

HEALTHY KIDNEY COOKING -WRITTEN BY ELISHA ARCHIE-AND SPONSORED BY RMA KIDNEY FOUNDATION

(W W W . N M K I D N E Y . O R G)



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FOREWORDS

ealthy Kidney Cooking is an educational book geared to help patients diagnosed with Chronic Kidney Disease (CKD), mostly focused on Stages 3-5. This material was written by Elisha, a former dialysis patient and transplant recipient who is now pursuing a nutrition degree at the University of New Mexico. Editing of content was provided by Morgan Saucedo MS, RD/LD a Registered Dietitian of fourteen years, ten of which have been spent in the dialysis setting.

The idea of a new or modified diet may be overwhelming at this point in your journey. You may have received handouts in the past on what is healthy to eat, but are not quite sure how to put it all together or if it is right for you. Healthy Kidney Cooking is a great resource that will help you and your family members navigate the diet specifically for CKD. Topics such as label reading, sodium, fluid, potassium, phosphorus, protein, and exercise and weight management are discussed. Useful recipes and additional websites are found towards the end of the book to help make this diet more practical in your everyday life.

Keep in mind, each patient's diet may be slightly different based on the latest laboratory values and/or kidney function. Therefore, this book is intended to be used in conjunction with the recommendations that your nephrology provider gives you at your appointments.

GETTING STARTED WITH MAINTAINING HEALTHY KIDNEYS

hat is CKD?

Chronic Kidney Disease (CKD) is described as a decrease in renal function. CKD is considered a progressive disease that could lead to kidney failure over time, if not treated. The damage can result in waste buildup and other health concerns, such as cardiovascular disease (CVD), anemia, and bone disease.

Nutrition is an important part of the therapy for CKD. A kidney friendly diet can help slow down the progression of CKD towards end stage renal disease (ESRD), which is defined as the need for dialysis or transplantation. Good nutrition can also help you to control two of the biggest risk factors for CKD: Diabetes and Hypertension. By choosing to maintain a proper diet, you can better control your blood sugar and blood pressure. This can help you preserve your kidney function as well as possibly leading you to less of a need for prescription medications.

This book is meant to help guide you to make the best food choices for overall health and to keep you and your kidneys working as well as they can. This information is a general guide. Since each person is unique, your Dietitian or provider will need to supplement this guide and work with you to develop a meal plan, which meats your specific needs.



WHERE TO START!

1. Eat a balanced, kidney and heart healthy diet.

hen your kidney function slows, your nutritional status can be greatly affected. This is in part due to the fact that the kidneys are filtering systems in our bodies. Some nutrients may not be filtered as effectively, so you need to limit them in your diet. Some also "spill" extra protein in the urine while others can develop a decrease in appetite which can lead to protein malnutrition. Below are general recommendations, which may be be modified by your Dietitian and/or nephrology provider to meet your specific needs.

My Daily Goals:

Calories: 30 – 35 kcal/ kg Protein: ~ 0.8 g/ kg Sodium: 1500 – 2000 mg Potassium: 2000 – 3000 mg Phosphorus: less than 1200 mg

** To figure your weight in kilograms (kg), divide your weight in pounds by 2.2. Example: Calorie (kcal) needs for a 150-pound person. 150/2.2 = 68.2 kg. Take that number and multiply it by 30-35. 2,046-2,387 kcal/day.

**If you are overweight or underweight, you may need to use your Ideal Body Weight (IBW) to calculate your daily needs.

For women – 100 lbs for first 5 feet + 5 lbs for each inch over 5 feet For men – 106 lbs for first 5 feet + 6 lbs for each inch over 5 feet For example, 5 foot 3-inch woman. 100 lbs + $(3 \times 5 \text{ lbs}) = 115 \text{ lbs}.$

- 2. Increase physical activity
- 3. Keep blood pressure under control
- 4. If you have diabetes, keep your blood sugar well controlled
- 5. Quit smoking

WHERE TO START!

STAGE	EGFR	DESCRIPTION
1	90-130 mL/min	Kidney damage, but Kidney Function
2	60-89 mL/min	Mild decrease in Kidney Function
3	30-59 mL/min	Mild to moderate decrease in Kidney Function
4	15-29 mL/min	Serve decrease in Kidney Function
5	Less than 15 mL/ min	Kidney failure/ End-Stage RenalDisease

For the purpose of this book, we will be focusing on CKD – Stages 3-5

POTASSIUM

hat is Potassium: Potassium is a mineral found in many foods that we eat. Potassium helps with keeping the heart beating regularly and the muscles working properly. With healthy kidney function, the right amount potassium in the body is usually maintained. With decreased kidney function the body is unable to maintain the healthy levels of potassium. Patients with CKD are at risk for high potassium, which is why limiting certain foods are necessary. High potassium levels in the blood, can reach dangerous levels, which could lead to irregular heartbeat or heart attack. Patients that have experienced high potassium levels have felt weakness, numbness, and tingling.

Tips to help maintain healthy Potassium Levels

- Limit foods high in Potassium
- Limit all dairy products or replace with plant-based substitutions
- Pay attention to serving sizes and servings per container
- Avoid salt substitutes, they may contain potassium and should NEVER be used
- Drain and Rinse all CANNED foods before eating
- Read the product's ingredient list. Processed foods such as canned foods may contain *potassium chloride*
- Low sodium and potassium chloride products may have and should be AVOIDED.
- If you have Diabetes, and you're experiencing low sugar levels choose over the counter glucose tablets or gel.

What is a Healthy Potassium Blood Level: Your nephrology provider will be monitoring your levels.

Calories: 30 – 35 kcal/ kg Protein: ~ 0.8 g/ kg Sodium: 1500 – 2000 mg Potassium: 2000 – 3000 mg Phosphorus: less than 1200 mg

POTASSIUM: WHAT CAN I EAT?

Lower Potassium Fruits: Apples – Apple Juice – Applesauce – Blackberries – Blueberries – Cherries – Dried fruits (apples, blueberries, cherries, coconut, cranberries) – Fruit Cocktail – Grapes – Grape Juice – Lemon – Lime – Lychee – Pear – Persimmon – Pineapple – Plum – Raspberries – Strawberries – Tangerine – Watermelon

Lower Potassium Vegetables: Asparagus – Bean Sprouts – Broccoli – Cabbage – Carrots – Cauliflower – Celery – Corn – Cucumber – Eggplant – Green or Wax Beans – Greens (collard, mustard, turnip) – Jicama – Kale – Leeks – Lettuce – Mushrooms – Okra – Onion – Peas (green, sugar snap, snow) – Peppers (green, red, yellow, jalapeno) – Radish – Spinach (raw) – Squash (spaghetti, yellow, zucchini) – Turnips – Water Chestnuts



In some cases, you may need to follow a very low potassium diet and you will be asked to avoid ALL higher potassium foods. Other times, you may choose very small portions of these higher potassium foods. Such as, a slice of tomato on a sandwich or $\frac{1}{2}$ cup double boiled potatoes (see recipe on next page).

Higher Potassium Fruits: Apricots (fresh) – Bananas – Cantaloupe – Dates – Nectarines – Kiwi – Prunes – Prune Juice – Oranges – Orange Juice- Raisins

Higher Potassium Vegetables: Acorn or Butternut Squash – Avocado – Baked Beans – Beets – Brussel Sprouts (cooked) – Chard – Chile Peppers – Potatoes – Pumpkin – Spinach (cooked) – Split Peas, Lentils, Beans – Sweet Potatoes/Yams – Tomatoes – Tomato Juice – Tomato Sauce – Vegetable Juice

1 serving = 1 small piece, $\frac{1}{2}$ cup fresh or cooked, 1 cup raw leafy, $\frac{1}{4}$ cup dried



1 cup = baseball 1/2 cup = standard lightbulb

STEPS TO REDUCE POTASSIUM IN VEGETABLES

Follow these instructions to reduce the amount of potassium and sodium in potatoes (white and sweet) and other vegetables, such as carrots, beets and squash.

- 1. Peel and cut the potatoes into thin slices
- 2. Place the potatoes in a pot with at least 4 times more water than potatoes. (For example, if you have 1 cup of thinly slices potatoes, use at least 4 cups of water)
- 3. Boil the potatoes until soft, but still holding together
- 4. Drain the water from the potatoes
- 5. Add fresh water in the same amount as used the first time
- 6. Boil the potatoes until soft, but still holding together
- 7. Drain the water and prepare (mashed, scalloped, fried or potato salad)



This recipe does not remove all potassium. You will still need to limit your serving.



