

# Acute renal failure

Acute renal failure (ARF), is a rapid loss of kidney function. Its causes are numerous and include low blood volume from any cause, exposure to substances harmful to the kidney, and obstruction of the urinary tract.

## Symptoms

- Accumulation of urea and other nitrogen-containing substances in the bloodstream lead to a number of symptoms, such as fatigue, loss of appetite, headache, nausea and vomiting.
- Increases in the potassium level can lead to irregularities in the heartbeat can be life threatening.
- Inability to excrete sufficient fluid from the body can cause accumulation of fluid in the limbs (Peripheral Edema) and the lungs (pulmonary edema)
- Pain and Thirst

Classified into 3 general categories, as follows:

- Prerenal - as an adaptive response to severe volume depletion and hypotension, with structurally intact nephrons.
- Intrinsic - in response to cytotoxic, ischemic, or inflammatory insults to the kidney, with structural and functional damage.
- Postrenal - from obstruction to the passage of urine.

## Diagnosis

- Decrease in urine output.
- Blood tests for substances normally eliminated by the kidney: urea and creatinine. Also sodium and potassium level.
- Urine sediment analysis, renal ultrasound and/or kidney biopsy.

## Treatment

- Urinary catheter helps monitor urine output and relieves possible bladder outlet obstruction, such as with an enlarged prostate.
- Diuretics such as furosemide.
- Hemodialysis

## Complications

Metabolic acidosis, hyperkalemia, and pulmonary edema (may require medical treatment with sodium bicarbonate, antihyperkalemic measures, and diuretics)

## Prognosis

Depending on the cause, a proportion of patients will never regain full renal function, thus having end-stage renal failure requiring lifelong dialysis or a kidney transplant.

## Links

### Related Articles

### Bibliography

### References

KUMAR, - CLARK,. *Clinical Medicine*. 8. edition. 2012. ISBN 9780702044991.