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Kidney Tests

Also called: Kidney Function Panel, Kidney Function Tests, Kidney Panel, Renal Function Panel

You have two kidneys. They are fist-sized organs on either side of your backbone above your waist. Your kidneys filter and clean your blood, taking out waste products and making urine. Kidney tests check to see how well your kidneys are working. They include blood, urine [<https://medlineplus.gov/urinalysis.html>] , and imaging [<https://medlineplus.gov/diagnosticimaging.html>] tests.

Early kidney disease [<https://medlineplus.gov/kidneydiseases.html>] usually does not have signs or symptoms. Testing is the only way to know how your kidneys are doing. It is important for you to get checked for kidney disease if you have the key risk factors - diabetes, high blood pressure, heart disease, or a family history of kidney failure.

Specific kidney tests include:

- Glomerular filtration rate (GFR) [<https://medlineplus.gov/lab-tests/glomerular-filtration-rate-gfr-test/>] - one of the most common blood tests to check for chronic kidney disease [<https://medlineplus.gov/chronickidneydisease.html>] . It tells how well your kidneys are filtering.
- Creatinine blood and urine tests [<https://medlineplus.gov/lab-tests/creatinine-test/>] - check the levels of creatinine, a waste product that your kidneys remove from your blood
- Albumin urine test - checks for albumin, a protein that can pass into the urine if the kidneys are damaged
- Imaging tests, such as an ultrasound [<https://medlineplus.gov/lab-tests/sonogram/>] - provide pictures of the kidneys. The pictures help the health care provider see the size and shape of the kidneys, and check for anything unusual.
- Kidney biopsy [<https://medlineplus.gov/biopsy.html>] - a procedure that involves taking a small piece of kidney tissue for examination with a microscope. It checks for the cause of kidney disease and how damaged your kidneys are.

NIH: National Institute of Diabetes and Digestive and Kidney Diseases

Start Here

- Chronic Kidney Disease Tests and Diagnosis [<https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/tests-diagnosis>]  (National Kidney Disease Education Program)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-rinones/informacion-general/diagnostico>]
- Testing for Chronic Kidney Disease [<https://www.cdc.gov/kidney-disease/testing/>] (Centers for Disease Control and Prevention)
- Tests for Kidney Disease [<https://www.kidneyfund.org/all-about-kidneys/tests-kidney-disease>] (American Kidney Fund)
Also in Spanish [<https://www.kidneyfund.org/es/todo-sobre-los-rinones/las-pruebas-de-deteccion-de-la-enfermedad-renal>]

Specifics

- Abdominal Ultrasound [<https://www.radiologyinfo.org/en/info/abdominus>]
 (American College of Radiology; Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/es/info/abdominus>]
- Albumin Blood Test [<https://medlineplus.gov/lab-tests/albumin-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-albumina-en-la-sangre/>]

- Basic Metabolic Panel (BMP) [<https://medlineplus.gov/lab-tests/basic-metabolic-panel-bmp/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/panel-metabolico-basico/>]
- BUN (Blood Urea Nitrogen) [<https://medlineplus.gov/lab-tests/bun-blood-urea-nitrogen/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/examen-de-nitrogeno-ureico-en-sangre-nus/>]
- Calcium Blood Test [<https://medlineplus.gov/lab-tests/calcium-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-calcio-en-la-sangre/>]
- Calcium in Urine Test [<https://medlineplus.gov/lab-tests/calcium-in-urine-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-calcio-en-orina/>]
- Chloride Blood Test [<https://medlineplus.gov/lab-tests/chloride-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-cloruro-en-sangre/>]
- Comprehensive Metabolic Panel (CMP) [<https://medlineplus.gov/lab-tests/comprehensive-metabolic-panel-cmp/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/panel-metabolico-completo-pmc/>]
- 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/>]
- Cystoscopy and Ureteroscopy [<https://www.niddk.nih.gov/health-information/diagnostic-tests/cystoscopy-ureteroscopy>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/pruebas-diagnosticas/cistoscopia-ureteroscopia>]
- Fasting for a Blood Test [<https://medlineplus.gov/lab-tests/fasting-for-a-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/ayunar-para-una-prueba-de-sangre/>]
- Glomerular Filtration Rate (GFR) Test [<https://medlineplus.gov/lab-tests/glomerular-filtration-rate-gfr-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-tasa-de-filtracion-glomerular-tfg/>]
- Intravenous Pyelogram (IVP) [<https://medlineplus.gov/lab-tests/intravenous-pyelogram-ivp/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/pielografia-intravenosa-pm/>]
- Kidney Biopsy [<https://www.niddk.nih.gov/health-information/diagnostic-tests/kidney-biopsy>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
- Kidney Stone Analysis [<https://medlineplus.gov/lab-tests/kidney-stone-analysis/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/analisis-de-calculos-renales/>]
- Magnesium Blood Test [<https://medlineplus.gov/lab-tests/magnesium-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-magnesio-en-la-sangre/>]
- Phosphate in Blood [<https://medlineplus.gov/lab-tests/phosphate-in-blood/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-fosfato-en-la-sangre/>]
- Phosphate in Urine [<https://medlineplus.gov/lab-tests/phosphate-in-urine/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-fosfato-en-la-orina/>]
- Protein Electrophoresis by Immunofixation Blood Test [<https://medlineplus.gov/lab-tests/immunofixation-ifc-blood-test/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/electroforesis-de-proteinas-por-immunofijacion-en-sangre/>]
- Total Protein and Albumin/Globulin (A/G) Ratio [<https://medlineplus.gov/lab-tests/total-protein-and-albumin-globulin-a-g-ratio/>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/proteinas-totales-y-relacion-albumina-globulina-a-g/>]
- Urinalysis: MedlinePlus Health Topic [<https://medlineplus.gov/urinalysis.html>]  (National Library of Medicine)
Also in Spanish [<https://medlineplus.gov/spanish/urinalysis.html>]

