Renal Cysts



Renal cysts are sacs of fluid that form in the kidneys. They are usually characterized as "simple" cysts, meaning they have a thin wall and contain water-like fluid. Renal cysts become fairly common as people age and usually do not cause symptoms or harm.

Because they rarely cause symptoms, renal cysts are most often found during imaging tests performed for other reasons. Some renal cysts may appear more complex and have a thicker wall or contain solid material instead of fluid. Your doctor will likely perform additional imaging tests to monitor complex renal cysts and distinguish benign cysts from cancer. These tests may include abdominal or pelvic ultrasound, abdominal and pelvic CT, or body MRI. Renal cysts are usually left alone and do not require treatment unless they are causing symptoms or harming kidney function. If treatment is required, your doctor may use sclerotherapy or surgery to drain the cyst and take steps to prevent its recurrence.

What are renal cysts?

Renal cysts are sacs of fluid that form in the kidneys (http://www.radiologyinfo.org) . Most of the time, they are simple kidney cysts, meaning they have a thin wall and only water-like fluid inside. They are fairly common in older people and typically do not cause any symptoms or harm.

In rare cases, renal cysts may require treatment due to infection, bleeding, or enlargement. When such renal cyst complications occur, symptoms may include:

- Fever
- Pain or tenderness between the ribs and pelvis
- Upper abdominal pain
- Changes in urinary habits
- Blood in the urine (Hematuria (https://www.radiologyinfo.org/en/info/hematuria))

The cause of renal cysts is not known, although age is a major risk factor. An estimated one-third of people older than age 70 have at least one simple renal cyst. It can be normal to have more than one simple cyst in each kidney, especially with increasing age.

Having a few simple renal cysts is different from having many cysts in the kidneys because of polycystic renal disease (PKD). PKD is a genetic disorder characterized by clusters of cysts that can impair kidney function.

How are renal cysts diagnosed and evaluated?

Since they rarely cause symptoms, renal cysts are most often found during imaging tests performed for other reasons. In such cases without any symptoms, simple renal cysts are usually left alone and do not need any further tests. However, some renal cysts look more complex than the usual simple renal cyst. These complex renal cysts can have a thicker wall, or solid material inside instead of just fluid. Once complex renal cysts are discovered, additional imaging tests may be performed to monitor them and distinguish benign (http://www.radiologyinfo.org) cysts from cancer.

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Some types of imaging tests your doctor might order include:

Abdominal Ultrasound (https://www.radiologyinfo.org/en/info/abdominus) and Pelvic Ultrasound (https://www.radiologyinfo.org/en/info/pelvus) *:* These exams are performed to take pictures of the kidneys and confirm the presence of fluid inside the renal cysts. Your doctor may use ultrasound imaging to monitor renal cysts for any changes over time.

For more information about ultrasound performed on children, visit the Pediatric Abdominal Ultrasound (https://www.radiologyinfo.org/en/info/abdomus-pdi) page.

Abdominal and Pelvic CT (https://www.radiologyinfo.org/en/info/abdominct) *:* Often used as a complement to ultrasound in the study of complex renal cysts, this procedure can help distinguish benign cysts from tumors in the kidneys. A CT scan may include an injection of contrast material (http://www.radiologyinfo.org) . *See the Radiation Dose (https://www.radiologyinfo.org/en/info/safety-xray) page for more information about CT procedures.*

For more information about CT performed on children, visit the Pediatric CT (https://www.radiologyinfo.org/en/info/pedia-ct) page.

Body Magnetic Resonance Imaging (MRI) (https://www.radiologyinfo.org/en/info/bodymr) : This imaging test uses a magnetic field and radio frequency pulses to produce detailed pictures of the kidneys. An MRI may include an injection of contrast material. *See the MRI Safety (https://www.radiologyinfo.org/en/info/safety-mr) page for more information about MRI procedures.*

How are renal cysts treated?

Renal cysts generally do not require treatment unless they are causing symptoms or harming kidney function. Treatment options include:

- Sclerotherapy (https://www.radiologyinfo.org/en/info/sclerotherapy) *:* Also known as percutaneous alcohol ablation, sclerotherapy involves the insertion of a long needle through the skin and into the cyst under ultrasound guidance. The doctor will drain the cyst and fill it with an alcohol-based solution that causes the tissue to harden and shrink, reducing the chance of recurrence. The procedure is usually performed on an outpatient basis with a local anesthetic (http://www.radiologyinfo.org) .
- Surgery: For larger cysts, a surgeon will make a small incision and access the cyst with a laparoscope (http://www.radiologyinfo.org) . The surgeon will then drain the cyst and burn or cut away its outer layer. Laparoscopic surgery requires general anesthesia (http://www.radiologyinfo.org) .

Which test, procedure or treatment is best for me?

- *Indeterminate Renal Mass (https://www.radiologyinfo.org/en/info/acs-indeterminate-renal-mass)*

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