Acute Kidney Failure

What is acute kidney failure?

Acute kidney (renal) failure is the sudden shutdown of your kidneys. This problem is also called acute renal failure or acute renal insufficiency.

Your kidneys are located on each side of your spine above your waist. They make urine by filtering waste products from your blood, control the balance of salt and water in your body, and help regulate your blood pressure. As long as you have at least one kidney that is working, your body can get by.

When you have kidney failure, the kidneys are no longer able to make urine, rid your body of wastes, or keep a healthy balance of chemicals such as sodium and potassium.

How does it occur?

Tiny blood vessels in the kidneys filter the blood that flows through them. The kidneys need good blood flow to work properly. Acute kidney failure can happen when the kidneys are not getting enough blood flow. It can also happen when they are injured by disease, drugs, or poisons.

People who have been badly burned, have had a heart attack, have lost a lot of blood, are dehydrated, or are very ill may go into shock. Shock decreases blood flow to the kidneys and may injure them.

Problems in the kidneys that can cause failure are:

- kidney stones
- cysts
- tumors
- infection
- nephritis (inflammation of one or both kidneys)
- injury from drugs, solvents, insecticides, or other poisons.

Sometimes blockage of urine flow causes or contributes to acute kidney failure. This can happen, for example, when the prostate gland is enlarged.

What are the symptoms?

Symptoms of acute kidney failure may include:

- confusion
- drowsiness and fatigue
- itchy skin or skin darkening
- loss of appetite
- muscle cramps or weakness
- nausea and vomiting
- urinating less
- seizures
- swelling of feet and ankles
- skin or breath that smells like urine.
How is it diagnosed?

Your healthcare provider will ask about your symptoms and examine you. You will have urine and blood tests to see how well your kidneys are working. A catheter (tube) may be placed in your bladder to keep track of the amount of urine being made.

Your healthcare provider will look for the cause of the kidney failure. You may have special X-rays and ultrasound scans to show the size of your kidneys and to look for blockages. You may need to have a biopsy, a test in which tissue or cell samples are taken from the kidney and examined.

How is it treated?

Your kidneys may work normally again when the cause is treated. However, if your kidneys do not begin to function soon, you may need kidney dialysis.

Whether dialysis is used depends on:

- why your kidneys stopped working
- your other health conditions
- your overall health.

For many people, dialysis can extend life, and improve quality of life. For others whose condition is extreme, dialysis may seem a burden that only prolongs suffering. Discuss this with your healthcare provider.

Dialysis is a mechanical way to do the work your kidneys normally do. It removes waste products and extra water from the blood and can be life-saving. After several weeks the kidneys may begin to function again and dialysis can be stopped. Sometimes chronic (long-lasting) kidney failure develops, which could require long-term dialysis or a kidney transplant.

You may need to change your diet. Follow your healthcare provider's guidelines for the amount of salt in your diet. Also, the amounts of liquids you drink must be balanced against how much you urinate. You may need to have less protein to prevent further damage to your kidneys. You may also need to limit the potassium in your diet because it may be hard for your body to get rid of extra potassium. (Too much potassium can cause heart rhythm problems.) With the right diet, you can reduce the work your kidneys must do.

How long will the effects last?

The kidneys usually start working normally again when the condition causing the kidney failure is treated. Acute kidney failure can last for days or weeks. It may take the kidneys many months to regain full function. There is a risk your kidneys could be permanently damaged.

In some cases acute kidney failure can lead to chronic kidney failure or even death.

How can I take care of myself?

- Carefully follow your healthcare provider's instructions for treating your kidney failure.
- Follow your provider's instructions for balancing your fluids through the day.
- Make changes in your diet as recommended by your healthcare provider. Ask your provider for written diet instructions or for a referral to a dietitian.

For more information, contact The National Kidney Foundation. The toll-free number is 1-800-622-9010. The Web site address is http://www.kidney.org.

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