PHOSPHORUS

What is Phosphorus It is a mineral found in the body. The majority is found in the bone, which is made up of 85 percent of phosphorus. It is also the second most abundant mineral after calcium, which makes it an important mineral to discuss as a CKD patient.

Why Is Phosphorus Important? When healthy kidneys function properly the body is able to remove the excess phosphorus from the body. However, with CKD the kidneys are unable to properly remove phosphorus. As a result, phosphorus will begin to build-up, which is dangerous and can bring damage to the body. The body's reaction to high phosphorus levels is to pull calcium out of the bones, which weakens and can lead to random calcium deposits in blood vessels, lungs, eyes, and heart. Therefore, monitoring phosphorus is important to maintain a healthy life with CKD.

What's a Normal Phosphorus Blood Level? Aim for levels between 2.5 to 4.5 mg/dL (CKD Stage 3-4) 3.0 to 5.5 mg/dl (ESRD/Dialysis)

How to Control Phosphorus levels Limit or avoid foods that are **HIGH** in phosphorus, as well as, AVOID foods with added Phosphorus "PHOS" (see box below). If on dialysis, **NEVER** skip a treatment, dialysis can help remove excess phosphorus. If phosphorus **BINDERS** are prescribed, remember to take them with ALL meals and snacks. There is phosphorus in almost everything that we eat (in the form of phosphate additives). Always remember to work closely with your nephrology provider to help monitor and manage your phosphorus levels.

CHECK THE LIST OF INGREDIENTS AND CHOOSE OPTIONS WITH NO ADDED PHOSPHATES (WORDS WITH

- Phosphoric acid
- Sodium polyphosphate
 - Pyrophosphate
- Dicalcium phosphate
- Sodium trypolyphosphate
 - Polyphosphate
 - Tricalcium phosphate

- Hexametaphosphate
- Trisodium phosphate
- Sodium phosphate
- Tetrasodium phosphate
- Dicalcium phosphate
- Aluminum phosphate
 - Additives

Ingredients: Whole Grain Corn, Sugar, Whole Grain Oats, Brown Sugar Syrup, Corn Syrup, Canola and/or Rice Bran Oil, Salt, Dried Corn Syrup, Banana Puree, Corn Bran, Gorn Stirch, Trisodium Phosphate, Coor Added, Sodium Citrate, Natural Flavor, Natural Almond Flavor, Vitamin E (mixed tocopherols) and BHT Added to Preserve Freshness. Vitamins and Minerals: Calcium

Carbonate, Vitamin C (sodium

FOODS HIGH IN PHOSPHOROUS TO AVOID OR LIMIT

	Chocolate Drinks
Beverages	Drinks made with milk
	Dark Sodas (Pepsi, Coke, Dr. Pepper)

Kool-Aid, Tang, Hawaiian Punch Bottled/ Canned Teas with PHOS additives Bottled beverages with PHOS additives

Dairy Products	Cheese Ice Cream Pudding Yogurt (Greek type acceptable on Dialysis)	Custard Milk Cream Soups Coffee Creamer (contains PHOS)
Protein	Oysters Beef Liver Sardines Lunch Meats	Chicken Liver Organ Meats Fish Roe
Other Foods	Chocolate & Chocolate Candy Caramel Baked Goods Jell-O Most processed / prepared foods	Raisin Bran Bran Muffins Pizza Fast Food

Success starts at the grocery store. Read food labels and avoid "PHOS" phate additives Choose fresher products and have fun cooking at home.

SODIUM

WHAT IS SODIUM? Sodium is a mineral that is found abundantly as sodium chloride, which makes up salt. Sodium can be found in saltshakers, canned foods, processed foods and "fast" foods; as well as, condiments, seasonings and processed meats.

WHY IS SODIUM IMPORTANT TO KNOW ABOUT? One of the primary functions of the kidneys is to regulate blood pressure. By eating too much sodium, it makes the kidneys work harder, because they have to filter out the excess sodium in the body. This can cause damage to the kidneys. Damaged kidneys cannot filter as well as healthy kidneys. As a result, sodium can increase blood pressure and cause swelling. Aim for a blood pressure reading of 140/90 mmHg or lower.

HOW MUCH SODIUM SHOULD YOU EAT? Aim for 2,000 milligrams (mg) <u>or less</u> of sodium each day. You DO NOT need any extra salt in your diet. The desire for salt in foods is an acquired taste. You can tame your taste buds by using the tips on the next page.

1 teaspoon (tsp) of salt = 2,300 mg of sodium chloride! SKIP THE SALT

Excess sodium, in most cases, is not coming from the salt shaker, but from already prepared meals you buy at the grocery store or restaurant. Make sure to carefully read food labels.

TIPS FOR LOWERING SODIUM

- 1. Starting in the grocery store, READ food labels. Buy fresh, low sodium or no-salt added products (without added potassium). Choose foods with less than 140 mg sodium per serving
- 2. Prepare your meals at home using fresh or low sodium ingredients
- 3. Drain and rinse all canned foods
- 4. When dining out, ask for your food to be prepared without added salt, ask for sauces on the side and go easy on the condiments
- 5. Avoid croutons and bacon bits on salads.
- 6. Always check the ingredient list for added sodium (see table below)
- 7. Use herbs and spices to provide flavor to food instead of salt.
 - Allspice, basil, bay leaves, cayenne pepper, cinnamon, cloves, cumin, curry, dill, fennel, garlic, ginger, marjoram, nutmeg, oregano, paprika, parsley, poppy seeds, rosemary, saffron, sage, savory, tarragon, thyme, turmeric
 - Ask your Dietitian for tips on how to use these spices in your cooking •

COMMON NAMES FOR ADDED SODIUM (AVOID)

- Salt (Sodium Chloride) Sodium phosphate Monosodium glutamate (MSG) Sodium alginate Baking soda (sodium bicarbonate) Sodium benzonate Sodium hydroxide
 - **Baking Powder**
 - Sodium nitrate
 - **Sodium sulfite**

- Sodium propionate
 - Additives

SPICE IT UP

Spicing up your food with herbs and spices doesn't mean giving up flavor. Learn to be creative and experiment with many different types of seasonings to create new and exciting flavors.

TIPS FOR COOKING WITH HERBS AND SPICES

- Purchase spices and herbs in small amounts. When they sit on the shelf for years they lose their flavor.
- Use no more than ¹/₄ teaspoon of dried spice (³/₄ of fresh) per pound of meat.
- Add ground spices to food about 15 minutes before the end of the cooking period.
- Add whole spices to food at least one hour before the end of the cooking period.
- Combine herbs with oil or butter, set for 30 minutes to bring out their flavor, then brush on foods while they cook, or brush meat with oil and sprinkle herbs one hour before cooking.
- Crush dried herbs before adding to foods

CAN I USE SALT SUBSTITUTES? NO!

The majority of salt substitutes contain some form of potassium. Potassium needs to be limited, to prevent elevated levels of potassium in the blood, **use Mrs. Dash instead. All flavors of Mrs. Dash are salt-free and potassium-free, and okay to use with each dish.**

HYPERTENSION

The DASH diet is generally more appropriate for the earlier stages (CKD 1-3) of kidney disease and should be discussed with your Dietitian and/or nephrology provider. Because the DASH diet tends to emphasize higher potassium, people with Stage 5 (ESRD/ Dialysis) and patients who have been told to follow a low potassium diet should NOT follow this diet.

In addition, the DASH diet encourages lean sources of protein (seafood, poultry, lean meat and low-fat dairy) which contains low amounts of saturated fat and cholesterol. By reducing saturated fat content in your diet, you can help reduce the risk for cardiovascular disease.

For more information on the DASH diet, visit the National Heart Lung and Blood Pressure Institute's website at:

	SYSTOLIC BP (MM HG)*		DIASTOLIC BP (MM HG)*
NORMAL	<120	AND	<80
PREHYPERTENSION	120-139	OR	80-89
STAGE 1 HYPERTENSION	140-159	OR	90-99
STAGE 2 HYPERTENSION	≥160	OR	≥100

https://www.nhlbi.nih.gov/health/health-topics/topics/dash

CHANGE IN LIFESTYLE

APPROXIMATE SYSTOLIC BP REDUCTION

Lose Weight	5-20 mmHg for 22lbs of weight loss
Low Sodium Diet	2-8 mmHg
Increase Physical Activity	4-9 mmHg
Moderate Alcohol	2-4 mmHg

DIABETES MANAGEMENT

Diabetes Mellitus is a disease characterized by high blood glucose levels, either because of defects with the pancreas releasing insulin, insulin isn't working the way it should, or both. Insulin is a hormone that is made in the pancreas; it is necessary for use or storage for fuel (carbohydrate, protein, and fat). Diabetes continues to be the most common cause of CKD in America.

