The Kidney Failure GLOSSARY

U.S. Department of Health and Human Services

NATIONAL INSTITUTES OF HEALTH

NIDDK | NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

National Kidney and Urologic Diseases Information Clearinghouse

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Some terms listed have many meanings; only those meanings that relate to kidney failure and its treatments are included. Words that appear in ***bold italic*** are listed elsewhere in the dictionary.

Information in this dictionary is not a substitute for a visit to your doctor. Talk with a health professional if you have problems with your kidney failure treatment.

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Pronunciation Guide

This pronunciation guide uses letters and letter combinations, rather than phonetic symbols, to stand for the various sounds in the English language.

Vowels

a	c**a**t, b**a**t
ah	f**a**ther
air	p**ear**, h**air**
ar	p**ar**k
ay	s**ay**, c**a**me, w**eigh**
aw	s**aw**, b**ough**t
e	b**e**t, s**e**t
eh	(used at the *end* of a syllable or when standing alone) examples: meadow (M**EH**-doh) enemy (**EH**-nuh-mee) *but* diet (DY-**e**t)
ee	f**ee**t, n**ea**t
i	s**i**t, **i**gloo
ih	(used at the *end* of a syllable or when standing alone) examples: chicken (CH**IH**-ken) miracle (MIHR-**ih**-kuhl) *but* picnic (PIK-nik)
ihr	n**ear**, h**ere**
y	f**i**re, **i**dol
eye	(used at the *beginning* of a syllable or when standing alone) examples: iron (**EYE**-urn) chloride (KLOR-**eye**d) *but* silent (S**Y**-luhnt)
o	h**o**t, c**o**t
oh	c**oa**t, h**o**me
oo	f**oo**d, r**u**de
or	t**ore**, s**oar**, f**or**
oy	s**oil**, b**oy**
ou	n**ow**, c**ou**ch
u	p**u**t, f**oo**t
uh	**a**bout, s**u**m, chin**a**
ur	h**ur**t, al**er**t
yoo	**u**se
yoor	c**ure**

Consonants

b	**b**at, jo**b**
ch	**ch**op, i**tch**
d	**d**ig, be**d**
f	**f**ur, tou**gh**, cal**f**
g	**g**rape, bi**g**
h	**h**appy
j	**j**oke, nu**dg**e
k	**k**ite, **c**ar, ta**ck**
l	**l**ip, se**ll**
m	**m**ove, ja**m**
n	**n**ot, **kn**ee
ng	ri**ng**
p	**p**lay, ho**p**
r	**r**ain, fu**r**
s	**s**et, tip**s**
ss	bu**s**, gue**ss**, fen**c**e
sh	**sh**y, fi**sh**
t	**t**oy, boa**t**
th	brea**th**
v	**v**ine, ha**v**e
w	**w**alk, **wh**ere
y	**y**es
z	**z**ip, ja**zz**, ha**s**
zh	mea**s**ure

A

access (AK-sess): in ***dialysis,*** the point on the body where a needle or ***catheter*** is inserted. See ***arteriovenous fistula, graft, vascular access,*** and catheter.

acute (uh-KYOOT): refers to conditions that happen suddenly and last a short time. Acute is the opposite of ***chronic,*** or long lasting.

acute kidney injury (uh-KYOOT) (KID-nee) (IN-jur-ee): sudden and temporary loss of ***kidney function.*** See ***chronic kidney disease.***

albumin (al-BYOO-min): the main ***protein*** in blood. Large amounts of albumin in the ***urine*** may be a sign of ***chronic kidney disease.*** See ***urine albumin-to-creatinine ratio.***

albuminuria (al-BYOO-min-YOO-ree-uh): a condition in which the ***urine*** has more than normal amounts of a ***protein*** called ***albumin.*** Albuminuria may be a sign of ***chronic kidney disease.*** See ***urine albumin-to-creatinine ratio.***

allograft (AL-oh-graft): an organ or tissue ***transplant*** from one human to another.

amyloidosis (AM-ih-loy-DOH-siss): a condition in which a proteinlike material builds up in one or more organs. This material cannot be broken down and interferes with the normal function of that organ. People who have been on ***dialysis*** for several years often develop amyloidosis because the artificial ***membranes*** used in dialysis fail to filter the proteinlike material out of the blood.

