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

Chronic Kidney Disease

Also called: CKD

You have two kidneys, each about the size of your fist. Their main job is to filter your blood. They remove wastes and extra water, which become urine. They also keep the body's chemicals balanced, help control blood pressure, and make hormones.

Chronic kidney disease (CKD) means that your kidneys are damaged and can't filter blood as they should. This damage can cause wastes to build up in your body. It can also cause other problems that can harm your health. Diabetes and high blood pressure are the most common causes of CKD.

The kidney damage occurs slowly over many years. Many people don't have any symptoms until their kidney disease is very advanced. Blood and urine tests [<https://medlineplus.gov/kidneytests.html>] are the only way to know if you have kidney disease.

Treatments cannot cure kidney disease, but they may slow kidney disease. They include medicines to lower blood pressure [<https://medlineplus.gov/bloodpressuremedicines.html>] , control blood sugar [<https://medlineplus.gov/bloodglucose.html>] , and lower cholesterol [<https://medlineplus.gov/cholesterol.html>] . CKD may still get worse over time. Sometimes it can lead to kidney failure [<https://medlineplus.gov/kidneyfailure.html>] . If your kidneys fail, you will need dialysis [<https://medlineplus.gov/dialysis.html>] or a kidney transplantation [<https://medlineplus.gov/kidneytransplantation.html>] .

You can take steps to keep your kidneys healthier longer:


- Choose foods with less salt [<https://medlineplus.gov/sodium.html>] (sodium)
- Control your blood pressure [<https://medlineplus.gov/howtopreventhighbloodpressure.html>] ; your health care provider can tell you what your blood pressure should be
- Keep your blood sugar in the target range, if you have diabetes [<https://medlineplus.gov/diabetes.html>]
- Limit the amount of alcohol you drink
- Choose foods that are healthy for your heart: fruits, vegetables, whole grains, and low-fat dairy foods
- Lose weight if you are overweight
- Be physically active
- Don't smoke

NIH: National Institute of Diabetes and Digestive and Kidney Diseases

Start Here

- Chronic Kidney Disease [<https://familydoctor.org/condition/chronic-kidney-disease-ckd/?adfree=true>]
(American Academy of Family Physicians)
Also in Spanish [<https://es.familydoctor.org/condicion/enfermedad-cronica-de-los-rinones-es/?adfree=true>]
- Chronic Kidney Disease (CKD) [<https://www.kidney.org/kidney-topics/chronic-kidney-disease-ckd>] (National Kidney Foundation)
- Chronic Kidney Disease (CKD) [<https://www.kidneyfund.org/all-about-kidneys/chronic-kidney-disease-ckd-symptoms-treatment-and-prevention>] (American Kidney Fund)

Also in Spanish [<https://www.kidneyfund.org/es/todo-sobre-los-rinones/los-sintomas-el-tratamiento-y-la-prevencion-de-la-enfermedad-renal-cronica-erc>]

- What Is Chronic Kidney Disease? [<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/what-is-chronic-kidney-disease>]  (National Kidney Disease Education Program)

Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/informacion-general/que-es>]

Diagnosis and Tests


- Creatinine Test [<https://medlineplus.gov/lab-tests/creatinine-test/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-creatinina/>]

- Kidney Tests: MedlinePlus Health Topic [<https://medlineplus.gov/kidneytests.html>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/kidneytests.html>]

Prevention and Risk Factors

- At Risk for Kidney Disease? [<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/causes>]  (National Kidney Disease Education Program)

Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/informacion-general/sintomas-causas>]

Treatments and Therapies

- Dandelion [<https://www.nccih.nih.gov/health/dandelion>]  (National Center for Complementary and Integrative Health)

- Herbal Supplements and Kidney Disease [<https://www.kidney.org/kidney-topics/herbal-supplements-and-kidney-disease>] (National Kidney Foundation)