WHAT DIABETES DOES TO THE KIDNEYS: Diabetes injures the small vessels in the body. With continuous high blood sugars, the small vessels can damage your kidneys resulting in kidneys unable to function properly. Therefore, monitoring and controlling your blood sugars is vital to prevent further damage to the kidneys

WHEN SHOULD YOU CHECK YOUR BLOOD SUGARS?

- Before each meal
- 1 or 2 hours after a meal
- Before a bedtime snack
- In the middle of the night
- Before physical activity, to see if you need a snack
- During and after physical activity
- If you think your blood sugar might be too high or too low, or falling
- When you're sick and under stress



TIPS TO REMEMBER

- Exercising will help maintain healthy blood sugar levels
- If overweight, weight loss will help improve blood sugar levels

• Consume a <u>consistent carbohydrate</u> diet. This means having the same amount of carbohydrates at each meal and snack. The average person should consume between 45-60 grams carbohydrate with a meal and 15-30 grams carbohydrate with a snack. Talk to your Dietitian or Diabetes educator for a more

specific plan for you. The following page will provider you with additional tips for following a diet for diabetes AND kidney disease.

• If insulin or oral diabetes medication has been prescribed, take it as recommended by your prescribing provider.

DIET FOR DIABETES & KIDNEY DISEASE

Diet becomes even more important for patients with both diabetes and kidney disease. The key is to focus on the amount of carbohydrates (sugars) you eat. Carbohydrates can be found in many foods such as fruits, dairy, breads, grains, desserts and many drinks. The following tips will help guide you on how to eat for both conditions.

- Follow a low sodium diet, this will help with managing a healthy blood pressure and reduce or prevent fluid buildup.
- Talk to your dietitian or nephrology provider about how much protein is appropriate for you. Too much can be harmful for diabetic patients.
- Establish a routine for meals and snacks. It is important to eat a diet that is consistent in carbohydrates. For example, eat 3 meals with 45-60 grams carbohydrate per meal. If your provider has also instructed you to eat snacks, consume 15-30 grams carbohydrate per snack.

The following are examples of foods and drinks that can be exchanges and are good for both diets.

FRUITS	VEGETABLES	STARCHES	PROTEIN SOURCES	DRINKS
GOOD: Berries, grapes, apples, cherries, plums	GOOD: Cauliflower, onions, asparagus, eggplant, turnips	GOOD: Sourdough bread, bagel, unsalted crackers,	GOOD: Lean meats (poultry, fish), eggs, beans, unsalted seafood	GOOD: water, clear diet sodas, crystal light (phosphate free flavors), unsweetened tea
AVOID: Canteloupe, mangos, kiwi, oranges, bananas, pomegranate	AVOID: okra, spinach, potatoes, avocado, artichokes, tomatoes	AVOID: sugar coated cereal, pancake and biscuit mix, potato chips, bran muffins	AVOID: bacon, hot dogs, sausage, lunch meats, salted nuts	AVOID: dark sodas, beer, sugary drinks such as Tang, Hawaiian Punch or Sunny Delight, sweet tea or lemonade

Other items to be limit/ avoid: ketchup, soy sauce, barbecue sauce, hot sauce, candy, cake, and cookies

The **Exchange Method** or **Carbohydrate Counting** are two methods for developing a meal plan based on the total number of carbohydrates you eat for a meal or snack. Your dietiian or diabetes educator can help develop a plan that works for you.

BENEFITS of AEROBIC EXERCISE

Exercise at any stage of Chronic Kidney Diesase (CKD) can help fight the progression of this disease. Always, with any new physical activity it's <u>always important to check with</u> <u>your provider first.</u>

HOW OFTEN SHOULD I EXERCISE? If it's been a while since that last time you have exercised, start with 5-15 minutes per day. Gradually build up to more challenging exercises, such as aerobic exercises, and extend the time until you reach 30 to 60 minutes a day, most days of the week. Exercise is not only good for your heart, but it can also be an important piece of the puzzle for weight loss or weight management.

WHAT IS AN AEROBIC EXERCISE? Aerobic training involves the repeated, rhythmic movement of large muscle groups, such as bicycling, jogging, or using an elliptical machine. You feel your heart rate rise, and you begin to sweat after a few minutes.

THE BENEFITS OF REGULAR (30 MINUTES/DAY, 4-7 DAYS/WEEK) AEROBIC TRAINING ARE NUMEROUS:

- Improves functional endurance (ie, can move for longer periods of time without getting winded) because of increased heart ejection fraction, cardiac output, and increased oxygen extraction from the blood to the muscles
- Lowers blood pressure and potentially decreases need for blood pressure medications
- May improve cholesterol levels, especially for individuals with advanced CKD by reducing very-low-density lipoprotein (VLDL) and triglycerides, while improving the good, high-density lipoprotein (HDL) cholesterol
- May improve blood glucose control in people with insulin resistance or diabetes
- Assists with better weight management because both overweight and underweight can lead to increased risk of CKD progression; promotes weight loss in patients and clients who are overweight, and promotes better calorie and protein appetite in those who are underweight
- Improves physical and mental health, including lower levels of depression and anxiety, less pain, and better functioning, as determined by patients and clients

BENEFITS of STRENGTH TRAINING

Strength training is a type of physical exercise specializing in the use of resistance to induce muscular contraction, which builds **strength**. It uses weights, machines, or your own body weight. Strength training allows for better movement to perform daily tasks or chores more easily. Strength training compared to aerobic training requires slightly more energy and strength, but still can see results within much shorter periods of time.

BECAUSE OF THESE DIFFERENCES, RESISTANCE AND FUNCTIONAL TRAINING CAN PROVIDE A NUMBER OF UNIQUE BENEFITS:

- May help fight muscle loss by improving inflammation in people with Stage 4 CKD, Stage 5 CKD and dialysis patients
- May promote muscle growth or maintenance by activating anabolic pathways in the body (insulin and insulin-like growth factors)
- Increases strength and functional capacity to perform daily activities, such as walking and standing



GFR—GLOMERULAR F ILTRATION RATE

Purpose: To determine how much kidney function a person has.

Normal range: 90+, with little or no protein (or albumin) in urine.

BUN — BLOOD UREA NITROGEN

Purpose: To detect elevated waste levels in the bloodstream, which is an early sign of reduced kidney function.

Normal range: 7 to 20 milligrams per deciliter (mg/dl).

BLOOD ELECTROLYTE LEVELS

Purpose: To measure the levels of electrolytes (sodium, potassium, calcium, phosphorus) in the body that help move nutrients and waste in and out of cells.

Sodium: 136 to 145 mEq/L

Potassium: 3.5 to 5.0 mEq/L

Calcium: 8.4 to 10.2 mg/dL

Phosphorus: 2.5 to 4.5 mg/dL

URINE FOR PROTEIN SCREEN (MICROALBUMIN)

Purpose: To detect a protein called albumin in the urine, which may indicate kidney damage.

Normal range: Almost no albumin should be detected.

SERUM CREATININE

Purpose: To determine how much creatinine is in the bloodstream.

Normal range: 0.6 to 1.3 milligrams per deciliter (mg/dl). This range can vary depending on gender and age.

A1C — GLYCOSYLATED HEMOGLOBIN TEST

Purpose: To determine average blood glucose levels over a two to three-month period. This test is for people with diabetes.

Target range: American Diabetes Association goal is less than 7.0 gm/dl for good blood glucose management for people with diabetes.

PROTEIN

Patients diagnosed with CKD, stage 1-4 may be asked to limit or decrease the amount of animal-based protein they eat. Research has shown prolonged diets high in animal-based protein could cause harm and accelerate the decline of kidney function. Whereas, diets low in protein have shown slow decline in kidney function. Plant-based protein (vegetarian) diets may also help slow down the progression of kidney disease without compromising nutritional needs.