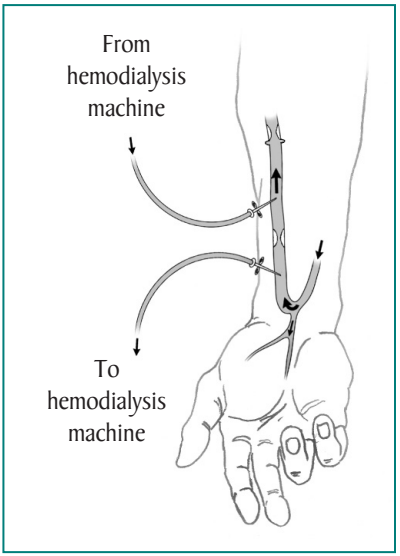
anemia (uh-NEE-mee-uh): a condition in which the number of red blood cells is less than normal, resulting in less oxygen carried to the body's cells. Anemia can cause extreme fatigue. Anemia is common in people with ***chronic kidney disease*** or those on ***dialysis.*** See ***erythropoietin.***

antibiotic (AN-tee-by-OT-ik): a medicine that kills ***bacteria.***

anuria (an-YOO-ree-uh): a condition in which the body stops making ***urine.***

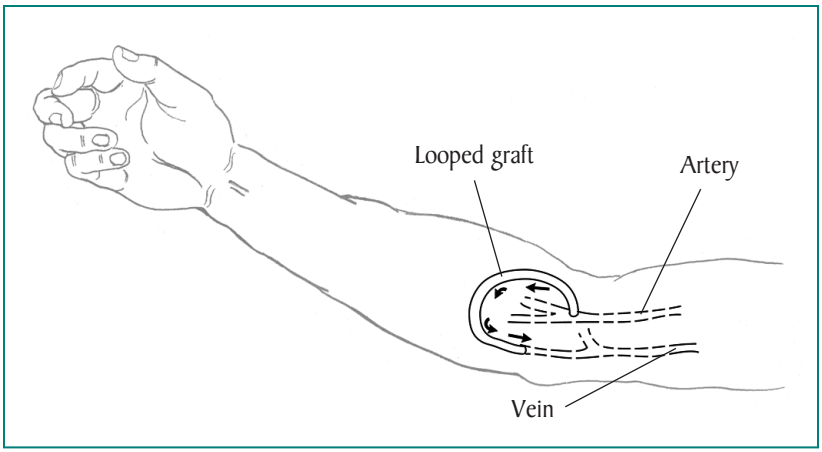
arterial line (ar-TIHR-ee-uhl) (lyn): in ***hemodialysis,*** the tubing that takes blood from the body to the ***dialyzer.*** See ***hemodialysis*** under ***dialysis.***

arteriovenous (AV) fistula (ar-TIHR-ee-oh-VEE-nuhss) (FISS-tyoo-luh): surgical connection of an ***artery*** directly to a ***vein,*** usually in the forearm, created in people who will need ***hemodialysis.*** The AV fistula causes the vein to grow thicker, allowing the repeated needle insertions required for hemodialysis. Development of the AV fistula takes 4 to 6 months after surgery before it can be used for hemodialysis. The AV fistula is the preferred method of ***access.*** See ***hemodialysis*** under ***dialysis.***



Arteriovenous fistula

arteriovenous (AV) graft (ar-TIHR-ee-oh-VEE-nuhss) (graft): in ***hemodialysis,*** surgical connection of an ***artery*** to a ***vein*** using a soft, flexible tube, which can be used for repeated needle sticks. See ***hemodialysis*** under ***dialysis.***



Arteriovenous graft

artery (AR-tur-ee): a large blood vessel that carries blood with oxygen from the heart to all parts of the body.

artificial kidney (AR-tuh-FIH-shuhl) (KID-nee): another name for a ***dialyzer.***

autoimmune disease (AW-toh-ih-MYOON) (dih-ZEEZ): a disorder of the body's ***immune system*** in which the immune system mistakenly attacks and destroys body tissue it believes to be foreign.

B

bacteria (bak-TIHR-ee-uh): tiny organisms that cause infection or disease.

biopsy (BY-op-see): a procedure in which a tiny piece of tissue, such as from the ***kidney*** or ***bladder,*** is removed for examination with a microscope.

bladder (BLAD-ur): the balloon-shaped organ inside the pelvis that holds ***urine.***

blood urea nitrogen (BUN) (bluhd) (yoo-REE-uh) (NY-troh-jen): a waste product in the blood that comes from the breakdown of protein. The ***kidneys*** filter blood to remove ***urea.*** As ***kidney function*** decreases, the BUN level increases.

