

# Kidney Disease Education

Renal Preservation and Co-morbidities

Education #2

## Can my kidney disease be cured?

- Unfortunately, CKD can **NOT** be cured
- Steps can be taken to minimize the risks for heart attack and strokes
- CKD patients are susceptible to these problems
- The main goal is to preserve what kidney function you have at this point



# Ways CKD can affect your body

- Heart and blood vessel problems
  - High blood pressure, abnormal cholesterol, heart attack, and stroke
- Anemia
- Mineral and bone disorder
- Malnutrition
- Progression to kidney failure
- Depression

# Diabetes

- Diabetes is the single leading cause of kidney failure in the U.S.
- It accounts for 44% of people who are being treated for CKD



Flickr: duisburgbunny



- When blood sugars are not controlled, the small vessels of the kidneys are affected, causing destruction of the filters of the kidneys
- It is important to closely control your blood sugars
  - Fasting glucose 90-130**
  - Hemoglobin A<sub>1</sub>C less than 7**
- Follow up with your diabetic doctor regularly
- Good glucose control can help slow the worsening of kidney disease

# Hypertension



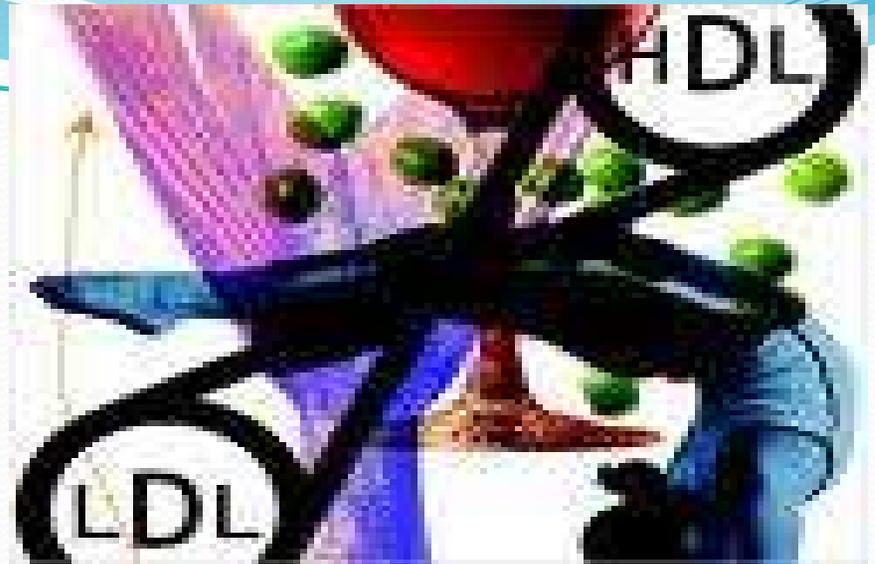
- High blood pressure damages the blood vessels in the kidneys and reduces the blood supply to the kidneys
- Goal blood pressure:  
< **140/90**-if younger than 60 years or have diabetes.  
< **150/90**-if older than 60 years
- Controlling your blood pressure helps to keep your kidneys healthy



- AVOID SALT!!
- Stop smoking
- Lose weight if you are overweight
- Manage stress
- Take ACE/ARB as directed



# Cholesterol

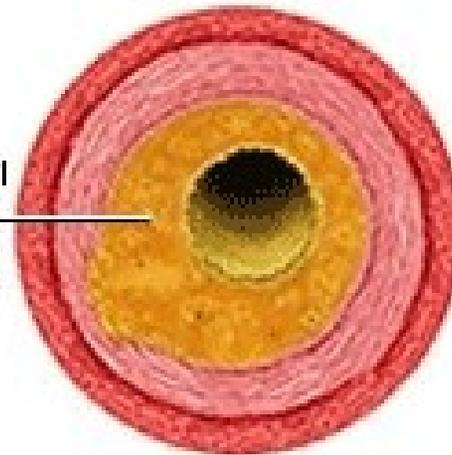


- High cholesterol can be associated with CKD
- Cholesterol builds up on the inside of your blood vessels. This makes pumping blood harder for the heart
- High cholesterol can lead to heart attacks and strokes