What is PROTEIN? Protein is an important nutrient that helps repair and maintain body mass and fight infection. Your needs for protein may be similar to someone without kidney disease. It is important to closely monitor how much protein you consume; excessive protein intake may result in proteinuria, which is the increased amount of protein in the urine. This may indicate further damage to the kidneys. At stage 3-4, it may be recommended that you limit your protein to 0.6 to 0.8 grams (g) per kilogram (kg) per day. Most importantly, approximately 2/3 of this protein should come from high quality plant protein or animal/ plant combination.

QUALITY OF PROTEIN	SERVING SIZE = 7 G PROTEIN
Egg (or egg whites)	1
Veggie Type Burger	½ to 1 burger
Setan (Wheat Gluten)	1 oz.
Beans, Dried & Cooked	1/3 – 1/2 cup
Tofu	1/4 — 1/2 Cup
Tempeh	1/4 Cup
Nut Butter	2 Tablespoons
Meat, Fish, Poultry	1 oz.
Cottage Cheese/ Greek Yogurt	¹ ⁄ ₄ Cup

What is the Right PORTION of MEAT? you can get your daily protein needs by eating one (1) 3-ounce serving of meat or meat substitute per meal, with NO second helping on meat. A 3- ounce serving of meat is about the size of cards or the palm of a person's hand.



LET'S COMPARE VEGGIE BURGERS

MORNINGSIDE BURGERS



Nutrition Facts

4 servings per container Serving size 1 Burg

1 Burger (67g)

Amount Per Serving Calories	110
	% Daily Values
Total Fat 3.5g	4%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 350mg	15%
Total Carbohydrate 9g	3%
Dietary Fiber 3g	11%
Total Sugars 1g	
Includes 0g Added Sugars	. 0%
Protein 10g	20%
Vitamin D 0mcg	0%
Calcium 50mg	4%
Iron 0.8mg	4%
Potassium 180mg	4%

BOCA BURGERS



Nutrition Facts

4 servings per container

1 Burger (71g)

Amount Per Serving

Serving size

Calories

70

	% Daily Values
Total Fat 0.5g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 280mg	12%
Total Carbohydrate 6g	2%
Dietary Fiber 4g	14%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Protein 13g	26%
Vitamin D 0mcg	0%
Calcium 80mg	6%
Iron 1.8mg	10%
Potassium 370mg	8%

serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

AMY'S VEGGIE BURGER



Nutrition	Facts
4 servings per contain	er
Serving size	1 Burger (71g)
Amount Per Serving Calories	140
	% Daily Values*
Total Fat 3.5g	4%
Saturated Fat 0g	0%
Trans Fat 0g	
Sodium 390mg	17%
Total Carbohydrate 14g	5%
Dietary Fiber 4g	14%
Total Sugars 2g	
Includes 0g Added Su	igars 0%
Protein 13g	26%
*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

*Be careful with this burger, Potassium is not listed.
LEARNING TO READ FOOD LABELS

Remember that the information shown in these panels is based on 2,000 calories a day. You may need to consume less or more than 2,000 calories depending upon your age, gender, activity level, and whether you're trying to lose, gain or maintain your weight.

Always look at Serving Size and Servings Per Container first. This will help determine how much nutrients are actually being consumed based on the serving size.

Limit the following, they can increase your risk of certain diseases, such as heart disease, some cancers, or high blood pressure.

- Fat
- Saturated Fat
- Trans Fat
- Cholesterol
- Sodium

Potassium and Phosphorus are not commonly seen on food labels; it is not an FDA requirement. It is still important to always check the ingredient list.

Remember to read the ingredient list carefully and look for added ingredients; such as: PHOSPHORUS, which is commonly seen as "PHOS" (see phosphorus page), POTASSIUM (see potassium page), and SODIUM (see sodium page).

Nutrition Facts

Serving size 1 cup (255g)				
Calories	Per s		Per con	taine 40
		% DV*		% DV*
Total Fat	5g	6%	10g	13%
Saturated Fat	2g	10%	4g	20%
Trans Fat	0g		0g	
Cholesterol	15mg	5%	30mg	10%
Sodium	240mg	10%	480mg	21%
Total Carb.	35g	13%	70g	25%
Dietary Fiber	6g	21%	12g	43%
Total Sugars	7g		14g	
Incl. Added Sugars	4g	8%	8g	16%
Protein	9g		18g	
Vitamin D	5mcg	25%	10mcg	50%
Calcium	200mg	15%	400mg	30%
Iron	1mg	6%	2mg	10%
Potassium	470mg	10%	940mg	20%

The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

If your food has the Daily Value listed for phosphorus use this guide:

0% - 5% Daily Value = Low Phosphorus (0-50 mg)

5%- 15% Daily Value = Medium Phosphorus (51 – 150 mg)

Greater than 15% Daily Value = High Phosphorus (150 mg or higher)



MEDITERRANEAN DIET

The Mediterranean Diet is a diet that primarily consists of plant-based foods, such as fruits, vegetables, whole grains, legumes and nuts. The diet also includes fish and poultry at least twice a week, and healthy fats- like olive oil. Saturated fats, processed foods and sweets are limited. Research has shown that patients who followed this diet closely were 42% less likely to develop rapidly declining kidney function compared to those that did not.

WHAT DOES THE MEDITERRANEAN DIET CONSIST OF?

- 1. Eating primarily plant-based foods, such as fruits and vegetables, whole grains, legumes and nuts
- 2. Replacing butter with healthy fats such as olive oil and canola oil
- 3. Using herbs and spices instead of salt to flavor foods
- 4. Limiting red meat to no more than a few times a month
- 5. Eating fish and poultry at least twice a week
- 6. Enjoying meals with family and friends
- 7. Drinking red wine in moderation (get approval from your nephrology provider)
- 8. Getting plenty of exercise

WHAT ARE THE BENEFITS?

- Can help slow the progression of kidney function
- Helps promote weight loss
- Improves heart health
- Helps in the maintenance of diabetes
- Can help with mood and cognitive thinking
- Low in processed foods and sugars

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BREAKFAST

One cannot think well, love well, sleep well if one has not dined well ~Virginia Woolf

EGG IN A HOLE

INGREDIENT

- Large egg
- Slice white bread
- Olive Oil Cooking Spray
- ¼ teaspoon Mrs. Dash ->Lemon Pepper seasoning blend
- 1 teaspoon grated Parmesan cheese
- 2 Medium Strawberry

PREPARATION

- 1. Use a biscuit or cookie cutter to cut the center out of the slice of bread to toast.
- 2. Spray both sides of bread and center

cut-out circle with olive oil cooking spray.

- 3. Heat a medium skillet and place both pieces of the cut bread in skillet. Break egg into center "hole" of cut-out portion. Season with lemon pepper.
- 4. Cook for 1 to 2 minutes and flip over to cook other side. Also, flip the cut-out circle of bread to toast on each side.
- 5. Sprinkle egg with Parmesan cheese.
- 6. Serve egg and toasted bread with a fresh strawberry garnish.

- 155 calories
- 9 grams of protein
- 6 grams total fat
- 2 grams saturated fat
- 0 grams trans fat
- 187 milligrams cholesterol
- 15 grams carbohydrates
- 1 grams fiber

- 224 milligrams sodium
- 138 milligrams potassium
- 144 milligrams phosphorus
- 118 milligrams calcium



PANCAKES

INGREDIENT

- 2 cups all-purpose flour
- 1 teaspoon baking soda
- 1/3 teaspoon salt
- 1 tablespoon sugar
- 2 eggs
- 2 cups 1% low-fat milk
- 2 tablespoon vegetable oil

DIRECTION

- 1. Make sour milk: add 1-tablespoon vinegar to 2 cups milk. Let sit for about 5 minutes until soured.
- 2. Sift flour; add baking soda, salt and sugar.
- 3. Beat eggs with mixer until fluffy. Combine with "sour" milk and oil.
- 4. Add dry ingredients and beat until smooth.
- 5. Cook on a hot griddle or heated frying pan, greased with nonstick cooking spray until bubbly. Turn only once for fluffy, light pancakes.
- 6. Topped with a serving size of Sugar-Free Syrup

NUTRITIONAL CONTENT PER SERVING

- 166 calories
- 6 grams of protein
- 5 grams total fat
- 1 grams saturated fat
- 0 grams trans fat
- 187 milligrams cholesterol
- 39 milligrams cholesterol
- 1 grams fiber

- 125 milligrams potassium
- 101 milligrams phosphorus
- 77 milligrams calcium

 ** Average sodium and phosphorus content in pancake/ waffle mix is 477 mg and 254 mg per serving. This recipe above will save you around 320 mg sodium and 150 mg phosphorus per serving.

