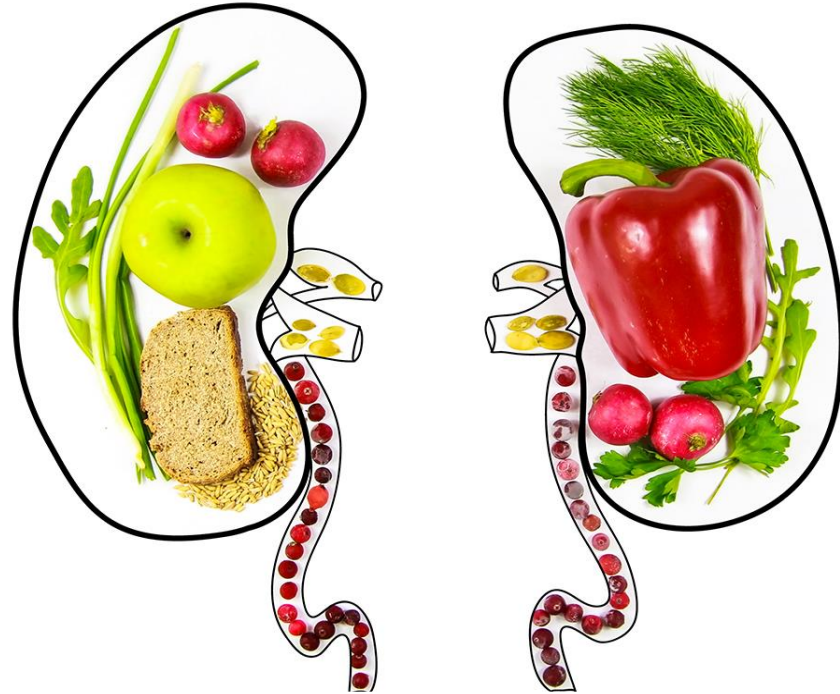


# Kidney Health Series

The Importance of Being Kind to Your Kidneys





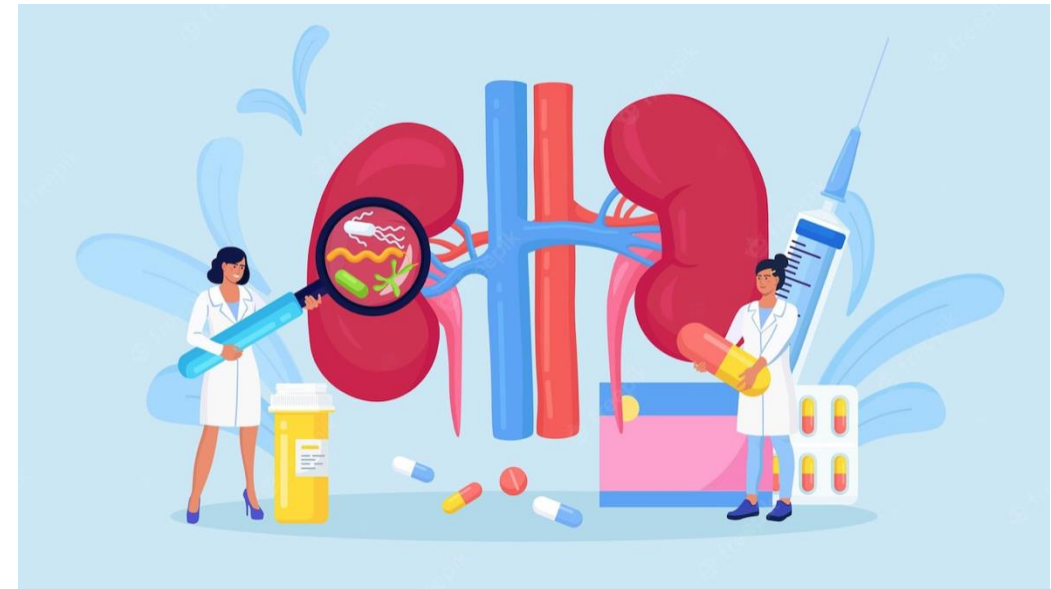
# Topics to be covered

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- Kidney Functions
- Hydration & Drinks
- Alcohol Intake
- Sodium Intake

# What do our kidneys do for us?

- Filter and clean our body from toxins and waste
- Return and balance beneficial substances into our bloodstream
  - Amino acids, glucose and hormones
- Maintain the balance of salts, minerals and water
- Powerful chemical factory
  - Produce hormones that play a vital role in our health



**That's why having healthy kidneys is key for a good quality of life.**

# When does kidney disease occur?

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- Kidneys lose their ability to filter out the waste and excess fluid from the blood.
- Accumulation (fluids, minerals, salts and waste) to dangerous levels.
- Gradual loss of kidney function might not be detected until it is in the advanced stages.