- Make sure to have your cholesterol monitored at your primary care provider's office
- Follow a low cholesterol diet
- Take your cholesterol medications as directed



Fatty material  
is deposited  
in vessel wall



# Obesity

- Goal is Body Mass Index (BMI)  $<25$
- BMI  $>30$  associated with worsening renal function
- Portion control and daily exercise recommended
- Stable, healthy weight improves blood pressure, diabetes and high cholesterol (all associated with worsening kidney disease)
- Obesity related kidney disease may be reversible with weight loss

# Healthy Eating

- The goal of good nutrition is to reduce the workload of the kidneys
  - Limit total fat (especially saturated, such as in butter & fatty meats)
  - Limit salt intake as much as possible
  - Know your cholesterol and potassium levels
  - Focus on well balanced meals
  - PORTION CONTROL
  - Consult with dietician



# Protein

- Protein is important to the body
- Helps to repair muscles and fights disease
- Protein mostly comes from meat, but is also in eggs, milk, nuts and beans
- Healthy kidneys remove the waste from the blood, but leaves the protein
- Damaged kidneys do not separate the protein from the waste very well, and protein leaks out into your urine
- Your health care provider will let you know how much protein to eat

## Salt

- To much salt can lead to or worsen high blood pressure, damaging your kidneys
- Salt causes water retention and swelling
- Salt worsens thirst and acts like a “sponge” to keep water in the body



- Healthy kidneys may take 5-7 days to process one high sodium meal
- Damaged kidneys can take 10-14 days to process the same high sodium meal
- Only 10-20% of salt intake is added at the table

# Salt Alternatives

- Try fresh or dried herbs to add flavor to foods
- CAUTION in using salt substitutes, they may still have a significant amount of salt or other minerals such as potassium, magnesium, etc..
- A 1500mg low sodium diet is suggested
- Sea salt and table salt have the same amount of sodium





# What is Anemia?

# Anemia

- Happens when your red blood cell count is low
- Becomes a problem as CKD gets worse
- Contributes to heart and blood vessel problems
- Medicine to help make more red blood cells may be prescribed (Epogen, Procrit, oral or IV iron)



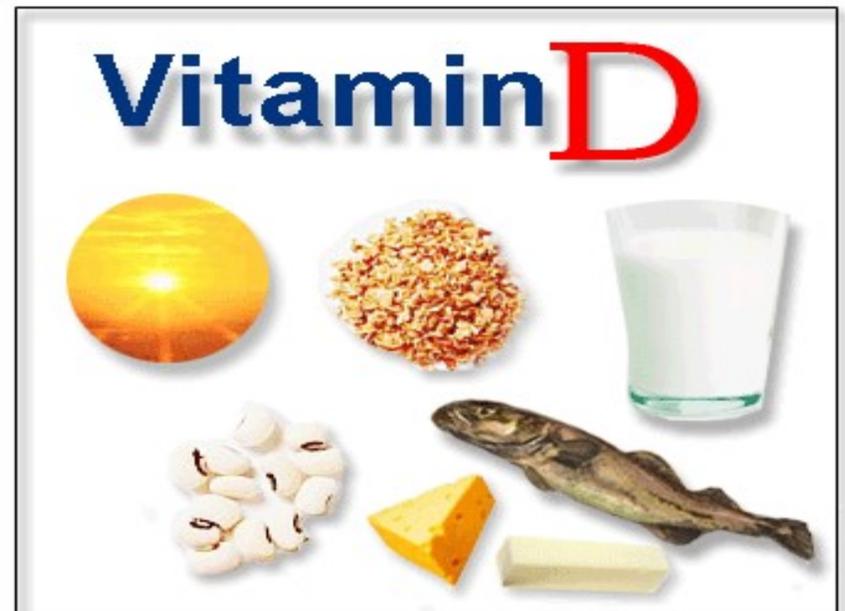
# What are the Symptoms of Anemia?