BUN (BEE-YOO-EN): see ***blood urea nitrogen.***

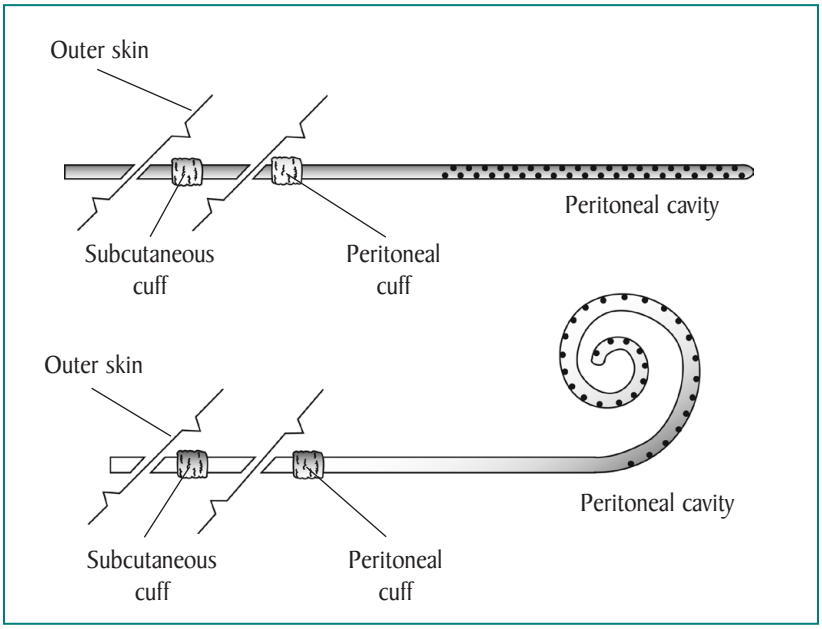
C

calcitriol (KAL-sih-TRY-ol): a ***hormone*** produced by the ***kidneys*** to help the body absorb dietary calcium into the blood and bones.

calcium (KAL-see-uhm): a mineral the body needs for strong bones and teeth. Under certain conditions, calcium may form stones in the ***kidney.***

CAPD (SEE-AY-PEE-DEE): see ***continuous ambulatory peritoneal dialysis*** under ***dialysis.***

catheter (KATH-uh-tur): a tube inserted through the skin into a blood vessel or cavity to draw out body fluid or infuse fluid. In ***peritoneal dialysis,*** a catheter is used to infuse ***dialysis solution*** into the abdominal cavity and drain it out again. See ***peritoneal dialysis*** under ***dialysis.***



Two double-cuff Tenckhoff chronic peritoneal catheters: standard (top), curled (bottom)

CCPD (SEE-SEE-PEE-DEE): see ***continuous cycling peritoneal dialysis*** under ***dialysis.***

chronic (KRON-ik): refers to disorders that last a long time, often years. ***Chronic kidney disease*** may develop over many years and lead to ***end-stage renal disease.*** Chronic is the opposite of ***acute,*** or brief.

chronic kidney disease (CKD) (KRON-ik) (KID-nee) (dih-ZEEZ): any condition that causes reduced ***kidney function*** over a period of time. CKD is present when a patient's ***glomerular filtration rate*** remains below 60 milliliters per minute for more than 3 months or when a patient's ***urine albumin-to-creatinine ratio*** is over 30 milligrams (mg) of ***albumin*** for each gram (g) of ***creatinine*** (30 mg/g). CKD may develop over many years and lead to ***end-stage renal disease.***

chronic kidney disease-mineral and bone disorder (CKD-MBD) (KRON-ik) (KID-nee) (dih-ZEEZ) (MIN-ur-uhl) (and) (BOHN) (diss-OR-dur): abnormal bone ***hormone*** levels caused by the failure of the diseased ***kidneys*** to maintain the proper levels of ***calcium*** and ***phosphorus*** in the blood. CKD-MBD results in weak bones, a condition known as ***renal osteodystrophy.*** CKD-MBD is a common problem in people with kidney disease and affects almost all patients receiving ***dialysis.***

CKD (SEE-KAY-DEE): see ***chronic kidney disease.***

CKD-MBD (SEE-KAY-DEE-EM-BEE-DEE): see ***chronic kidney disease-mineral and bone disorder.***

continuous ambulatory peritoneal dialysis (CAPD) (kon-TIN-yoo-uhss) (AM-byoo-luh-TOR-ee) (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): see ***peritoneal dialysis*** under ***dialysis.***

continuous cycling peritoneal dialysis (CCPD) (kon-TIN-yoo-uhss) (SY-kling) (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): see ***peritoneal dialysis*** under ***dialysis.***

creatinine (kree-AT-ih-neen): a waste product from protein in the diet and from the normal breakdown of muscles of the body. Creatinine is removed from blood by the ***kidneys;*** as kidney disease progresses, the level of creatinine in the blood increases.

creatinine clearance (kree-AT-ih-neen) (KLIHR-ants): a test that measures how efficiently the ***kidneys*** remove ***creatinine*** from the blood. Low creatinine clearance indicates impaired ***kidney function.***

cross-matching: before a ***transplant,*** the ***donor's*** blood is tested with the recipient's blood to see whether they are compatible.