243 milligrams sodium



BREAKFAST BURRITO

INGREDIENT

- 4 eggs
- 3 tablespoons Ortega green chilies, diced
- 1/4 teaspoon ground cumin
- 1/2 teaspoon hot pepper sauce
- 2 flour tortillas, burrito size

PREPARATION

- 1. Spray a medium-size skillet with nonstick cooking spray and heat over medium heat
- 2. In a bowl, beat eggs with green chilies, cumin and hot sauce. Pour eggs into skillet and cook and stir 1 to 2 minutes until eggs are done.
- 3. Heat tortillas for 20 seconds in microwave or in separate skillet over medium heat. Place half the egg mixture on each tortilla and roll up burrito style.

- 287 calories
- 0 grams trans fat
- milligrams sodium
- 15 grams of protein
- 327 milligrams cholesterol
- 125 milligrams potassium
- 12 grams total fat
- 28 grams carbohydrates
- 101 milligrams phosphorus
- 4 grams saturated fat
- 2 grams fiber
- 77 milligrams calcium



FRENCH TOAST

INGREDIENT

- 4 large egg whites, slightly beaten
- ¹/₄ cup 1% milk
- ¹/₂ teaspoon cinnamon
- ¹/₄ teaspoon allspice
- 4 slices white bread (may be toasted)
- Cooking spray

DIRECTION

- 1. Add milk, cinnamon and allspice to egg whites.
- 2. Dip breadinto batter one piece at a time.
- 3. Place on heated skillet, that has been sprayed with cooking spray
- 4. Turn bread after it is golden brown.
- 5. Serve hot with syrup (sugar free if diabetic)

- 140 calories
- 8 grams of protein
- 0 grams trans fat
- 197 milligrams sodium
- 164 milligrams cholesterol
- 115 milligrams potassium
- 5 grams total fat
- 14 grams carbohydrates



- 129 milligrams phosphorus
- 2 grams saturated fat
- 1 grams fiber
- 114 milligrams calcium

EGG WHITE VEGGIE MUFFINS

INGREDIENT

- 2 1/2 cup egg whites
- 1 whole yellow bell pepper, diced
- 1/2 pint of mushrooms
- Pepper to taste
- 1/4 tsp Cayenne (optional)
- Baby spinach
- Cooking spray

PREPARATION

- 1. Pre heat oven to 350 degrees
- 2. Spray one muffin pan with cooking spray
- 3. Place all the ingredients and spices in each muffin tin
- 4. Fill muffin tin with egg whites
- 5. Bake for 30 minutes or until eggs are fully cooked
- 6. Immediately remove and let cool on a rack

- 39 calories
- 0 grams trans fat
- 102 milligrams sodium
- 7 grams of protein
- 0 milligrams cholesterol
- 228 milligrams potassium
- 0 grams total fat
 - 2 grams carbohydrates



- 0 grams saturated fat
- 1 grams fiber
- 17 milligrams calcium



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SIDES AND SALADS

Life expectancy would grow by leaps and bounds if green vegetables smelled as good as bacon. ~Doug Larson

GREEK SALAD

INGREDIENT

- 1 Medium ripe tomatoes, chopped
- 2 cucumbers, peeled and chopped
- 1 small red onion, chopped
- 1 tsp olive oil
- 4 teaspoons lemon juice
- 1 1/2 teaspoons dried oregano
- Pepper to taste
- ¹/₂ cup crumbled low-fat feta cheese
- 6 black Greek olives, pitted and sliced

PREPARATION

- 1. Pre heat oven to 350 degrees
- 2. Spray one muffin pan with cooking spray
- 3. Place all the ingredients and spices in each muffin tin
- 4. Fill muffin tin with egg whites
- 5. Bake for 30 minutes or until eggs are fully cooked
- 6. Immediately remove and let cool on a rack

- 57 calories
- 2 grams of protein
- 10 grams trans fat
- 147 milligrams sodium
- 11 milligrams cholesterol
- 157 milligrams potassium
- 4 grams total fat
- 3 grams carbohydrates
- 62 milligrams phosphorus
- 2 grams saturated fat
- 1 grams fiber
- 81 milligrams calcium



RICE AND SWEET PEAS

INGREDIENT

- 2 cup of basmati rice
- 1 cup frozen sweet peas
- 1/4 cup fresh parsley
- 1 tbsp chopped fresh mint
- Pepper to taste

DIRECTION

- 1. Combine the 2 cups of rice, with 4 cups of water, in a pot and bring to a boil.
- 2. Cover with a tight-fitting lid, reduce heat to low-simmer, and cook 15 minutes.
- 3. Remove from heat (with lid on!) and steam for 10 minutes. Fluff with fork.
- 4. Stir in 1 cup of the frozen sweet peas
- 5. Add the chopped fresh parsley
- 6. Add the fresh mint, and stir all ingredients
- 7. Plate and serve

- 138 calories
- 4 grams of protein
- 0 grams trans fat
- 4 milligrams sodium
- 0 milligrams cholesterol
- 166 milligrams potassium
- 0 grams total fat
- 29 grams carbohydrates
- 84 milligrams phosphorus
- 0 grams saturated fat
- 3 grams fiber
- 27 milligrams calcium



MARINATED CUCUMBERS

INGREDIENT

- 1 large cucumber, peeled, and thinly sliced
- 1/2 medium onion
- 1/4 cup cider vinegar
- 3/4 cup cold
- Pepper to taste
- 1/4 teaspoon dill weed
- 1/4 teaspoon sugar
- 1/2 cup black olives, sliced

PREPARATION

- 1. Combine all ingredients into a large bowl
- 2. Stir to combine all ingredients
- 3. Chill for 20 minutes before serving
- 4. Drain marinate before serving
- 5. Enjoy

- 44 calories
- 0 grams trans fat
- 170 milligrams sodium
- 1 grams of protein
- 0 milligrams cholesterol
- 149 milligrams potassium
- 2 grams total fat
- 5 grams carbohydrates
- 23 milligrams phosphorus
- 0 grams saturated fat
- 2 grams fiber
- 41 milligrams calcium



CALABACITAS

INGREDIENT

- 2 tablespoons olive oil, divided
- 1 red onion, cut into 1/2-inch wedges
- 2 large garlic cloves, minced
- 3 medium yellow squash, halved lengthwise and thinly sliced
- 2 medium zucchini halved lengthwise and thinly
- 8 lime wedges
- 1/4 teaspoon cayenne (optional for extra



DIRECTION

- 1. Heat a large nonstick skillet over medium-high heat. Add 1-tablespoon oil to pan; swirl to coat. Add onion.
- 2. Cook 5 minutes or until edges are browned, stirring

add garlic last 1 minute of cook time. Remove onions/garlic from pan; keep warm.

- 3. Heat 1-tablespoon oil in pan. Add yellow squash and zucchini; cook 9 minutes or until edges are browned, stirring occasionally.
- 4. Combine the squash and zucchini with onion and garlic, and top with fresh lime juice
- 5. Plate and serve

- 54 calories
- 0 grams trans fat
- 6 milligrams sodium
- 2 grams of protein
- 0 milligrams cholesterol
- 335 milligrams potassium
- 4 grams total fat
- 5 grams carbohydrates
- 50 milligrams phosphorus
- 1 grams saturated fat
- 2 grams fiber
- 23 milligrams calcium

STEAMED ASPARAGUS

INGREDIENT

- 1 tablespoon lemon juice
- 2 cups water
- 12 fresh asparagus spear
- 2 tablespoons margerine, melted (unsalted)

PREPARATION

- 1. Add lemon juice to margarine; set aside.
- 2. Bring water to a boil in bottom of steamer.
- 3. Place asparagus in steamer over boiling water.
- 4. Steam for 2 minutes after asparagus turns bright green.
- 5. Remove and pour margarine with lemon juice over asparagus.
- 6. Serve.

