28. ISBN 9781405189903. ^ a b Ferri FF (2017). Ferri's Clinical Advisor 2018 E-Book: 5 Books in 1. Elsevier Health Sciences. p. 37. ISBN 9780323529570. A Mehrotra R, Cukor D, Unruh M, Rue T, Heagerty P, Cohen SD, et al. (March 2019). "Comparative Efficacy of Therapies for Treatment of Depression for Patients Undergoing Maintenance Hemodialysis: A Randomized Clinical Trial". Annals of Internal Medicine. 170 (6): 369-379. doi:10.7326/M18-2229. PMID 30802897. S2CID 67876948. ^ Ferri FF (2017). Ferri's Clinical Advisor 2018 E-Book: 5 Books in 1. Elsevier Health Sciences. p. 294. ISBN 9780323529570. ^ Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James MT, Hemmelgarn BR (September 2012). "Lifetime risk of ESRD". J Am Soc Nephrol. 23 (9): 1569-1578. doi:10.1681/ASN.2012020164. PMC 3431421. PMID 22904351. ^ niddk.nih.gov, [Anemia in Chronic Kidney Disease]( ^ Moore EM, Bellomo R, Nichol AD (November 2012). "The meaning of acute kidney injury and its relevance to intensive care and anaesthesia". Anaesthesia and Intensive Care. 40 (6): 929-48. doi:10.1177/0310057X1204000604. PMID 23194202. ^ Ricci Z, Ronco C (2012). "New insights in acute kidney failure". A.D.A.M. Medical Encyclopedia. U.S. National Library of Medicine. 2012. Archived from the original Library of Medical Encyclopedia. U.S. National Library of Medicine. 2012. Archived from the original Library of Medical Encyclopedia. U.S. National Library of Medicine. 2012. Archived from the original Library of Medical Encyclopedia. U.S. National Library of Medical Encyclopedia. on 17 January 2014. Retrieved 1 January 2013. ^ Klahr S, Miller SB (March 1998). "Acute oliguria". The New England Journal of Medicine. 338 (10): 671-5. doi:10.1056/NEJM199803053381007. PMID 9486997. ^ Predictors of acute kidney injury after paraquat intoxication, [National Library of Medicine - National Institutes of Health] ( ^ "Chronic kidney disease". A.D.A.M. Medical Encyclopedia. Medline Plus, National Institutes of Health. 2011. Retrieved 1 January 2013. ^ "Stages of kidney disease". www.kidneyfund.org. 2021-11-22. Retrieved 2023-03-09. ^ a b Grinsted P (2005-03-02). "Kidney failure (renal failure with uremia, or azotaemia)". Netdoctor. Archived from the original on 2015-03-09. 10-15. Retrieved 2009-05-26. ^ Stein A (2007-07-01). Understanding Treatment Options For Renal Therapy. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Illinois: Baxter International Inc. p. 6. ISBN 978-1-85959-070-6. Archived from the original on 2019-01-30. Retrieved 2010-07-12. ^ The PD Companion. Deerfield, Archived from the original on 2010-06-25. Retrieved 2010-07-12. Amgen Inc. (2009). "10 Symptoms of Kidney Disease". Retrieved 2009-05-26. Hebert LA, Charleston J, Miller E (2009). "Proteinuria". Archived from the original on 2011-05-05. Retrieved 2011-03-24. Katzung BG (2007). Basic and Clinical Pharmacology (10th ed.). New York, NY: McGraw Hill Medical. p. 733. ISBN 978-0-07-145153-6. ^ Silva GB, Vasconcelos VR, Barros J, Fujishima JS, et al. (June 2017). "Acute kidney injury complicating bee stings - a review". Revista do Instituto de Medicina Tropical de Sao Paulo. 59 e25. doi:10.1590/S1678-9946201759025. PMC 5459532. PMID 28591253. ^ National Kidney and Urologic Diseases Information Clearinghouse (2012). "The Kidney and Digestive and Kidney Diseases. Archived from the original on 2 May 2015. Retrieved 1 January 2013. ^ Kes P, Basić-Jukić N, Ljutić D, Brunetta-Gavranić B (October 2011). "[The role of arterial hypertension in development of chronic renal failure]" [The role of arterial hypertension in the development of chronic renal failure]. ^ Perneger TV, Whelton PK, Klag MJ (December 1994). "Risk of kidney failure associated with the use of acetaminophen, aspirin, and nonsteroidal antiinflammatory drugs". The New England Journal of Medicine. 331 (25): 1675-9. doi:10.1056/NEJM199412223312502. PMID 7969358. ^ Appel GB, Mustonen J (2012). "Renal involvement with hantavirus infection (hemorrhagic fever with renal syndrome)". UpToDate. Retrieved 1 January 2013. ^ Bostrom MA, Freedman BI (June 2010). "The spectrum of MYH9-associated nephropathy". Clinical Journal of the American Society of Nephrology. 5 (6): 1107–13. doi:10.2215/CJN.08721209. PMC 4890964. PMID 20299374. ^ Genovese G, Friedman DJ, Ross MD, Lecordier L, Uzureau P, Freedman BI, et al. (August 2010). "Association of trypanolytic ApoL1 variants with kidney disease in African Americans". Science. 329 (5993): 841-5. Bibcode: 2010Sci...329..841G. doi:10.1126/science.1193032. PMC 2980843. PMID 20647424. Tzur S, Rosset S, Shemer R, Yudkovsky G, Selig S, Tarekegn A, et al. (September 2010). "Missense mutations in the APOL1 gene are highly associated with end stage kidney disease risk previously attributed to the MYH9 gene". Human Genetics. 