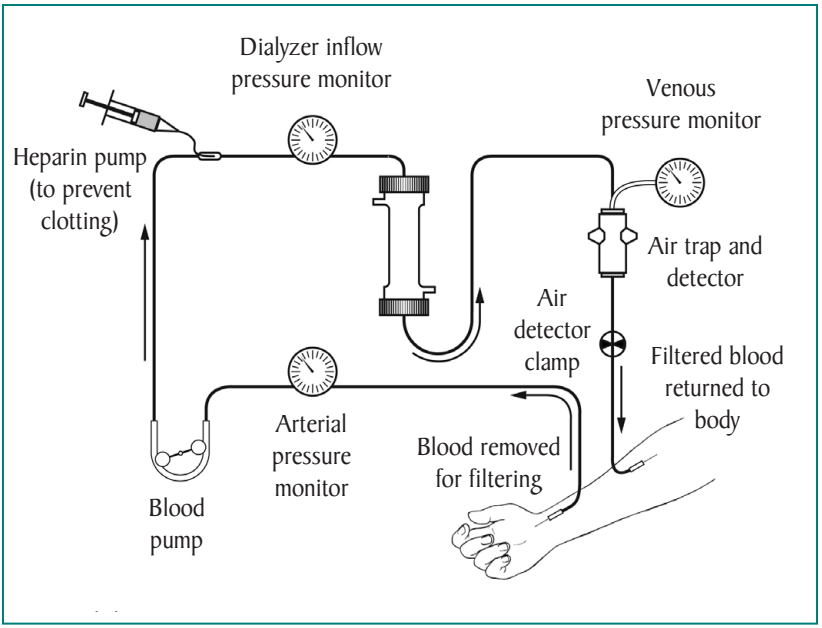
D

diabetes (DY-uh-BEE-teez): a condition characterized by high blood glucose, resulting from the body's inability to use blood glucose for energy. In type 1 diabetes, the pancreas no longer makes insulin, and therefore glucose cannot enter the cells to be used for energy. In type 2 diabetes, either the pancreas does not make enough insulin or the body is unable to use insulin correctly.

dialysate (dy-AL-ih-SAYT): the part of a mixture that passes through a ***semipermeable membrane.*** The wastes from blood that pass into the ***dialysis solution*** become dialysate. The term dialysate is sometimes used as a synonym for dialysis solution.

dialysis (dy-AL-ih-siss): the process of filtering wastes from the blood artificially. This job is normally done by the ***kidneys.*** If the kidneys fail, the blood must be filtered artificially. The two major forms of dialysis are ***hemodialysis*** and ***peritoneal dialysis.***

- **hemodialysis** (HEE-moh-dy-AL-ih-siss): the use of a machine to filter wastes from the blood after the ***kidneys*** have failed. The blood travels through tubes to a ***dialyzer,*** which removes wastes and extra fluid. The filtered blood then flows through another set of tubes back into the body.



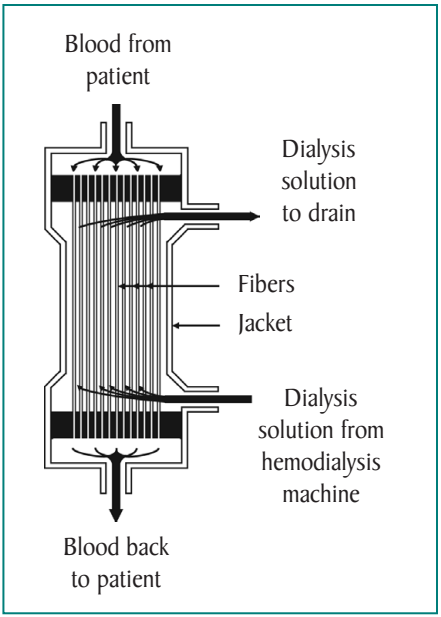
Hemodialysis

- **peritoneal dialysis** (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): filtering the blood by using the lining of the abdominal cavity, or belly, as the filter. A cleansing liquid, called ***dialysis solution,*** is drained from a bag into the abdomen. Fluid and wastes flow through the lining of the abdominal cavity and remain "trapped" in the dialysis solution. The solution is then drained from the abdomen, removing the extra fluid and wastes from the body. The two main types of peritoneal dialysis are ***continuous ambulatory peritoneal dialysis*** and ***continuous cycling peritoneal dialysis.***

- **continuous ambulatory peritoneal dialysis (CAPD)** (kon-TIN-yoo-uhss) (AM-byoo-luh-TOR-ee) (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): a form of peritoneal dialysis that does not need a machine. With CAPD, the blood is always being filtered. The ***dialysis solution*** passes from a plastic bag through a ***catheter*** and into the abdomen. The dialysis solution stays in the abdomen with the catheter sealed. After several hours, the person using CAPD drains the solution back into a disposable bag. Then the person refills the abdomen with fresh solution through the same catheter to begin the filtering process again.
- **continuous cycling peritoneal dialysis (CCPD)** (kon-TIN-yoo-uhss) (SY-kling) (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): a form of peritoneal dialysis that uses a machine. This machine automatically fills and drains the ***dialysis solution*** from the abdomen. A typical CCPD schedule involves three to five ***exchanges*** during the night while the person sleeps. During the day, the person using CCPD performs one exchange with a ***dwell time*** that lasts the entire day.

dialysis solution (dy-AL-ih-siss) (suh-LOO-shuhn): a cleansing liquid used in the two major forms of ***dialysis—hemodialysis*** and ***peritoneal dialysis.*** Dialysis solution contains dextrose, a sugar, and other chemicals similar to those in the body. Dextrose draws wastes and extra fluid from the body into the dialysis solution. The term ***dialysate*** is sometimes used as a synonym for dialysis solution.

dialyzer (DY-uh-LY-zur): an attachment to the ***hemodialysis*** machine. The dialyzer has two sections separated by a ***membrane***. One section holds ***dialysis solution***. The other holds the patient's blood. See ***hemodialysis*** under ***dialysis***.