# Risk factors for kidney disease

- Diabetes
- High blood pressure
- Heart disease
- Smoking
- Obesity
- Abnormal kidney structure
- Older age
- Frequent use of medications

## Food & lifestyle habits and choices

### Kidney Health

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❗ **Creatinine**      **1.08**      1.07      1.16      1.15  
(Reference Range: 0.50-0.99 mg/dL)

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❗ **eGFR**      **54**      55      50      51  
((Reference Range: > OR = 60 mL/min/1.73m<sup>2</sup>))

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### Physical Measures

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❗ **Body Mass Index (BMI)**      **28.7**      27.5      26.9      26.8  
(Reference Range: 18.5-24.9 (calc))

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❗ **Blood Pressure**      **190/84**      132/90      147/80      133/88  
(Reference Range: < 120/80 mmHg)

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❗ **Waist Circumference**      **41**      32      39  
(Reference Range: < OR = 35 in)

# Kidney Health

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**! Creatinine**                      **1.08**                      1.07                      1.16                      1.15  
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**! eGFR**                                      **54**                                      55                                      50                                      51  
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# Your kidney health and hydration

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- Drinking enough water is crucial for Kidney and overall well-rounded Health
- General rule ~ ½ your body weight in fluid oz or more!
- Be kind to your kidneys by **not chugging water**. Rather, sip water throughout the day.



# Key hydration habits

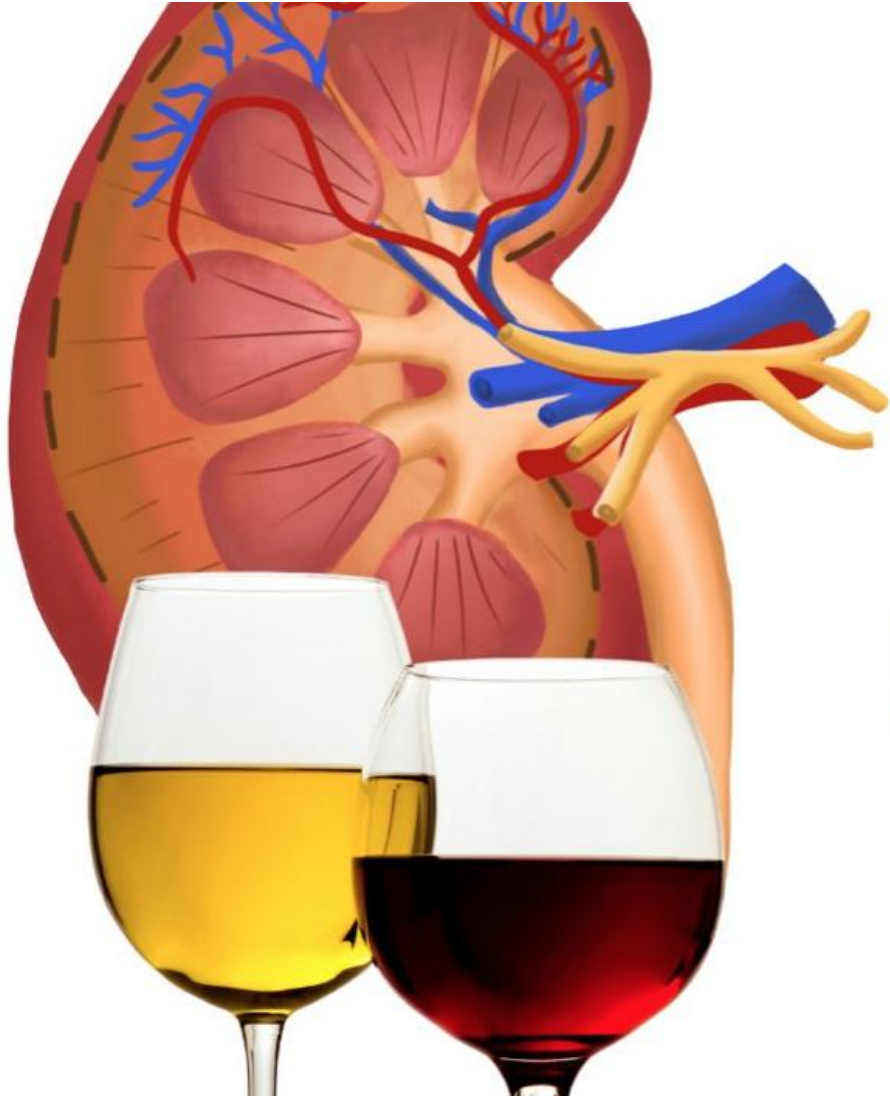
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- Water is best – avoid artificial sweeteners and colors
- Start the day ~ 10 oz before coffee
- Drink ~ 4-6 oz every 30-45 minutes
- Alarms on phone?