Also in Spanish [<https://www.kidney.org/node/25438>]

Living With

- Are High-protein Diets Safe for Weight Loss? [<https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/high-protein-diets/faq-20058207?p=1>] (Mayo Foundation for Medical Education and Research)

Also in Spanish [<https://www.mayoclinic.org/es/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/high-protein-diets/faq-20058207?p=1>]

- Dining Out with Confidence - On Dialysis [<https://www.kidney.org/kidney-topics/dining-out-confidence-dialysis>]

(National Kidney Foundation)

Also in Spanish [<https://www.kidney.org/es/kidney-topics/comiendo-fuera-de-casa-con-confianza>]

- Healthy Eating for Adults with Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/healthy-eating-adults-chronic-kidney-disease>]

 (National Institute of Diabetes and Digestive and Kidney Diseases)

Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/informacion-general/alimentos-nutricion/dieta-nutricion-adultos-enfermedad-renal-cronica-avanzada>]

- Nutrition for Children with Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/children/helping-child-adapt-life-chronic-kidney-disease/nutrition-chronic-kidney-disease>]

 (National Kidney and Urologic Diseases Information Clearinghouse)

Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/ninos/nutricion-ninos-enfermedad-renal-cronica>]

- Potassium in Your CKD Diet [<https://www.kidney.org/kidney-topics/potassium-your-ckd-diet>] (National Kidney Foundation)

- Renal Diet for Vegetarians: What about Protein? [<https://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/expert-answers/renal-diet/faq-20058205?p=1>] (Mayo Foundation for Medical Education and Research)

Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/chronic-kidney-disease/expert-answers/renal-diet/faq-20058205?p=1>]




- Slowing Kidney Disease [<https://lifeoptions.org/learn-about-kidney-disease/slowing-kidney-disease/>]

(Life Options Rehabilitation Program)


- Vitamins and Minerals in Chronic Kidney Disease [<https://www.kidney.org/kidney-topics/vitamins-and-minerals-chronic-kidney-disease>] (National Kidney Foundation)

Working with Kidney Disease: Rehabilitation and Employment [<https://www.kidney.org/kidney-topics/working-kidney-disease-rehabilitation-and-employment>] (National Kidney Foundation)

Related Issues

- Anemia in Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/anemia>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/anemia>]
- If You Have Kidney Disease, You Need to Get a Flu Shot this Fall [<https://www.kidney.org/news-stories/if-you-have-kidney-disease-you-need-to-get-flu-shot-fall>] (National Kidney Foundation)
- Keeping Your Heart Healthy: What You Should Know about Lipids When You Have Chronic Kidney Disease (Stages 1-4) [https://www.kidney.org/sites/default/files/docs/11-50-2106_fba_patbro_hearthealthy_3_1_1.pdf] (National Kidney Foundation) - **PDF**
- Managing Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/informacion-general/control>]
- Mineral and Bone Disorder in Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/mineral-bone-disorder>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/alteracion-metabolismo-mineral-oseo>]
- Planning for Emergencies: A Guide for People with Chronic Kidney Disease [<https://www.kidney.org/kidney-topics/planning-emergencies-guide-people-kidney-disease>] (National Kidney Foundation)
- Sexual Health and Kidney Disease [<https://www.kidney.org/kidney-topics/sexual-health-and-kidney-disease>] (National Kidney Foundation)
- Staying Fit with Kidney Disease [<https://www.kidney.org/kidney-topics/staying-fit-kidney-disease>] (National Kidney Foundation)


Genetics

- Fibronectin glomerulopathy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/fibronectin-glomerulopathy/>]  (National Library of Medicine)

Videos and Tutorials

- Kidney School [<https://kidneyschool.org/mods/>] (Life Options Rehabilitation Program)