Structure of a typical hollow fiber dialyzer

diffusion (dih-FYOO-zhuhn): the tendency of molecules packed together in a small, dense area to spread out by crossing a ***semipermeable membrane*** into a larger area with a lower concentration of molecules. In ***dialysis,*** wastes and excess ***electrolytes*** diffuse from the blood to the ***dialysis solution***.

donor (DOH-nur): a person who gives blood, tissue, or an organ for transplantation. In ***kidney*** transplantation, the donor may be someone who is still alive, often a relative, or someone who has just died. See ***transplant***.

dry weight (dry) (wayt): the ideal weight for a person after a ***hemodialysis*** treatment. It is the weight at which a person's blood pressure is normal and no swelling exists because all excess fluid has been removed. See ***hemodialysis*** under ***dialysis***.

dwell time: in ***peritoneal dialysis,*** the amount of time ***dialysis solution*** remains in the patient's abdominal cavity between ***exchanges***. See ***peritoneal dialysis*** under ***dialysis***.

E

edema (eh-DEE-muh): swelling caused by too much fluid in the body.

electrolytes (ee-LEK-troh-lyts): chemicals in the body fluids and ***dialysis solution,*** including ***sodium, potassium,*** magnesium, and chloride. The ***kidneys*** control the amount of electrolytes in the body. When the kidneys fail, electrolytes get out of balance, causing potentially serious health problems. ***Dialysis*** can restore the balance.

end-stage renal disease (ESRD) (END-STAYJ) (REE-nuhl) (dih-ZEEZ): total and permanent ***kidney failure.*** When the ***kidneys*** fail, the body retains fluid. Harmful wastes build up. A person with ESRD needs treatment to replace the work of the failed kidneys.

erythropoietin (uh-RITH-roh-POY-uh-tin): a ***hormone*** made by the ***kidneys*** to help form red blood cells. Lack of this hormone may lead to ***anemia.***

ESRD (EE-ESS-AR-DEE): see ***end-stage renal disease.***

exchange (eks-CHAYNJ): in ***peritoneal dialysis,*** the draining of used ***dialysis solution*** from the abdomen, followed by refilling with a fresh bag of solution. See ***peritoneal dialysis*** under ***dialysis.***

F

fistula (FISS-tyoo-luh): see ***arteriovenous fistula.***

G

GFR (JEE-EF-AR): see ***glomerular filtration rate.***

glomerular filtration rate (GFR) (gloh-MAIR-yoo-lar) (fil-TRAY-shuhn) (rayt): the rate at which the ***kidneys*** filter wastes and extra fluid from the blood, measured in milliliters per minute.

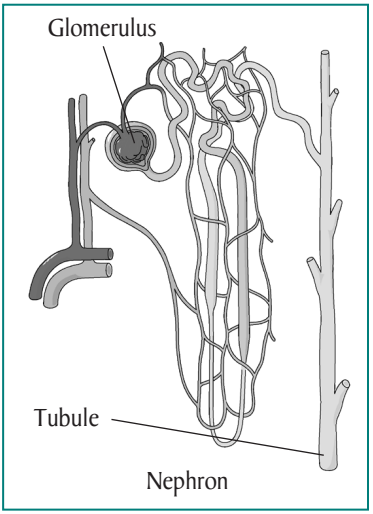
glomeruli (gloh-MAIR-yoo-ly): plural of ***glomerulus.***

glomerulonephritis (gloh-MAIR-yoo-loh-neh-FRY-tiss): inflammation of the ***glomeruli.*** Most often, it is caused by an ***autoimmune disease,*** but it can also result from infection.

glomerulosclerosis (gloh-MAIR-yoo-loh-skluh-ROH-suhss): scarring of the ***glomeruli.*** It may result from ***diabetes*** (diabetic glomerulosclerosis) or from deposits in parts of the glomeruli (focal segmental glomerulosclerosis). The most common signs of glomerulosclerosis are ***proteinuria*** and ***chronic kidney disease.***

glomerulus (gloh-MAIR-yoo-luhss): a tiny set of looping blood vessels in the ***nephron*** where blood is filtered in the ***kidney.***

graft: in a ***transplant,*** the transplanted organ or tissue. See also ***arteriovenous graft.***



Glomerulus

H

hematocrit (hee-MAT-oh-krit): a measure that tells what portion of a blood sample consists of red blood cells. Low hematocrit suggests ***anemia*** or massive blood loss.