# Drinking alcohol can affect your kidneys



Regular alcohol consumption has been found to **DOUBLE THE RISK** of chronic kidney disease.

When alcohol dehydrates the body, the drying effect can affect the normal function of cells and organs, including the kidneys. In addition, alcohol can disrupt hormones that affect kidney function.



# Sodium and your kidney health

<b>Nutrition Facts</b>	
Serving Size 1/2 cup (115g)	
Servings Per Container About 4	
<b>Amount Per Serving</b>	
Calories 250	Calories from Fat 130
<b>% Daily Value*</b>	
Total Fat 14g	22%
Saturated Fat 9g	45%
Cholesterol 55mg	18%
Sodium 75mg	2%
Total Carbohydrate 26g	9%
Dietary Fiber 0g	0%
Sugars 26g	
Protein 4g	
Vitamin A 10%	Vitamin C 0%
Calcium 10%	Iron 0%

\* Percent Daily Values are based on a 2,000 calorie diet.

Make sure you look at the serving size. The package may contain more than 1 serving.

Choose foods with 140 mg or less of sodium if possible. Food items with 300 mg or more of sodium may not fit into the diet.



Look for labels that say:

- Salt free < 5 mg sodium
- Very low sodium < 35 mg sodium



- Aim for less than 500mg sodium per meal for less than 1500mg sodium per day
- Sodium from whole unprocessed foods is very different from sodium found in processed packaged foods & snacks



Calories: 510  
Fat: 2.5g  
Carbs: 99g (1g gram of fiber...)  
Sugar: 67g  
Protein: 13g

Calories: 290  
Fat: 9g  
Carbs: 32g (with 10g of fiber!)  
Sugar: none added  
Protein: 25g

# Treat KIDNEY DISEASE with Food and Lifestyle

- Reduce the acid-producing foods for optimal kidney health
- Include more alkaline foods for optimal kidney health

NOTE: Foods that are acidic are  
**not** the same as acid-producing foods!

Example, an orange or a tomato are acidic and might not be good for people with heartburn, but these acids are neutralized during digestion and do not produce acids during metabolism.





ACIDIC

ALKALINE



# KIDNEY DISEASE ALKALINE & ACIDIC FOODS

## **THE ACIDIC “WAY OF EATING”**

- High in animal products and added sugar
- Alcohol
- Convenient, processed foods
- Processed animal foods: bacon, sausage, cheese, meats

If too much acid is the byproduct of poor eating choices, the kidneys can't get rid of this extra acid ---- Builds up in the bloodstream = ACIDOSIS

**Acidosis can lead to** osteoporosis, muscle loss, exacerbate heart disease, fatigue, headaches, taste changes, aggravate and accelerate kidney disease.

# THE POWER OF PROTEIN



Muscle mass



Satiety

Optimal Metabolism

Ability of ones' body to burn calories

# NOT ALL PROTEINS ARE CREATED EQUAL

According to the World Health Organization...

Eating **50g** of processed meat a day - less than two slices of bacon - increased the chance of developing colorectal cancer by **18%**.