Statistics and Research

- FastStats: Kidney Disease [<https://www.cdc.gov/nchs/fastats/kidney-disease.htm>] (National Center for Health Statistics)
- Kidney Disease Statistics for the United States [<https://www.niddk.nih.gov/health-information/health-statistics/kidney-disease>]  (National Institute of Diabetes and Digestive and Kidney Diseases)

Clinical Trials

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

Journal Articles

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


- Article: Lacticaseibacillus rhamnosus attenuates uremic toxins in patients with nondialysis chronic kidney... [<https://www.ncbi.nlm.nih.gov/pubmed/40744977>]
- Article: Impact of clinical pharmacy services on medication adherence and quality of... [<https://www.ncbi.nlm.nih.gov/pubmed/40615962>]

Article: Effect of oral sodium bicarbonate supplementation on urine TGF- β in normal...



[<https://www.ncbi.nlm.nih.gov/pubmed/40594210>]

- Chronic Kidney Disease -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Renal+Insufficiency%2C+Chronic%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bedat%5D+AND+%28patient+education+handout%5Bpt%5D+OR+guideline%5Bpt%5D+OR+clinical+trial%5Bpt%5D%29++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

- Kidneys and Urinary Tract (For Parents) [<https://kidshealth.org/en/parents/kidneys-urinary.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/kidneys-urinary.html>]
- Your Kidneys and How They Work [<https://www.niddk.nih.gov/health-information/kidney-disease/kidneys-how-they-work>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/rinones-funcionamiento>]

Find an Expert

- National Institute of Diabetes and Digestive and Kidney Diseases [<https://www.niddk.nih.gov>] 
- National Kidney Disease Education Program [<https://www.niddk.nih.gov/health-information/community-health-outreach/information-clearinghouses/nkdep>] 
- National Kidney Foundation [<https://www.kidney.org/>]

Children

- Chronic Kidney Disease: Caring for Your Child [<https://kidshealth.org/en/parents/chronic-kidney-care.html>]
(Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/chronic-kidney-care.html>]
- Growth Failure in Children with Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/children/helping-child-adapt-life-chronic-kidney-disease/growth-failure-chronic-kidney-disease>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
- Nutrition for Children with Chronic Kidney Disease [<https://www.niddk.nih.gov/health-information/kidney-disease/children/helping-child-adapt-life-chronic-kidney-disease/nutrition-chronic-kidney-disease>]  (National Kidney and Urologic Diseases Information Clearinghouse)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/ninos/nutricion-ninos-enfermedad-renal-cronica>]

Women

- Pregnancy and Kidney Disease [<https://www.kidney.org/kidney-topics/pregnancy-and-kidney-disease>]
(National Kidney Foundation)

Patient Handouts

- ACE inhibitors [<https://medlineplus.gov/ency/patientinstructions/000087.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000087.htm>]
- Chronic kidney disease [<https://medlineplus.gov/ency/article/000471.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000471.htm>]



MEDICAL ENCYCLOPEDIA

ACE inhibitors [<https://medlineplus.gov/ency/patientinstructions/000087.htm>]

Chronic kidney disease [<https://medlineplus.gov/ency/article/000471.htm>]

Diet - chronic kidney disease [<https://medlineplus.gov/ency/article/002442.htm>]

Renal perfusion scintiscan [<https://medlineplus.gov/ency/article/003831.htm>]

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

Related Health Topics

Dialysis [<https://medlineplus.gov/dialysis.html>]

Kidney Diseases [<https://medlineplus.gov/kidneydiseases.html>]

Kidney Failure [<https://medlineplus.gov/kidneyfailure.html>]

Kidney Tests [<https://medlineplus.gov/kidneytests.html>]

National Institutes of Health

The primary NIH organization for research on *Chronic Kidney Disease* is the National Institute of Diabetes and Digestive and Kidney Diseases [<https://www.niddk.nih.gov>]

Other Languages

Find health information in languages other than English [<https://medlineplus.gov/languages/chronickidneydisease.html>] on *Chronic Kidney Disease*

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