NUTRITIONAL CONTENT PER SERVING

- 62 calories
- 1 grams of protein
- 0 grams trans fat
- 1 milligrams sodium
- 0 milligrams cholesterol
- 123 milligrams potassium
- 6 grams total fat
- 3 grams carbohydrates
- 32 milligrams phosphorus

Serves: 4 <u>Serving: 3</u> Spear

- 1 grams saturated fat
- 1 grams fiber
- 16 milligrams calcium

LEMON AND CORIANDER COUSCOUS

INGREDIENT

- 8 oz couscous
- 1 pint water
- 3 tablespoons of fresh coriander, chopped
- Grated rind and juice of 1 lemon
- 2 teaspoons of olive oil

DIRECTION

- 1. Bring the water to the boil in a saucepan.
- 2. Remove the pan from the heat and add the
- 3. Couscous. Stir briefly and cover with the pan lid.
- 4. Leave to stand for 5 minutes then fluff up with a fork.
- 5. Drizzle with the oil and add the finely chopped
- 6. coriander, lemon rind and juice. Season with
- 7. black pepper lemon rind and juice. Season with black pepper.

- 216 calories
- 0 grams trans fat
- 12 milligrams sodium
- 5 grams of protein
- 0 milligrams cholesterol
- 114 milligrams potassium
- 7 grams total fat
- 33 grams carbohydrates
- 37 milligrams phosphorus
- 1 grams saturated fat
- 3 grams fiber
- 28 milligrams calcium



GREEN GARDEN SALAD

INGREDIENT

- 4 cups red leaf or other lettuce, shredded
- 1 carrot, sliced
- 2 celery stalks, sliced
- 2 cucumbers, sliced
- 2 radishes, sliced
- 1 large bell peppers, diced or sliced into ring

PREPARATION

- 1. Combine vegetables in a large bowl and toss.
- 2. May serve with your favorite salad dressing.

- 30 calories
- 1 grams of protein
- 0 grams total fat
- 0 grams saturated fat
- 0 grams trans fat
- 0 milligrams cholesterol
- 4 grams carbohydrates
- 1 grams fiber



- 20 milligrams sodium
- 215 milligrams potassium
- 29 milligrams phosphorus
- 25 milligrams calcium

HUMMUS

INGREDIENT

- 1 (16-ounce) can chickpeas (garbanzo beans), drained and rinsed
- 1 medium garlic clove, peeled and smashed
- 1/4 tablespoon onion powder
- 1/4 cup Lemon juice
- 1/4 cup water, plus more as needed
- 1 tablespoon extra-virgin olive oil, plus more to serve
- 1 teaspoon cayenne pepper (optional)



DIRECTION

- 1. Place all ingredients into your food processor or blender and blend until smooth
- 2. If hummus is too thick, pulse in more water, a tablespoon at a time, until the desired consistency is reached.
- 3. To serve, place in a bowl and drizzle with olive oil.

- 115 calories
- 5 grams of protein
- 4 grams total fat
- 0 grams saturated fat
- 0 grams trans fat
- 0 milligrams cholesterol
- 17 grams carbohydrates
- 4 grams fiber

- 119 milligrams sodium
- 178 milligrams potassium
- 81 milligrams phosphorus
- 31 milligrams calcium

ENCHILADA SAUCE

INGREDIENT

- Tablespoon canola oil
- 14 ounces low-sodium canned diced tomatoes
- 1/8 teaspoon garlic powder
- 1 teaspoon chili powder
- 1/4 teaspoon salt
- 1 teaspoon cornstarch

PREPARATION

- 1. Drain tomatoes.
- 2. Heat oil in skillet. Stir in diced tomatoes, garlic powder, 1 teaspoon chili powder and salt.
- 3. In a small cup, mix together cornstarch with 1/2 cup water. Stir until smooth.
- 4. Add the cornstarch mixture to hot tomatoes while stirring to blend well.
- 5. Reduce heat and simmer until thickened.
- 6. Taste and add more chili powder if desired.

NUTRITIONAL CONTENT PER SERVING

- 69 calories
- 1 grams of protein
- 0 grams trans fat
- 105 milligrams sodium
- 0 milligrams cholesterol
- 153 milligrams potassium
- 5 grams total fat
- 5 grams carbohydrates
- 15 milligrams phosphorus

Serves: 1 1/2 of sauce

Serving: 1/4 cup

- 0 grams saturated fat
- 0.3 grams fiber
- 22 milligrams calcium



ENTREES

Let food be thy medicine and medicine be thy food. ~Hippocrates

ROASTED SALMON WITH LEMON AND DILL

INGREDIENT

- 4 (3-4 oz.) salmon fillets
- 1/4 teaspoon freshly ground pepper
- 8 fresh dill sprigs
- 4 lemon slices, halves

PREPARATION

- 1. Preheat oven to 425
- 2. Place Salmon fillets on a lightly greased rack on an aliminum foil-lined cookie sheet
- 3. Sprinkle with pepper
- 4. Place 2 dill sprigs and 2 lemon halves on each fillet
- 5. Bake at 424 for 15-20 minutes or just until fish

- 112 calories
- 24 grams of protein
- 0 grams trans fat
- 164 milligrams sodium
- 45 milligrams cholesterol
- 81 milligrams potassium
- 2 grams total fat
- 2 grams carbohydrates



- 215 milligrams phosphorus
- 0 grams saturated fat
- 0 grams fiber
- 0 milligrams calcium

BLACK BEAN LETTUCE WRAP TACOS WITH MANGO SALSA

INGREDIENT

For the tacos:

- 1 tablespoon olive oil
- 1 clove garlic
- 1/2 onion, finely diced (yellow or red)
- 14 oz. can black beans, drained or rinsed (or about 1 1/2 cups cooked)
- 6 leaves bibb or iceberg lettuce

For the taco seasoning:

- 1/2 tablespoon chili powder
- 1/2 tablespoon smoked paprika
- 1/2 tablespoon cumin
- 1/4 tablespoon oregano
- 1/4 tablespoon ground black pepper
- 1/4 tablespoon cornstarch
- 1/8 tablespoon cayenne pepper
- 1/4 cup water

For the mango avacado salsa:

- 1 mango, peeled and diced
- 1 avacado, peeled and diced
- 1/2 cucumber, peeled and diced
- 1/2 jalapeno, seeds removed and minced
- 1/4 red onion, diced
- 1 tablespoon lime juice
- 1/3 cup chopped cilantro leaves



DIRECTION

- 1. First prepare the salsa. Combine all ingredients in a bowl and mix well. Add salt and pepper to taste. Set aside.
- 2. In a small bowl, combine all taco-seasoning ingredients. The tacos come together quickly, so I like to do this before anything goes on the stove.
- 3. Add olive oil to a large pan over medium heat. Once shimmering, add garlic and onion and sauté until soft, 4-5 minutes.
- 4, Pour in black beans and taco seasoning and stir to coat. Sauté, stirring occasionally, until beans are heated through and some of the water is evaporated, 2-3 minutes.
- 5. Serve with lettuce leaves to be used as taco shells
- 6. Enjoy!

- 115 calories
- 0 grams trans fat
- 117 milligrams sodium
- 4 grams of protein
- 0 milligrams cholesterol
- 397 milligrams potassium
- 5 grams total fat
- 17 grams carbohydrates
- 78 milligrams phosphorus
- 1 grams saturated fat
- 6 grams fiber
- 38 milligrams calcium

PORK SLOW COOKER STYLE

INGREDIENT

- 1 (3 pound) boneless pork shoulder
- 1 cup water
- ¹/₄ cup vinegar
- 1 large onion, cut into slices
- 1 Tablespoon ground cumin
- 1 Tablespoon ground mustard
- 1 Tablespoon chili powder
- ¹/₂ cup brown sugar

Serves: 10 Serving: 1/2 cup of Meat

DIRECTION

- 1. Place the pork shoulder into the slow cooker and cover with onions.
- 2. Mix the cumin, mustard, chili powder ad brown sugar with the vinegar and water. Pour the mixture over the pork and onions.
- 3. Cook on Low for 8 to 10 hours until the pork is tender and falls apart easily.
- 4. Once pork is cooked thoroughly, remove carefully to a cutting board
- 5. Shred the meat with a pair of forks, and discard any or all excess fat
- 6. Serve with your favorite sides

- 122 calories
- 0 grams trans fat
- 61 milligrams sodium
- 6 grams of protein
- 24 milligrams cholesterol
- 147 milligrams potassium
- 6 grams total fat
- 9 grams carbohydrates
- 70 milligrams phosphorus
- 2 grams saturated fat
- 1 grams fiber
- 24 milligrams calcium