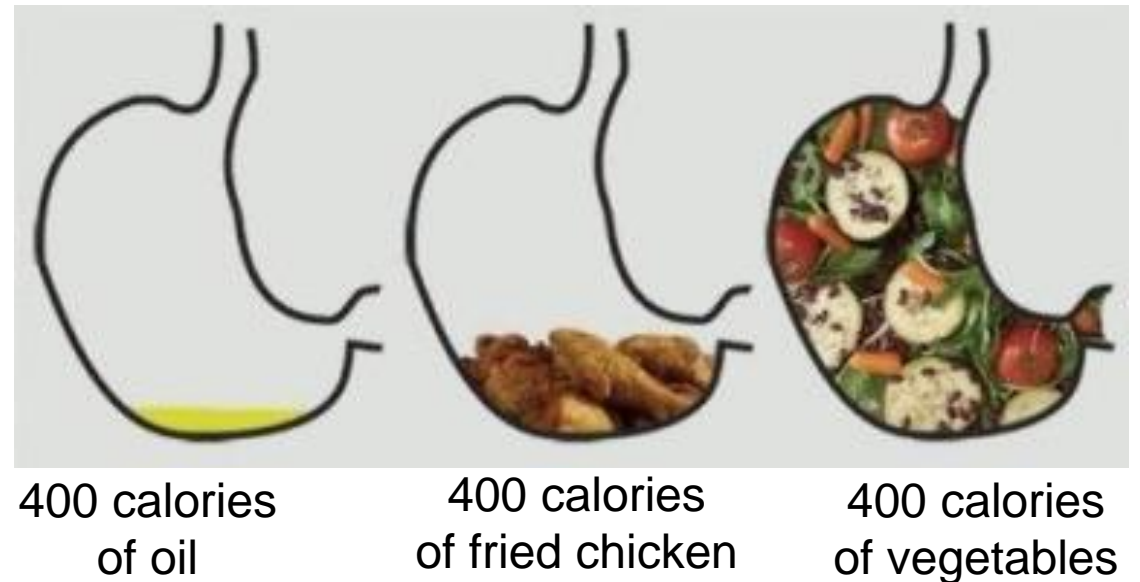
Source: IARC/WHO

© Global News

# Volume, Quality, Nutrition

## Vegetables and fruits

- EAT MORE - weigh less (low calorie density)
- High in fiber
- NUTRIENT DENSE: amount of nutrients in a food compared to the number of calories in the food

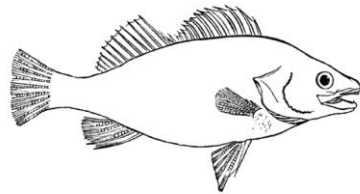


**1/2 plate vegetables and fruits = recipe for weight loss & maintenance**

# ANIMAL PROTEIN FOODS



**The fewer the legs the better!**



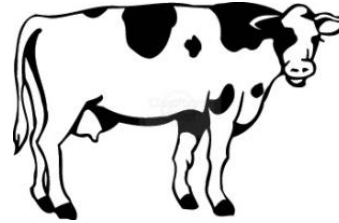
## **Choose**

- Most are great
- Salmon, trout, herring are rich in omega-3 fats



## **Choose**

- White meat
- Boneless, skinless
- Breast and thighs



## **Choose**

- Round steaks and roasts
- Top loin, top sirloin
- 90% lean ground beef

## **Choose**

- ✓ Seafood at least 2X/week as the main protein food

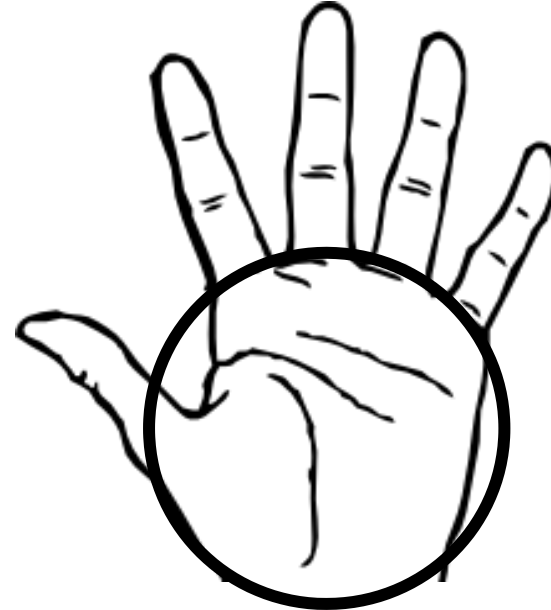
- ✓ Beans, peas, lentils as part of a meal often

## **Watch Out for:**

- ✓ Marbling
- ✓ Fried & breaded
- ✓ Sauces and gravies



# How much protein with Kidney Disease?



1. Your body's need for protein is proportional to the size and the thickness of the palm of your hand
2. More DOES NOT EQUAL better
3. **OPTIMAL QUALITY, AMOUNT and EVEN TIMING of protein intake IS KEY**

# Protein Content in Common Foods

Lentils, 1 c ckd	18
Other legumes, 1 c ckd	14-18
Hempseeds, ¼ c	13
Pumpkin seeds, ¼ c	10
Kamut, spelt, wheat, 1 c ckd	10-12
Amaranth, 1 c ckd	10
Quinoa, 1 c ckd	8
Nuts, most, ¼ c	5-8
Oatmeal, 1 c ckd	6
Spinach, 1 c ckd	5

