

# “Kidney Health”

Deaf Health Talks  
September 22, 2010

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# Supporters

- Deaf Health Community Committee Members
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- Rochester Recreation Club for the Deaf (“REAP”)



# Overview

- What do kidneys do for us?
- What are common causes for kidney failure?
- What are common causes for kidney stones?
- How can we protect our kidneys?



# Quiz

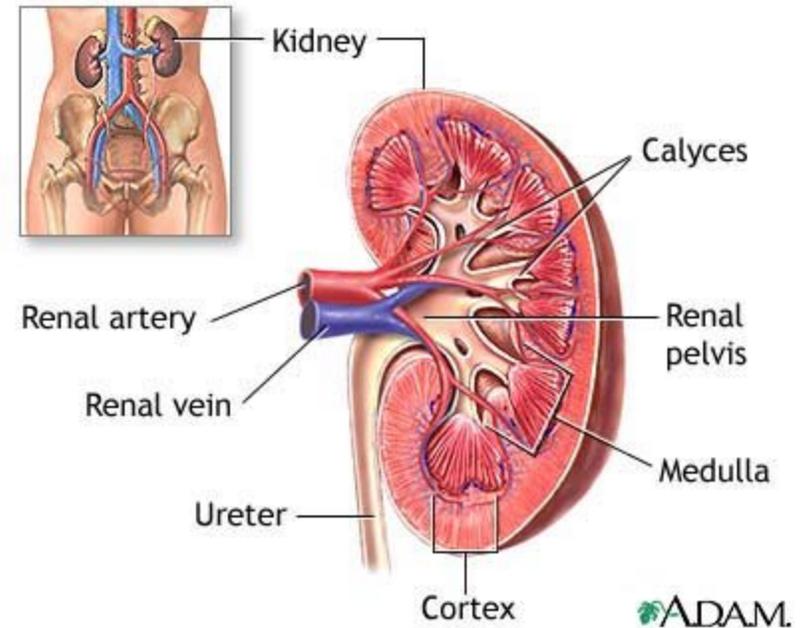
- How many kidneys does the average person have?
  - 2 kidneys



# Kidney Function

Kidneys do the following:

- Clean waste from the body (filters)
- Remove drugs from the body
- Balance the body's fluids
- Makes hormones that regulate blood pressure
- Makes an active form of vitamin D that promotes healthy bones
- Controls the production of red blood cells

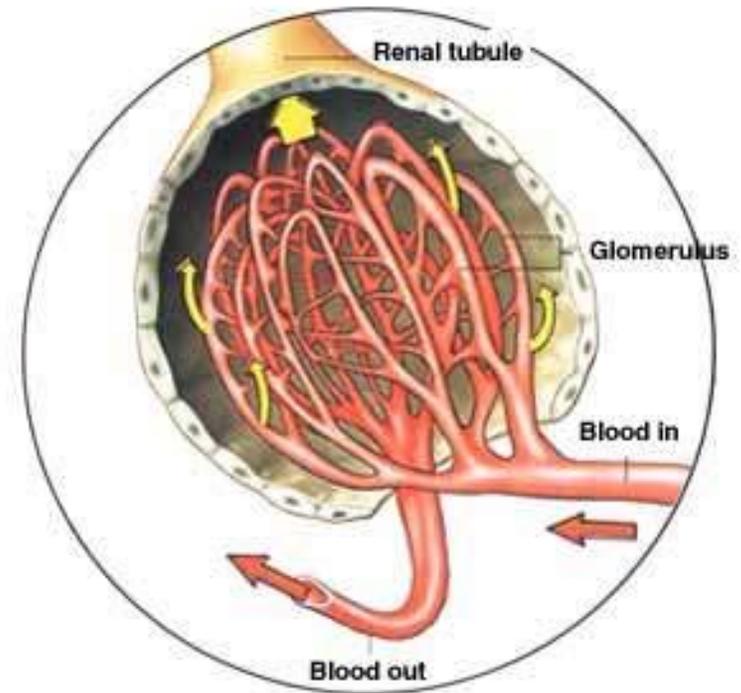


<http://www.babble.com/CS/blogs/strollerderby/kidney-713543.jpg>



# Body Filters

- Each kidney has 1 million filtering units called nephrons
  - Blood → Nephron → Filters in Glomerulus → Excess Waste and Fluids Goes Out into Tubule



<http://www.life-enhancement.com/images/005glomerulus.jpg>



# Quiz

- How many gallons of fluids does a pair of kidneys filter in 1 day?
  - 50 gallons!