128 (3): 345-50. doi:10.1007/s00439-010-0861-0. PMC 2921485. PMID 20635188. ^ Kidney Transplantation as Primary Therapy for End-Stage Renal Disease: A National Kidney Foundation/Kidney Disease Outcomes Quality Initiative (NKF/KDOQI<sup>III</sup>) Conference]( ^ Fadem, Stephen Z., M.D., FACP, FASN. Calculators for HealthCare Professionals. National Kidney Foundation. 13 Oct 2008 Archived 27 July 2014 at the Wayback Machine ^ "GFR calculators". Kidney.org. Archived from the original on 2014-07-27. Retrieved 2011 09-25. ^ Tonolini M, Ierardi AM, Carrafiello G (December 2015). "Letter to the editor: spontaneous renal haemorrhage in end-stage renal disease". Insights into Imaging. 6 (6): 693-695. doi:10.1007/s13244-015-0439-4. PMC 4656237. PMID 26472545. ^ Rughooputh MS, Zeng R, Yao Y (28 December 2015). "Protein Diet Restriction Slows Chronic Kidney Disease Progression in Non-Diabetic and in Type 1 Diabetic Patients, but Not in Type 2 Diabetic Patients: A Meta-Analysis of Randomized Controlled Trials Using Glomerular Filtration Rate as a Surrogate". PLOS ONE. 10 (12): e0145505R. doi:10.1371/journal.pone.0145505. PMC 4692386. PMID 26710078. Chauveau P, Combe C, Fouque D, Aparicio M (November 2013). "Vegetarianism: advantages and drawbacks in patients with chronic kidney diseases". Journal of Renal Nutrition. 23 (6): 399-405. doi:10.1053/j.jrn.2013.08.004. PMID 24070587. ^ Bernstein AM, Treyzon L, Li Z (April 2007). "Are high-protein, vegetable-based diets safe for kidney function? A review of the literature". Journal of the American Dietetic Association. 107 (4): 644-50. doi:10.1016/j.jada.2007.01.002. PMID 17383270. S2CID 39551628. ^ Smart NA, Dieberg G, Ladhani M, Titus T (June 2014). "Early referral to specialist nephrology services for preventing the progression to end-stage kidney disease". The Cochrane Database of Systematic Reviews (6): CD007333. doi:10.1002/14651858.CD007333.pub2. PMID 24938824. ^ Dirkx TC, Woodell T, Watnick S (2017). Papadakis MA, McPhee SJ, Rabow MW (eds.). Current Medical Diagnosis & Treatment 2018. New York, NY: McGraw-Hill Education. Retrieved from " health centersheart center Disease and Conditions Iron Overload Atherosclerosis is a disease of blood vessels. In this condition, the innermost layer of the blood vessels (endothelium) is constricted by the deposition of fat, calcium and cellular debris. Atherosclerosis leads to the narrowing of the artery, which in turn reduces the flow of blood passing through it. The reduced blood flow results in a depletion of the amount of oxygen and nutrients reaching the affected part of the body. Atherosclerosis is a specific kind of arteriosclerosis, but these terms are often used interchangeably. Both conditions lead to decreased blood flow to other parts of the body. Atherosclerosis is still unknown; however, plaque formation begins when there is damage to the endothelium of these terms are often used interchangeably. artery. Some of the most common factors which are more likely to cause this damage are: Other risk factors include: Early diagnosis of present any symptoms may occur depending on the arteries that are affected. The various symptoms are: Early diagnosis of atherosclerosis is important to prevent further complications. The physician evaluates the medical history and looks for the symptoms to diagnose atherosclerosis are: Anemia: Common Causes, Symptoms, Types, and Treatment See Slideshow The treatment approach of atherosclerosis involves: Controlling risk factors Controlling risk factors Controlling or clogging arteries. Antihypertensive medications such as diuretics or angiotensin-converting enzyme inhibitors (ACEI) may be used to control blood pressure. Lifestyle changes that can be helpful include: Eating a healthy diet that is free of saturated fats and cholesterolAvoiding fried and fatty foodsConsuming fish twice a weekExercising daily for at least three to four hoursQuitting tobacco useStress managementWeight loss Arteriosclerosis are both conditions that affect the arterial walls, which can occur due to aging or other factors such as high blood pressure or diabetes. On the other hand, atherosclerosis is a specific type of arteriosclerosis is a specific type of arteriosclerosis that involves the buildup of plaque within the arteries, potentially leading to blockages and reduced blood flow. While arteriosclerosis is a broader term encompassing various arterial changes, atherosclerosis are two common cardiovascular diseases that affect the arteries. While they share some similarities, they also have