Animal Food	Protein per serving (g)
Meat, 3 oz	20-25
Poultry, 3 oz	20-25
Fish, 3 oz	20-25
Eggs, 2 large	12
Milk, 2%, 1 c	8
Cheese, cheddar, 1 oz	7



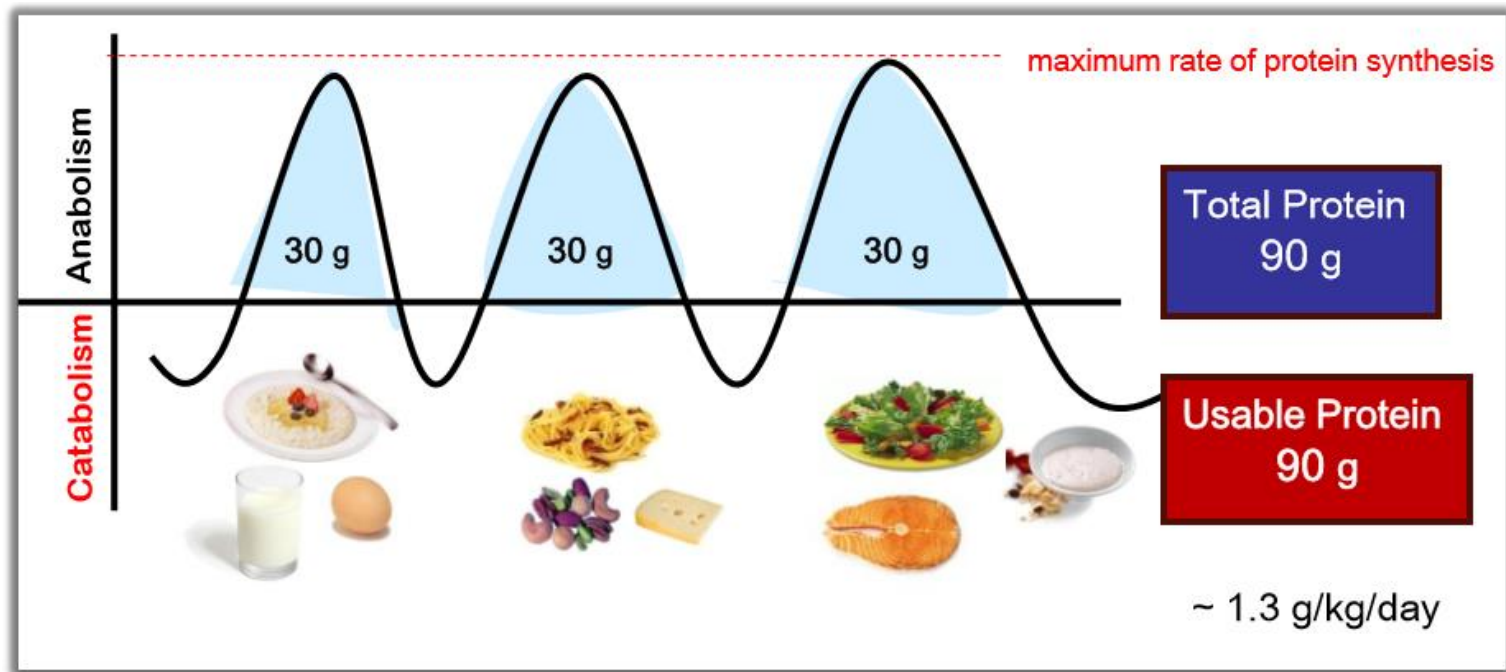
Sources: USDA Nutrient Database Release 27  
(Manitoba Hemp Hearts Product Label)

# How Can I eat more PLANT BASED PROTEIN Foods?

- Meatless chili
- Legume based pasta – no need to add meat
- Veggie and legume centered meals: salads - soups
- Homemade smoothies – plant-based protein sources?
- Plant based dairy alternatives
  - Coconut yogurt
  - Coconut milk – watch out for added sugars



# OPTIMIZING PROTEIN CONSUMPTION



Paddon-Jones and Rasmussen, *Curr Opin Clin Nutr Metab Care.*, 2009

- Recommendation: ~ 20 gm protein per meal – protein needs are individualized
- Space your protein intake evenly throughout the day.

## Show Your Kidneys Some Love

### Decrease inflammation via:

- Anti-inflammatory pattern of eating:
  - Mediterranean Style
  - Plant-Strong meals





Now it's time to take the kidney quiz!

<https://www.classmarker.com/online-test/start/?quiz=avm6372748bf1840>