CRAB CAKES

INGREDIENT

- 1 egg (egg substitute or egg white optional)
- ¹/₃ cup green or red pepper, finely chopped
- ¹/₃ cup low sodium crackers
- ¹/₄ cup reduced fat mayonnaise
- 1 tablespoon dry mustard
- 1 teaspoon crushed red pepper or black pepper
- 2 tablespoons lemon juice
- 1 teaspoon garlic powder
- 2 tablespoon olive oil

Serves: 6 Patties Serving: 1 Patty

PREPARATION

- 1. Combine all ingredients.
- 2. Divide into 6 balls and form patties.
- 3. Heat vegetable oil in pan at medium heat or oven at 350° F
- 4. Fry patties 4-5 minutes or bake 15 minutes in oven.
- 5. Serve warm

- 101 calories
- 0 grams trans fat
- 67 milligrams sodium
- 2 grams of protein
- 41 milligrams cholesterol
- 72 milligrams potassium
- 9 grams total fat
- 5 grams carbohydrates
- 43 milligrams phosphorus
- 1 grams saturated fat
- 0 grams fiber
- 16 milligrams calcium

CHICKEN SOUP

INGREDIENT

- 1 mwdium onion chopped
- 3 cloves garlic minced
- 1 T. olive oil
- 2 tablespoon chili powder
- 1 tablespoon oregano or Italian seasoning
- 2 fresh tomatoes chopped
- 10 oz. can low sodium chicken broth
- 10 oz. can water
- 1 c. corn
- 1 c. hominy
- 4 oz. can green chili peppers chopped
- 1/4 c. chopped cilantro
- 3 chicken breasts cooked and chopped
- Lemon juice to taste
- Cumin to taste

DIRECTION

- 1. Sauté onion and garlic in oil.
- 2. Stir in chicken, chili powder, oregano (or Italian seasoning) tomatoes, chicken broth, water, corn, hominy, cilantro, and chili peppers and cook on medium-high heat for 30 minutes.
- 3. May add lemon juice and cumin to taste.



- 154 calories
- 17 grams of protein
- 0 grams trans fat
- 37 milligrams cholesterol
- 37 milligrams cholesterol
- 285 milligrams potassium
- 3 grams total fat
- 15 grams carbohydrates
- 64 milligrams phosphorus
- 1 grams saturated fat
- .3 grams fiber
- 28 milligrams calcium

FAJITAS

INGREDIENT

- 2 tablespoon vegetable oil
- 1 ½ pounds raw chicken strips or beef strips or shrimp (peeled and deveined)
- 2 teaspoon chili powder
- ¹/₂ teaspoon cumin
- 2 tablespoon lemon or lime juice
- ¹/₄ green/ red pepper, sliced lengthwise
- ¹/₂ onion white, sliced lengthwise
- ¹/₂ teaspoon dry cilantro154
- 4 flour tortillas
- Vegetable spray

DIRECTION

- 1. Preheat oven to 300° F.
- 2. Add vegetable oil to non-stick frying pan over medium heat.
- 3. Add meat, seasonings and lemon/lime juice; cook for 5-10 minute or until tender
- 4. Add pepper and onion to pan and cook 1-2 minutes.
- 5. Remove from heat; add cilantro.
- 6. Place tortillas on foil and move to oven. Heat for 10 minutes
- 7. Divide mixture between tortillas, wrap and serve

NUTRITIONAL CONTENT PER SERVING

- 184 calories
- 0 grams trans fat
- 121 milligrams sodium
- 19 grams of protein
- 57 milligrams cholesterol
- 494 milligrams potassium
- 10 grams total fat
- 5 grams carbohydrates
- 207 milligrams phosphorus
- 1 grams saturated fat
- 1 grams fiber
- 38 milligrams calcium



Serves: 4

STUFFED GREEN PEPPERS

INGREDIENT

- 2 tablespoon olive oil
- ¹/₂ pound ground lean beef, turkey or chicken
- ¹/₄ cup onions, chopped
- ¹/₄ cup celery, chopped
- 2 tablespoons lemon juice
- 1 tablespoon celery seed
- 2 tablespoons Italian seasoning
- 1 teaspoon black pepper
- ¹/₂ teaspoon sugar substitute
- ¹/₂ cup panko bread crumbs
- 6 small green peppers, seeded with tops removed
- paprika

PREPARATION

- 1. Preheat oven to 325° F.
- 2. Heat oil in saucepan.
- 3. Add ground meat to saucepan; cook until meat is browned.
- 4. Add, onions, and celery, cook until translucent in color.
- 5. Add all ingredients except green peppers and paprika to the saucepan. stir together, remove from heat.
- 6. Stuff peppers with mixture. Wrap with foil or place in a oven safe dish and cover.
- 7. Bake for 30 minutes. Remove and sprinkle with paprika



- 131 calories
- 9 grams of protein
- 0 grams trans fat
- 28 milligrams cholesterol
- 36 milligrams sodium
- 160 milligrams potassium
- 4 grams total fat
- 15 grams carbohydrates
- 83 milligrams phosphorus
- 1 grams saturated fat
- 1 grams fiber
- 38 milligrams calcium

SPICY LAMB

INGREDIENT

- ¹/₄ cup vegetable oil
- 1 ¹/₂ tablespoons garlic powder
- 3 teaspoons dry mustard
- 1 leg of lamb (trimmed for roasting)

PREPARATION

- 1. Blend ingredients for marinade: oil, garlic powder and mustard
- 2. Coat leg of lamb with marinade; refrigerate 6-8 hours overnight.
- 3. Adjust meat on barbecue spit and roast for 30 minutes per pound or until 170 degrees F on meat thermometer, basting meat continuously with marinade.

- 289 calories
- 0 grams trans fat
- 144 milligrams sodium
- 24 grams of protein
- 73 milligrams cholesterol
- 423 milligrams potassium
- 6 grams total fat
- 3 grams carbohydrates



- 237 milligrams phosphorus
- 2 grams saturated fat
- 0 grams fiber
- 14 milligrams calcium

OPEN-FACED STEAK & ONION SANDWICH

INGREDIENT

- 4 chopped steaks (4-ounces each)
- 1 tablespoon lemon juice
- 1 tablespoon Italian seasoning
- 1 tablespoon black pepper
- 1 tablespoon olive oil
- 1 medium onion, sliced into rings
- 4 slices of wheat bread

DIRECTION

- 1. Combine meat with lemon juice, Italian seasoning and black pepper.
- 2. Heat oil in frying pan over medium heat.
- 3. Brown seasoned steaks on both sides until tender. Remove and drain on paper towels. Lower heat; add onion and sauté until onions are tender.
- 4. Serve open-faced on a slice of wheat bread

- 345 calories
- 14 grams of protein
- 0 grams trans fat
- 40 milligrams cholesterol
- 247 milligrams sodium
- 200 milligrams potassium
- 21 grams total fat
 - 26 grams carbohydrates
- 115 milligrams phosphorus
- 7 grams saturated fat
- 2 grams fiber
- 98 milligrams calcium



HUEVOS CON CHILES (EGGS WITH CHILES)

INGREDIENT

- 8 eggs
- 2- Tablespoon 2% milk
- 2-Tablespoon Water
- 1/8 Teaspoon black pepper
- 1/4 oz. canned diced green chilies rinsed
- 2 tablespoons olive oil
- 1/4 cup onion, chopped

PREPARATION

- 1. In bowl, beat eggs together with milk and water. Stir in black pepper and chilies. Set aside.
- 2. Olive oil in skillet over medium heat.
- 3. Add onion, cook until soft.
- 4. Add egg-chili mixture. Cook with heat reduced to low. Stir occasionally.
- 5. Eggs should be scrambled slowly and gently.

- 203 calories
- 0 grams trans fat
- 254 milligrams sodium
- 12 grams of protein
- 328 milligrams cholesterol
- 205 milligrams potassium
- 15 grams total fat
- 5 grams carbohydrates
- 189 milligrams phosphorus
- 4 grams saturated fat
- 1 grams fiber
- 72 milligrams calcium



CHICKEN 'N ORANGE SALAD SANDWICH

INGREDIENT

- 1 cup chopped Cooked Chicken
- 1/4 cup Onion (finely sliced)
- 1/2 cup Celery (diced)
- 1 cup Mandarin Oranges
- 1/2 cup Green Pepper (oranges)
- 1/3 cup Mayonnaise

DIRECTION

- 1. Toss chicken, celery, green pepper, and onion to mix.
- 2. Add mandarin oranges and mayonnaise.
- 3. Mix gently.
- 4. Serve on bread.