distinct characteristics that set them apart. In this article, we will explore the attributes of arteriosclerosis and atherosclerosis is a general term used to describe the thickening and hardening of the arterial walls. It is a progressive condition that typically occurs with age. The main characteristic of arteriosclerosis is the loss of elasticity in the arteries, which can lead to reduced blood pressure. This condition affects various arteries is the loss of elasticity in the arteriosclerosis is the loss of elasticity in the arteries, which can lead to reduced blood flow and increased blood pressure. the accumulation of fatty deposits, known as plaques, on the inner walls of the arterial lumen, restricting blood flow to vital organs and tissues. Additionally, chronic inflammation and damage to the arterial walls contribute to the development of arteriosclerosis. Arteriosclerosis often presents with symptoms such as chest pain, shortness of breath, fatigue, and leg pain during physical activity. However, in the early stages, it may be asymptomatic, making it difficult to detect. If left untreated, arteriosclerosis can lead to serious complications, including heart attack, stroke, kidney problems and peripheral artery disease. Several risk factors increase the likelihood of developing arteriosclerosis. These include advanced age, smoking, high blood pressure, high cholesterol levels, obesity, diabetes, a sedentary lifestyle modifications and appropriate medical interventions, the progression of arteriosclerosis can be slowed or even prevented. Atherosclerosis that involves the formation of plaques within the arterial walls. It is the most common form of arteriosclerosis and is often used interchangeably with the term "hardening of the arteries." Atherosclerosis primarily affects large and medium-sized arteries, including those supplying the heart, brain, and lower extremities. The development of atherosclerosis begins with damage to the inner lining of the arteries, known as the endothelium. factors. Once the endothelium is injured, cholesterol and other substances in the blood begin to accumulate at the site, triggering an inflammatory response. Over time, these deposits form plaques that narrow the arterial lumen and impede blood flow. Unlike arteriosclerosis, atherosclerosis, ather occurs. Symptoms may vary depending on the affected arteries are involved, a stroke may occur. Peripheral artery disease can cause leg pain and difficulty walking. Several risk factors contribute to the development of atherosclerosis. These include smoking, high blood pressure, high cholesterol levels, diabetes, obesity, a sedentary lifestyle, and a family history of cardiovascular disease. By managing these risk factors and adopting a heart-healthy lifestyle, individuals can reduce their chances of developing atherosclerosis and its associated complications. Comparison While arterios clerosis and atherosclerosis share similarities, such as their impact on arterial health and the involvement: Arteriosclerosis affects various arteries throughout the body, including those in the heart, brain, kidneys, and limbs. In contrast, atherosclerosis primarily affects large and medium-sized arteriosclerosis is a specificity: Arteriosclerosis is a specificity: Arteriosclerosis is a specificity: Arteriosclerosis is a specificity affects large and hardening. symptoms such as chest pain, shortness of breath, fatigue, and leg pain during physical activity. Atherosclerosis, on the other hand, often remains asymptomatic until a significant blockage occurs, leading to condition that typically occurs with age. Atherosclerosis, as a subtype of arteriosclerosis, develops due to specific risk factors and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanaged. Location: Arteriosclerosis and can progress over time if left unmanag atherosclerosis are both significant cardiovascular diseases that impact arterial health. While arteriosclerosis is a broader term referring to the thickening and hardening of arterial walls, atherosclerosis is a broader term referring to the thickening and hardening of arterial walls, atherosclerosis is a broader term referring to the thickening and hardening of arterial walls, atherosclerosis are both significant cardiovascular diseases that impact arterial health. detection, prevention, and appropriate management. By addressing risk factors, adopting a heart-healthy lifestyle, and seeking medical guidance, individuals can reduce their chances of developing these conditions and their associated complications. Comparisons may contain inaccurate information about people, places, or facts. Please report any