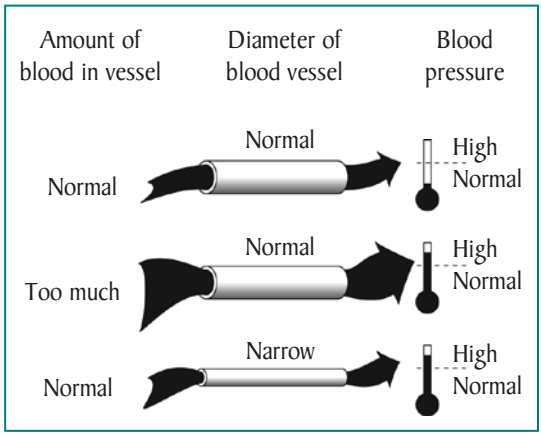
hematuria (HEE-muh-TYOO-ree-uh): blood in the ***urine,*** which can be a sign of a kidney stone, ***glomerulonephritis,*** or other ***kidney*** problem.

hemodialysis (HEE-moh-dy-AL-ih-siss): see ***dialysis.***

hormone (HOR-mohn): a natural chemical produced in one part of the body and released into the blood to trigger or regulate particular body functions. The ***kidney*** releases three hormones: ***erythropoietin, renin,*** and ***calcitriol.***

hyperkalemia (HY-pur-kuh-LEE-mee-uh): abnormally large amounts of ***potassium*** in the blood, often as a result of poor ***kidney function*** or inadequate ***dialysis.***

hypertension (HY-pur-TEN-shuhn): a condition present when blood flows through the blood vessels with a force greater than normal. Also called high blood pressure. Hypertension can strain the heart, damage blood vessels, and increase the risk of ***kidney*** problems, heart attack, stroke, and death.



Hypertension

I

immune system (ih-MYOON) (SISS-tuhm): the body's system for protecting itself from viruses and ***bacteria*** or any foreign substances.

immunosuppressant (IM-yoo-noh-soo-PRESS-uhnt): a drug given to stop the natural responses of the body's ***immune system.*** Immunosuppressants are given to prevent organ rejection in people who have received a ***transplant*** and to people with certain ***autoimmune diseases,*** such as lupus.

interstitial nephritis (IN-tur-STISH-uhl) (neh-FRY-tiss): inflammation of the ***kidney*** cells that are not part of the fluid-collecting units. Interstitial nephritis is a condition that can lead to ***acute renal failure*** or ***chronic kidney disease.***

intravenous pyelogram (IN-truh-VEE-nuhss) (PY-el-oh-GRAM): an x ray of the ***urinary tract.*** A dye is injected into a ***vein*** in the patient's arm to make the ***kidneys, ureters,*** and ***bladder*** visible on the x ray and to show any blockage in the urinary tract.

K

kidney (KID-nee): one of the two bean-shaped organs that filter wastes from the blood. The kidneys are located near the middle of the back, one on each side of the spine. They create ***urine,*** which is delivered to the ***bladder*** through tubes called ***ureters.***

kidney failure (KID-nee) (FAYL-yoor): loss of ***kidney function.*** See ***end-stage renal disease, acute renal failure,*** and ***chronic kidney disease.***

kidney function (KID-nee) (FUHNK-shuhn): the amount of work done by the ***kidneys.*** A decline in kidney function means the kidneys are not filtering wastes and fluid from the blood as well as they should. See ***glomerular filtration rate.***

Kt/V (KAY-TEE-OH-vur-VEE): a measurement of ***dialysis*** dose. The measurement takes into account the efficiency of the ***creatinine clearance,*** the treatment time, and the total volume of ***urea*** in the body. Kt/V is also used in determining the adequacy of ***peritoneal dialysis.*** See ***urea reduction ratio.*** See ***peritoneal dialysis*** under ***dialysis.***

M

membrane (MEM-brayn): see ***semipermeable membrane.***

membranoproliferative glomerulonephritis (MPGN) (MEM-bruh-noh-proh-LIF-ur-uh-tiv) (gloh-MAIR-yoo-loh-neh-FRY-tiss): a disease in which inflammation leads to scarring in the ***glomeruli,*** causing ***proteinuria, hematuria,*** and sometimes ***chronic kidney disease*** or ***end-stage renal disease.*** MPGN occurs primarily in children and young adults.