Clinical Trials

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

Journal Articles

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

- Article: Diabetic kidney disease phenotypes and the risk of cardiovascular events: The...
[<https://www.ncbi.nlm.nih.gov/pubmed/40739504>]
 - Article: Prognostic Value of Blood Urea Nitrogen to Albumin Ratio in Elderly...
[<https://www.ncbi.nlm.nih.gov/pubmed/40731862>]
 - Article: The Impact of a 10-Month Synbiotic Intake on eGFR, Uremic Toxins,...
[<https://www.ncbi.nlm.nih.gov/pubmed/40731829>]
 - Kidney Tests -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Kidney+Function+Tests%22%5Bmajr%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+2+Years%22+%5Bdat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29>]

Patient Handouts

- 24-hour urine protein [<https://medlineplus.gov/ency/article/003622.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003622.htm>]
 - Acid loading test (pH) [<https://medlineplus.gov/ency/article/003615.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003615.htm>]
 - Albumin blood (serum) test [<https://medlineplus.gov/ency/article/003480.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003480.htm>]
 - BUN - blood test [<https://medlineplus.gov/ency/article/003474.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003474.htm>]
 - Glomerular filtration rate [<https://medlineplus.gov/ency/article/007305.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/007305.htm>]
 - Kidney biopsy [<https://medlineplus.gov/ency/article/003907.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003907.htm>]
 - Microalbuminuria test [<https://medlineplus.gov/ency/article/003591.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003591.htm>]
 - Total protein [<https://medlineplus.gov/ency/article/003483.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003483.htm>]
 - Urine protein dipstick test [<https://medlineplus.gov/ency/article/003580.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003580.htm>]



MEDICAL ENCYCLOPEDIA

24-hour urine protein [https://medlineplus.gov/ency/article/003622.htm]

Abdominal CT scan [<https://medlineplus.gov/ency/article/003789.htm>]

Abdominal MRI scan [<https://medlineplus.gov/ency/article/003796.htm>]

Abdominal tap [<https://medlineplus.gov/ency/article/003896.htm>]

Acid loading test (pH) [<https://medlineplus.gov/ency/article/003615.htm>]

Albumin blood (serum) test [<https://medlineplus.gov/ency/article/003480.htm>]

Amylase - urine [<https://medlineplus.gov/ency/article/003607.htm>]

Anti-glomerular basement membrane blood test [<https://medlineplus.gov/ency/article/003524.htm>]

Basic metabolic panel [<https://medlineplus.gov/ency/article/003462.htm>]

BUN - blood test [<https://medlineplus.gov/ency/article/003474.htm>]

Calcium - ionized [<https://medlineplus.gov/ency/article/003486.htm>]

Calcium - urine [<https://medlineplus.gov/ency/article/003603.htm>]

Calcium blood test [<https://medlineplus.gov/ency/article/003477.htm>]

Chloride - urine test [<https://medlineplus.gov/ency/article/003601.htm>]

Citric acid urine test [<https://medlineplus.gov/ency/article/003618.htm>]

CO2 blood test [<https://medlineplus.gov/ency/article/003469.htm>]

Fractional excretion of sodium [<https://medlineplus.gov/ency/article/003602.htm>]

Glomerular filtration rate [<https://medlineplus.gov/ency/article/007305.htm>]

Hemoglobinuria test [<https://medlineplus.gov/ency/article/003363.htm>]

Immunoelectrophoresis - urine [<https://medlineplus.gov/ency/article/003592.htm>]

Intravenous pyelogram [<https://medlineplus.gov/ency/article/003782.htm>]

Kidney biopsy [<https://medlineplus.gov/ency/article/003907.htm>]

Microalbuminuria test [<https://medlineplus.gov/ency/article/003591.htm>]

Phosphorus blood test [<https://medlineplus.gov/ency/article/003478.htm>]

Potassium urine test [<https://medlineplus.gov/ency/article/003600.htm>]

Protein electrophoresis - serum [<https://medlineplus.gov/ency/article/003540.htm>]

RBC urine test [<https://medlineplus.gov/ency/article/003582.htm>]

Renal arteriography [<https://medlineplus.gov/ency/article/003781.htm>]

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

Renal scan [<https://medlineplus.gov/ency/article/003790.htm>]

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

Sodium urine test [<https://medlineplus.gov/ency/article/003599.htm>]

TBG blood test [<https://medlineplus.gov/ency/article/003374.htm>]

Total protein [<https://medlineplus.gov/ency/article/003483.htm>]

Urea nitrogen urine test [<https://medlineplus.gov/ency/article/003605.htm>]

Uric acid - blood [<https://medlineplus.gov/ency/article/003476.htm>]

Urinary casts [<https://medlineplus.gov/ency/article/003586.htm>]

Urine 24-hour volume [<https://medlineplus.gov/ency/article/003425.htm>]

Urine protein dipstick test [<https://medlineplus.gov/ency/article/003580.htm>]

Urine protein electrophoresis test [<https://medlineplus.gov/ency/article/003589.htm>]

Related Health Topics

Kidney Cancer [<https://medlineplus.gov/kidneycancer.html>]

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

National Institutes of Health

The primary NIH organization for research on *Kidney Tests* 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/kidneytests.html>] on *Kidney Tests*

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