- Fatigue
- Excessive tiredness
- Dizziness
- Headaches
- Loss of sex drive
- Trouble concentrating
- Rapid heartbeat
- Shortness of breath
- Chest pain
- Often cold



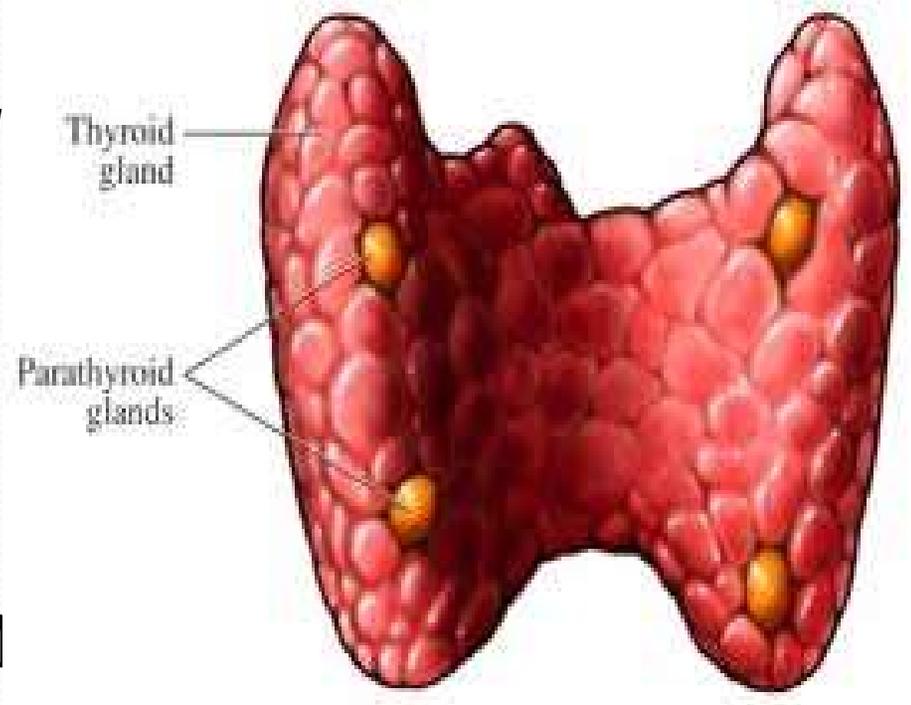
# Secondary Hyperparathyroidism

- Happens because your kidneys can not maintain normal levels of calcium, phosphorus, and vitamin D in you body
- Can lead to or worsen heart and blood vessel problems



# Parathyroid hormone (PTH)

Is made by your parathyroid glands, located behind the thyroid gland in your neck.



# Treatment of Hyperparathyroidism

- Restrict high phosphorus foods in your diet
- Take phosphorus binders with each meal
- Take Vitamin D
- Parathyroidectomy in cases resistant to all other treatments



# Depression

- Affects many people with CKD, in many different ways
- Possible symptoms of depression
  - Sadness or irritability
  - Crying more than usual
  - Less interest in things that you use to enjoy
  - Change in appetite
  - Feeling overwhelmed
  - Thoughts of “giving up”
- If you have these symptoms, talk to your primary care provider

# Ways to stay healthy

- Monitor your lab results and know your medications
- Ask a family member or friend for help when needed
- Make better lifestyle changes to improve your health (medication, diet, exercise)

# Exercise Goals

- Improve physical functioning
- Increase physical stamina
- Improve blood pressure
- Improve blood sugar control
- Reduce risk of heart disease
- Emotional well-being
- Lower cholesterol
- Improve sleep at night
- Improved sex drive
- Control body weight

# Things to think about..

- Have good shoes
- To reduce risk of low blood sugar, try exercising 30-60 minutes after eating
- Start slow and increase your physical activity
- Stop any exercise that causes pain
- Test your blood sugar before and after exercising. If it is less than 100, eat a snack before starting.



**Any questions?**