MPGN (EM-PEE-JEE-EN): see ***membranoproliferative glomerulonephritis.***

N

nephrectomy (neh-FREK-toh-mee): surgical removal of a ***kidney.***

nephrologist (neh-FROL-uh-jist): a doctor who treats people who have ***kidney*** problems or related conditions, such as ***hypertension.***

nephrology (neh-FROL-uh-jee): a branch of medicine concerned with diseases of the ***kidneys.***

nephron (NEF-ron): a tiny part of the ***kidneys.*** Each kidney is made up of about 1 million nephrons, which are the working units of the kidneys, removing wastes and extra fluids from the blood.

nephrotic syndrome (nef-ROT-ik) (SIN-drohm): a collection of symptoms that indicate ***kidney*** damage. Symptoms include high levels of protein in the ***urine,*** lack of protein in the blood, and high blood cholesterol.

nuclear scan (NOO-klee-ur) (skan): a test of the structure, blood flow, and function of the ***kidneys.*** The doctor injects a mildly radioactive solution into a patient's arm ***vein*** and uses x rays to monitor its progress through the kidneys.

O

osmosis (oss-MOH-siss): movement of water across a ***semipermeable membrane*** from a diluted area to a more concentrated area.

P

peritoneal cavity (PAIR-ih-toh-NEE-uhl) (KAV-ih-tee): the space inside the lower abdomen but outside the internal organs.

peritoneal dialysis (PAIR-ih-toh-NEE-uhl) (dy-AL-ih-siss): see ***dialysis.***

peritoneum (PAIR-ih-toh-NEE-uhm): the ***semipermeable membrane*** lining the ***peritoneal cavity.***

peritonitis (PAIR-ih-toh-NY-tiss): inflammation of the ***peritoneum,*** a complication of ***peritoneal dialysis.*** See ***dialysis.***

phosphorus (FOSS-for-uhss): a mineral found in many foods, such as beans, nuts, milk, and meat. Too much phosphorus in the blood pulls ***calcium*** from the bones.

potassium (poh-TASS-ee-uhm): a mineral and ***electrolyte*** found in the body and in many foods.

proteinuria (proh-teen-YOO-ree-uh): a condition in which the ***urine*** contains large amounts of protein, a sign that the ***kidneys*** are damaged. See ***albumin*** and ***urine albumin-to-creatinine ratio.***

R

renal (REE-nuhl): of or relating to the ***kidneys.*** A renal disease is a disease of the kidneys. Renal failure means the kidneys are damaged.

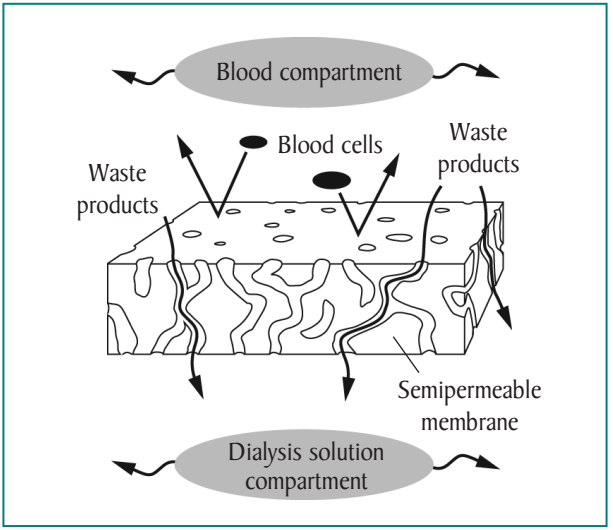
renal osteodystrophy (REE-nuhl) (OSS-tee-oh-DISS-troh-fee): weak bones caused by ***chronic kidney disease-mineral and bone disorder.*** Renal osteodystrophy is a common problem for people on ***dialysis*** who have high phosphate levels or insufficient vitamin D supplementation.

renal pelvis (REE-nuhl) (PEL-viss): the basin into which the ***urine*** formed by the ***kidneys*** is excreted before it travels to the ***ureters*** and ***bladder.***

renin (REE-nin): a ***hormone*** made by the ***kidneys*** that helps regulate the volume of fluid in the body and blood pressure.

S

semipermeable membrane (SEM-ee-PUR-mee-uh-buhl) (MEM-brayn): a thin sheet, or layer, of tissue that lines a body cavity or separates two parts of the body. A semipermeable membrane can act as a filter, allowing some particles to pass from one part of the body to another while keeping other particles in place. In ***hemodialysis,*** the artificial membrane in a ***dialyzer*** acts as the semipermeable membrane filtering waste products from the blood. In ***peritoneal dialysis,*** the ***peritoneum*** acts as the semipermeable membrane.



Semipermeable membrane

sodium (SOH-dee-uhm): a mineral and ***electrolyte*** found in the body and in many foods.

T

thrill: a vibration or buzz that can be felt in an ***arteriovenous fistula,*** an indication that blood is flowing through the fistula.

transplant (TRANZ-plant): replacement of a diseased organ with a healthy one. A ***kidney*** transplant may come from a living ***donor,*** often a relative, or from someone who has just died.