# Causes of Kidney Failure

- #1 cause- Diabetes
- #2 cause- High Blood Pressure

Other common causes:

- Drugs
- Autoimmune (e.g. lupus)
- Genes (e.g. polycystic kidney disease)



# Quiz

- Which drug can affect your kidneys more: Tylenol (acetaminophen) or Advil (ibuprofen)?
  - Advil (can affect kidneys more)
  - Tylenol (can affect liver more)



# Drugs that can harm kidneys

- Depends on the amount you take and how long you take them for
- Non-steroidal anti-inflammatory drugs (NSAIDs)
  - Aspirin (e.g. Bayer)
  - Ibuprofen (e.g. Motrin or Advil)
  - Naproxen (e.g. Alleve)
- Diuretics
  - Furosemide (e.g. Lasix)
  - Hydrochlorothiazide



# Drugs that can harm kidneys

- Make sure your doctor knows what and how much you take
- Interactions can worsen damage to your kidneys
- Do not exceed maximum dosage amounts listed on the medication label
- Those with damaged kidneys may need to take smaller amounts of certain medications (e.g. antibiotics)



# Risk Factors for Kidney Failure

- Older age
- Diabetics
- High blood pressure
- Family history of kidney failure
- African-American



# Prevention Strategies

- Get your blood pressure and your sugar tested!
  - Early detection and good control can reduce your risk for kidney failure
  - Most early stages of kidney damage have no symptoms
- Learn about your family history for any risk factors
- Drink plenty of fluids
- Get plenty of exercise and healthy foods



# Detection of Kidney Disease

- Blood pressure check
- Urine test for protein (microalbumin)
- Blood test for creatinine



<http://www.spartanburgregional.com/RegionalHospice/PublishingImages/hospice%20doctor-patient.jpg>



# Treatment of Kidney Disease

- Tight blood pressure control (goal is ~120/80)
- Control diabetes if have this
- For kidney failure → dialysis may be needed once you lose 90% or more of your kidney function
  - Goal is to avoid dialysis!
    - Expensive (\$30,000 per year)
    - Risky (20% of people on dialysis die every year)



# What is a kidney stone?

- A stone that develops from crystals that are in the urine (e.g. calcium)



<http://www.dailymail.co.uk/news/worldnews/article-1124329/Pictured-The-2-5lb-kidney-stone-size-coconut-surgeons-removed-mans-stomach.html>



# Quiz- True or False

- All kidney stones are painful?
  - False, not all stones are painful. It may depend on size or shape of the stone.
  - Ouch! Largest Kidney Stone came from a man in Hungary- the stone weighed 2 ½ pounds!



# Kidney Stones Symptoms

- Sudden fluctuating abdominal pain
- Blood in urine
- Kidney Infection (from blocked urine flow)



# Types of Kidney Stones

- Calcium- most common type
  - Can be different mixtures (oxalate or urate)
- Struvite
- Uric Acid
- Cystine



# Quiz

- What is the best thing you can do to prevent all kidney stones from happening?
  - Drink plenty of water and other fluids. Drink at least 8 glasses of fluids daily.



# Prevention of Calcium Stones

- Cut back on salt in foods
  - Reduces available calcium that goes into urine
  - Goal is 2000 mg of sodium (e.g. salt) daily
- If you eat a lot of meat, cut back (excess protein increases calcium in the urine)



## Quiz

- Does milk increase your risk for kidney stones?
  - Milk does not cause kidney stones!



# Calcium Oxalate Stones

- Cut back on oxalate foods
  - peanuts, tea, instant coffee, rhubarb, beets, beans, beets, berries, chocolate, dark leafy greens, oranges, tofu, sweet potatoes and draft beer

\*Lemonade can help reduce stones (citric acid)



# Treatment of Stones

- Most will pass on own (not fun!)
  - Doctors will encourage fluids and pain medications
- Larger stones may require either:
  - Lithotripsy
  - Surgery
- Some doctors will give medications to help prevent stones from coming back



# Questions???

- Thank you!
- Next Deaf Health Talk October 21 at 7 pm
- Rochester Recreation Club for the Deaf



# References

- [http://my.clevelandclinic.org/disorders/kidney\\_stones/np\\_overview.aspx](http://my.clevelandclinic.org/disorders/kidney_stones/np_overview.aspx) (Cleveland Clinic)
- <http://www.kidney.org/kidneydisease/howkidneyswrk.cfm> (National Kidney Foundation)
- <http://www.dailymail.co.uk/news/worldnews/article-1124329/Pictured-The-2-5lb-kidney-stone-size-coconut-surgeons-removed-mans-stomach.html>

