ANPH 252:
Urinary MISC Pathology2

Miscellaneous Pathology

- Renal hypertension
- Acute Renal Failure
- Chronic Renal Failure

Renal hypertension

- High blood pressure that is caused by the hormonal response to narrowing of arteries that supply the kidneys
- Normally kidneys maintain blood pressure by regulating the extracellular fluid compartment via control of the plasma sodium concentration
- Due to the low blood flow into the kidneys because of narrowing, the kidneys respond by increasing the blood pressure of the entire circulatory system
- Caused by renal artery stenosis
- Symptoms include HBP, kidney dysfunction, pulmonary edema, arterial sclerosis/ narrowing in other parts of the body

Renal Failure

- Acute failure is a rapidly progressive loss of renal function. Caused by sudden changes affecting blood pressure or glomerular filtration, LBP, urinary tract blockage. The underlying cause, once identified and treated should stop the progression of the ARF.

- Chronic failure is caused by loss of nephrons over time due to: polycystic kidney disease, diabetes, HBP. May develop slowly, without symptoms at first, then progress into irreversible failure.

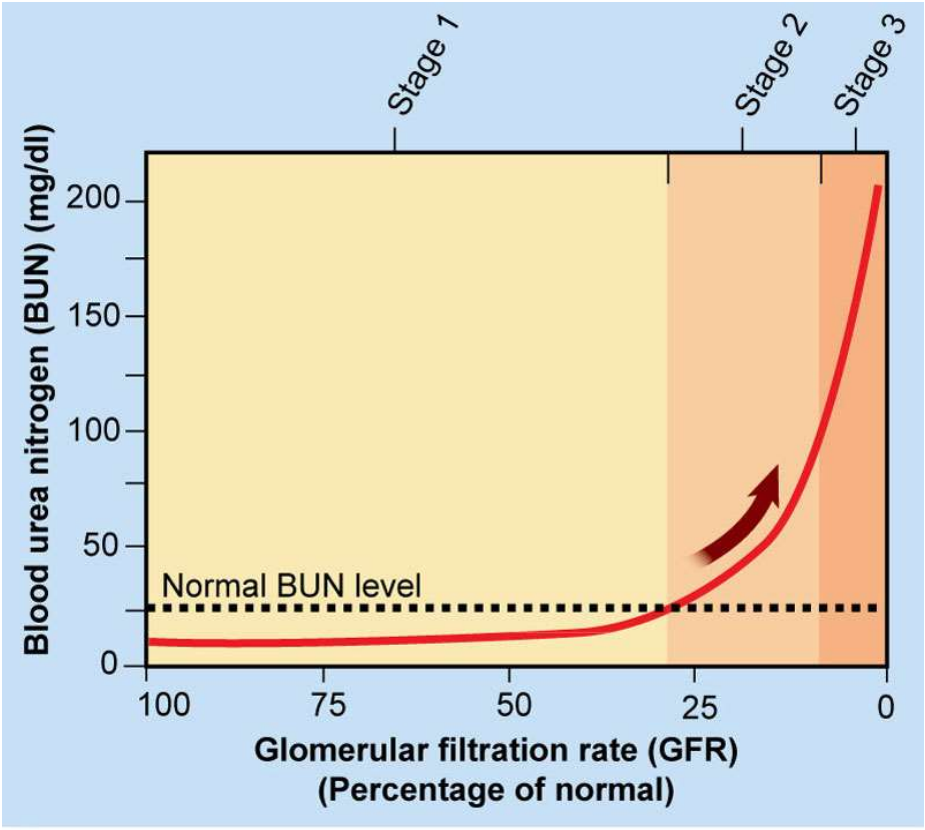
Renal Failure

3 stages to chronic renal failure

1. Some nephrons are lost but remaining ones compensate. This stage may last years.

2. Renal insufficiency - Remaining nephrons cannot handle the workload and urine production is compromised. Polyuria and dehydration occur.

3. Chronic kidney failure with associated uremia. Very high BUN and low GFR. Fluids are retained in the body causing edema and hypertension. Requires kidney transplant or dialysis



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Fig. 20-16 -Patton and Thibodeau