U

UACR (YOO-AY-SEE-AR): see ***urine albumin-to-creatinine ratio.***

UF (YOO-EF): see ***ultrafiltration.***

ultrafiltration (UF) (UHL-truh-fil-TRAY-shuhn): in ***dialysis,*** the process by which fluid from the blood passes through a ***semipermeable membrane*** into a ***dialysis solution.*** In ***peritoneal dialysis,*** UF is measured as the volume of solution drained at the end of an ***exchange*** minus the volume of solution filled at the beginning of the exchange.

urea (yoo-REE-uh): a waste product found in the blood that results from the normal breakdown of protein in the liver. Urea is normally removed from the blood by the ***kidneys*** and then excreted in the ***urine.*** Urea accumulates in the body of people with ***kidney failure.***

urea reduction ratio (URR) (yoo-REE-uh) (ree-DUHK-shuhn) (RAY-shee-oh): a blood test that compares the amount of ***blood urea nitrogen*** before and after ***dialysis*** to measure the effectiveness of the dialysis dose.

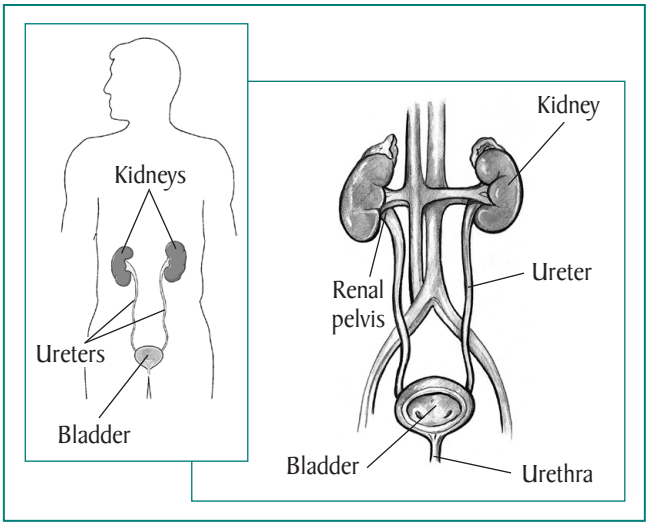
uremia (yoo-REE-mee-uh): the illness associated with the buildup of ***urea*** in the blood because the ***kidneys*** are damaged. Symptoms include nausea, vomiting, loss of appetite, weakness, and mental confusion.

ureters (YOOR-uh-turz): tubes that carry ***urine*** from the ***kidneys*** to the ***bladder***.

urethra (yoo-REE-thruh): the tube that carries ***urine*** from the ***bladder*** to the outside of the body.

urinalysis (YOOR-ih-NAL-ih-siss): a test of a ***urine*** sample that can reveal many problems of the ***urinary tract*** and other body systems. The sample may be observed for color, cloudiness, and concentration; signs of drug use; chemical composition, including glucose; the presence of protein, blood cells, or germs; or other signs of disease.

urinary tract (YOOR-ih-NAIR-ee) (trakt): the system that takes wastes from the blood and carries them out of the body in the form of ***urine***. The urinary tract includes the ***kidneys***, ***renal pelvises***, ***ureters***, ***bladder***, and ***uretha***.



Urinary tract

urinate (YOOR-ih-nayt): to release ***urine*** from the ***bladder*** to the outside of the body.

urine (YOOR-in): liquid waste product filtered from the blood by the ***kidneys,*** stored in the ***bladder,*** and expelled from the body through the ***urethra*** by the act of urinating. See ***urinate.***

urine albumin-to-creatinine ratio (UACR) (YOOR-in) (al-BYOO-min) (too) (kree-AT-ih-neen) (RAY-shee-oh): a measurement that compares the amount of ***albumin*** with the amount of ***creatinine*** in a ***urine*** sample. A patient has ***chronic kidney disease*** if the UACR is over 30 milligrams (mg) of albumin for each gram (g) of creatinine (30 mg/g).

URR (YOO-AR-AR): see ***urea reduction ratio.***

V

vascular access (VASS-kyoo-lur) (AK-sess): a general term to describe where blood is removed from and returned to the body during ***hemodialysis.*** A vascular access may be an ***arteriovenous fistula,*** an ***arteriovenous graft,*** or a ***catheter.*** See ***hemodialysis*** under ***dialysis.***

vein (vayn): a blood vessel that carries blood to the heart.

venous line (VEE-nuhss) (lyn): in ***hemodialysis,*** tubing that carries blood from the ***dialyzer*** back to the body. See ***hemodialysis*** under ***dialysis.***

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The NIDDK Kidney Failure Series includes booklets and fact sheets that can help you learn more about treatment methods for kidney failure, complications of dialysis, financial help for the treatment of kidney failure, and eating right on hemodialysis. For free single printed copies of this series, please contact the National Kidney and Urologic Diseases Information Clearinghouse.

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