

Artificial kidney

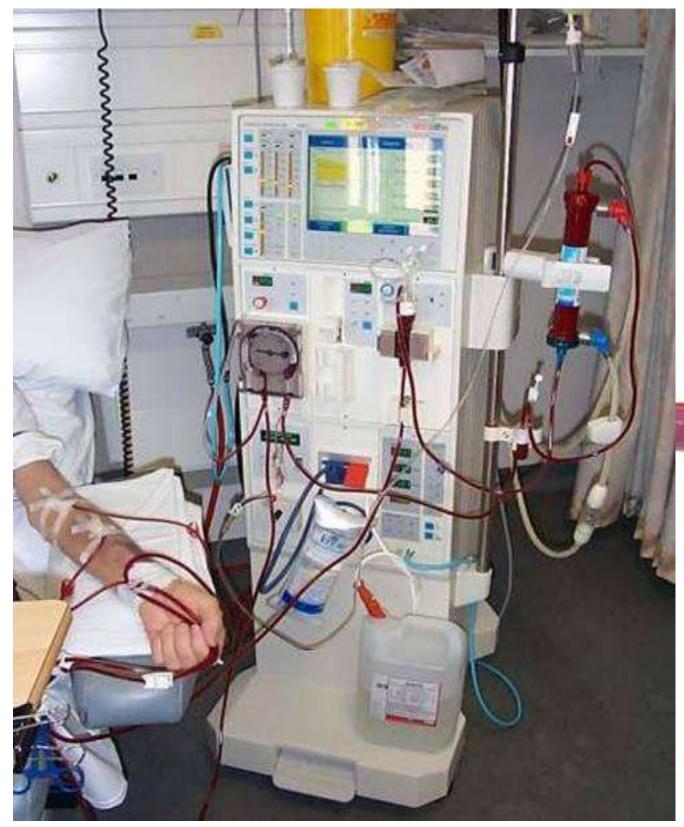


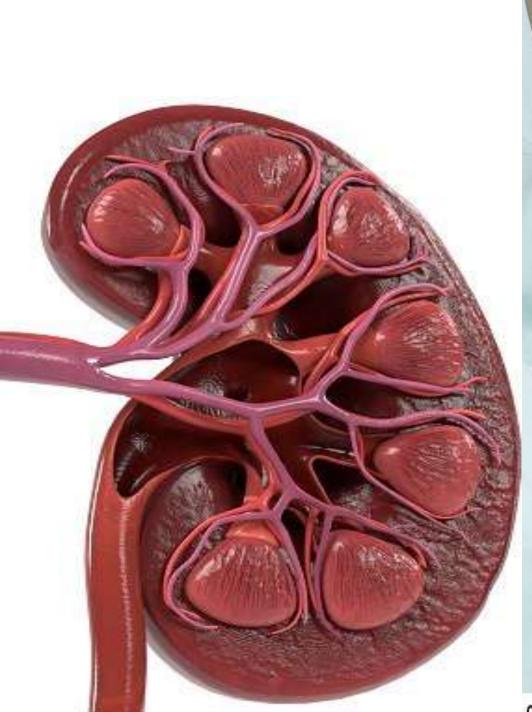


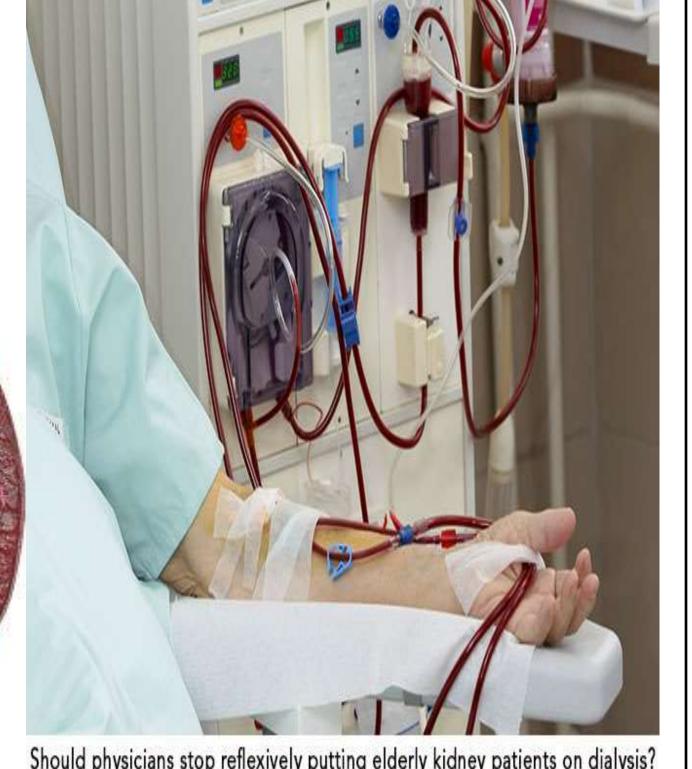
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Introduction

The kidneys filter your blood by removing waste and excess fluid from your body. So when the kidney is not able to maintain its function it's called kidney failure and unfortunately when the treatments fail the end stage of kidney failure require dialysis





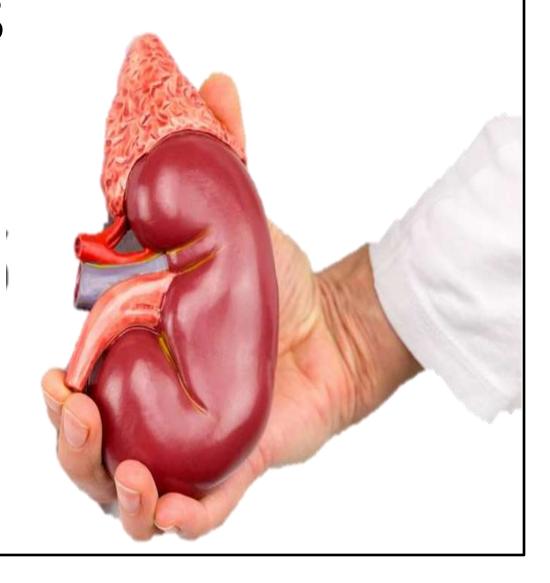


How dialysis work

The dialysis machine is made up of a series of membranes that act as filters and a special liquid called dialysate. The membranes filter waste products from your blood, which are passed into the dialysate fluid.

Causes

- 1. diabetic nephropathy
- 2. Acid-base problems
- 3. Electrolyte problems
- 4. Intoxications
- 5. Uremic symptoms
- 6. Overload, fluid



Advantage and disadvantage

(Advantage):

- 1-No equipment to store at home
- 2-Effective removal of waste products
- 3-Treatment usually occurs only three times a week

(Disadvantage):

- 1-Vascular access surgery required
- 2-Use of large needles
- 3-Risk of bacteremia (with tunneled catheter)

Conclusion

The kidneys perform many crucial functions maintaining overall fluid balance, regulating, filtering toxic and regulate blood pressure and when occur a problem that causes the kidney to fail; dialysis must be done otherwise Mortality rates vary depending on the kidney failure treatment.

Reference

https://www.ncbi.nlm.nih.gov/books/NBK563296/