NUTRITIONAL CONTENT PER SERVING

- 58 calories
- 7 grams of protein
- 0 grams trans fat
- 22 milligrams cholesterol
- 127 milligrams sodium
- 149 milligrams potassium
- 1 grams total fat
- 3 grams carbohydrates



Serves: 6

Serving: 2/3 cup

- 58 milligrams phosphorus
- 0 grams saturated fat
- 1 grams fiber
- 9 milligrams calcium

MUSTARD-CRUSTED SALMON

INGREDIENT

- 1 1/4 pounds' center-cut salmon fillets, cut into 4 portions
- 1/4 cup reduced-fat sour cream
- 2 tablespoons stone-ground mustard
- 2 teaspoons lemon Juice
- Freshly ground pepper, to taste Lemon Wedges

PREPARATION

- 1. Preheat boiler. Line a boiler pan or baking sheet with foil then coat it with cooking spray.
- 2. Place salmon pieces, skin-side down, on the prepared pan. Season with salt and pepper.
- 3. Combine sour cream, mustard and lemon juice in a small bowl. Spread evenly over the salmon.
- 4. Broil the salmon 5 inches from the heat source until it is opaque in the center, 10 to 12 minutes. Serve with lemon wedges

- 280 calories
- 0 grams trans fat
- 113 milligrams sodium
- 28 grams of protein
- 81 milligrams cholesterol
- 511 milligrams potassium
- 17 grams total fat
- 2 grams carbohydrates
- 321 milligrams phosphorus
- 4 grams saturated fat
- 0 grams fiber
- 44 milligrams calcium


GREEN CHILE STEW

INGREDIENT

- 1/2 cup all-purpose flour
- 1 tablespoon garlic powder
- 1 teaspoon black pepper
- 1 pound lean pork chops
- 1 tablespoon olive oil
- 8 ounces canned green chili peppers
- 1 garlic clove
- 14 ounces low-sodium chicken broth

DIRECTION

- 1. In a large zip-top plastic bag combine flour, garlic powder and black pepper; mix well.
- 2. Cut pork into bite size cubes. Place pork
- in the bag and shake to coat well with flour mixture.
- 3. Heat olive oil in a large skillet and brown pork pieces.
- 4. Drain chili peppers and dice. Mince garlic clove.
- 5. Place browned pork, chili peppers, garlic and chicken broth into a slow cooker. Cook for 10 hours on low heat.
- 6. Place 3/4 cup of stew on a tortilla and roll burrito style.

- 420 calories
- 0 grams trans fat
- 552 milligrams sodium
- 25 grams of protein
- 45 milligrams cholesterol
- 454 milligrams potassium
- 16 grams total fat
- 44 grams carbohydrates
- 323 milligrams phosphorus
- 2 grams saturated fat
- 3.2 grams fiber
- 90 milligrams calcium



CHICKEN ENCHILADAS

INGREDIENT

- 2 tablespoons canola oil
- 12 corn tortillas, 6" size
- 3 cups chicken breast, cooked, shredded
- 2/3 cup green onion, finely chopped
- 1/2 cup light sour cream
- 1 1/2 cups enchilada sauce (see Enchilada Sauce recipe)



PREPARATION

- 1. Preheat oven to 375° F.
- 2. Heat oil in a skillet.
- 3. Quickly dip each tortilla into skillet to soften, and then remove to a plate.
- 4. In the center of each tortilla place 1/4-cup shredded chicken, 1-tablespoon onion and 2-teaspoons sour cream.
- 5. Roll up and place each enchilada in a baking dish.
- 6. Cover with 1-1/2 cups enchilada sauce.
- 7. Place baking dish in the oven and heat for 20 to 30 minutes or until hot.

- 334 calories
- 0 grams trans fat
- 169 milligrams sodium
- 23 grams of protein
- 54 milligrams cholesterol
- 450 milligrams potassium
- 14 grams total fat
- 29 grams carbohydrates
- 331 milligrams phosphorus
- 2 grams saturated fat
- 3.7 grams fiber
- 86 milligrams calcium

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DESSERTS

Dear friend, I hope all is well with you and that you are as healthy in body as you are strong in spirit. ~The Bible

STRAWBERRY SORBET

INGREDIENT

- 1 cup frozen or fresh strawberries
- 1 tablespoon lemon juice
- 1/4 cup water
- 1 1/4 cup ice

PREPARATION

- 1. Place ice in blender
- 2. Add all ingredients
- 3. Turn speed to crush or liquefy

- 12 calories
- 0 grams trans fat
- 2 milligrams sodium
- 0 grams of protein
- 0 milligrams cholesterol
- 59 milligrams potassium
- 0 grams total fat
- 3 grams carbohydrates



- 9 milligrams phosphorus
- 0 grams saturated fat
- 1 grams fiber
- 7 milligrams calcium

7 UP[®] POUND CAKE

INGREDIENT

- 2 sticks margarine
- 1/2 cup vegetable shortening
- 3 cups sugar
- 5 eggs
- 1 teaspoon lemon extract
- 3 cups all-purpose flour
- 7 ounces 7-up[®] soda

DIRECTION

- 1. Preheat oven to 300° F.
- 2. Cream margarine, shortening and sugar together.
- 3. Add eggs, one at a time, beating well after each addition; add lemon extract.
- 4. Add about one-third of the flour and alternate with a portion of 7-up[®].
- 5. Beat well after each addition; continue until total amount is added to batter.
- 6. Bake in a greased and floured 10" tube pan for 1 $\frac{1}{2}$ hours or until wooden toothpick inserted in center comes out clean

- 229 calories
- 1.3 grams trans fat
- 110 milligrams sodium
- 6 grams of protein
- 147 milligrams cholesterol
- 60 milligrams potassium
- 12 grams total fat
- 26 grams carbohydrates
- 28 milligrams phosphorus
- 3 grams saturated fat
- 0 grams fiber
- 21 milligrams calcium



CREAMY STRAWBERRY

INGREDIENT

- 12 RITZ[®] low-sodium cracker
- 1/4 cup whipped mixed berry
- 3 medium sized strawberries sliced
- 12 blueberries

PREPARATION

- 1. Spread each cracker with a 1 teaspoon of the cream cheese spread.
- 2. Top with a single strawberry slice, and a blueberry.
- 3. Serve immediately

- 63 calories
- 0 grams trans fat
- 76 milligrams sodium
- 1 grams of protein
- 11 milligrams cholesterol
- 55 milligrams potassium
- 4 grams total fat
- 6 grams carbohydrates



- 28 milligrams phosphorus
- 2 grams saturated fat
- 1 grams fiber
- 18 milligrams calcium

FRUIT SALAD

INGREDIENT

- 2 cups canned fruit cocktail, drained
- 1 cup canned pineapple chunks, drained
- 1 cup whole or sliced strawberries, hulled
- 1 cup apple, peeled, cored and diced
- 1 cup marshmallows
- 1/2 cup non-dairy whipped topping

DIRECTION

- 1. Combine all fruits together..
- 2. Add marshmallows and whipped topping; and mix well.
- 3. Refrigerate and serve chilled.

- 57 calories
- 0 grams trans fat
- 9 milligrams sodium
- 1 grams of protein
- 0 milligrams cholesterol
- 120 milligrams potassium
- 0 grams total fat
- 14 grams carbohydrates



- 15 milligrams phosphorus
- 0 grams saturated fat
- 1 grams fiber
- 14 milligrams calcium

APPLESAUCE BROWNIES

INGREDIENT

- 1/3 cup Olive Oil
- ¹/₂ cup Unsweetened Applesauce
- ¹/₂ cup Unsweetened Cocoa Powder
- ¹/₄ cup Stevia
- 1 cup All-purpose Flour
- 1 tsp. Baking Powder
- ½ tsp. Baking Soda
- 2 large Eggs
- 1 tsp. Vanilla Extract
- ¹/₄ cup Chopped Nuts (optional)

PREPARATION

- 1. Preheat oven to 375 F.
- 2. Combine oil, applesauce and cocoa. Add sugar and stir until dissolved.
- 3. Add eggs and vanilla. