Disclosures
No financial disclosures but…

I am not a pediatric dietitian

I am not genetic specialist
Objectives

• Awareness of appropriate foods for each stage for chronic kidney disease across the lifespan
• Life style changes that may improve kidney function
• Briefly review the 2021 KDIGO/KDOQI nutrition guidelines

https://www.travlinmad.com/blog/traditional-food-around-the-world
Basic Nutrition Goals Across the Life Span with Kidney Issues
What kidneys do

• Maintenance Body Fluids

• Excretion of waste products of metabolism

• Regulation of blood pressure

• Makes hormones
Conception/Fetal Development

Supplementation
  Folic Acid
  Well balance diet
Blood sugar goals
Inborn errors
CAKUT
Birth to Age 2

- Nutrition assessment
- Nutrition for adequate growth and development
- Evaluation for weight, height, and BMI using WHO growth charts; head circumferences; mid arm circumference
- Renal evaluation
- Formula/Breast feeding
- Concern for malnutrition
- Milestones for age
  - Sucking
  - Head control for introduction of solids
  - Rolling
  - Sitting
  - Balance
  - Crawling
  - Standing
  - Walking
Age 2 to Age 12

Nutrition Assessment

Growth

CDC growth charts; head circumference up to age 3

Growth hormones

Nutritional goals

Normal diet

Low Sodium Medical Nutrition Therapy

High blood pressure
Age 13 to 18

Nutrition Assessment
Growth
  Growth hormones
  CDC growth charts
Nutritional goals
Peer pressure and eating with friends

Low Sodium Medical Nutrition Therapy
  High blood pressure
Ages 19-60

Goal is to slow the progression of kidney disease
Nutrition assessment
Causes of CKD
Hydration
Physical Activity
Special conditions
  Pregnancy
  Obesity
Age > 60

Nutrition assessment
Causes of CKD
Hydration
Physical Activity
Renal Replacement Therapy

Hemodialysis

Peritoneal Dialysis

Transplant

Palliative Care
What to eat
Plant Based Diet with Low Protein

Less meat especially red meats
More vegetables
Phosphorus and Phytates
Some fruit
Whole grains
Unsalted Nuts
Legumes
Tea and coffee
Lower Sodium Foods
Lower Potassium Vegetables

Less than 200mg per 1 cup leafy greens or 1/2 cup fresh, cooked, or canned vegetable (unless otherwise listed)

- Alfalfa sprouts
- Asparagus
- Bamboo shoots (canned)
- Bean sprouts
- Beets (canned)
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Corn (1/2 cup)
- Cucumber
- Eggplant
- Garbanzo beans/chickpeas (canned)
- Green or wax beans
- Greens: collard, mustard, or turnip
- Jicama/yambean
- Kale
- Lettuce: all types
- Mushrooms (raw or canned)
- Okra
- Onion or leek
- Peas: green, sugar snap, or snow peas
- Peppers: green, red, or yellow
- Radish
- Rhubarb
- Spinach (raw)
- Spaghetti squash
- Cherry tomatoes
- Turnip
- Yellow summer squash
- Water chestnuts (canned)

Foods listed are based on USDA Nutrient Database averages.

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http://www.renalnutrition.org
Lower Potassium Fruits

Less than 200mg per 1/2 cup fresh, canned, or 1 small fruit (unless otherwise listed)

- Apple
- Applesauce
- Apricot, fresh
- Berries
- Cherries
- Clementine
- Dried apples, blueberries, cherries, or cranberries (1/4 cup)
- Fruit cup: any fruit, fruit cocktail
- Grapes
- Lemon or lime
- Pear
- Pineapple
- Plum
- Tangerine or mandarin orange
- Watermelon (1 cup)

Juices (1/2 cup)
- Apple juice
- Cranberry juice
- Grape juice
- Lemon or lime juice
- Pineapple juice
- Nectars: apricot, mango, papaya, peach, or pear

Foods listed are based on USDA Nutrient Database averages.
Case studies
Case Report One

64 YO Male  
BMI 25.09  
Cret 1.8  
eGFR 56  
Kidney Stones, HTN, CKD stage III, hyperlipidemia  
Presented 4/7/2022  
Retired with limited physical activity

After nutrition counseling  
BMI 23 (weight maintenance)  
Cret 1.8  
eGFR 59  
Presented 5/18/2022  
Feels great  
Portion control, limiting sodium, less processed foods  
Wife lost weight as well
Case Study Two

80 YO Female
BMI 22.83
Cret 1.24
eGFR 30
IBS, HTN, CKD stage III, hyperlipidemia
Presented 4/22/2021
Retired with no exercise regimen

After nutrition counseling
BMI 22.6 (weight maintenance)
Cret 1
eGFR 59
Presented 5/17/2022
Questions
References


Thank you

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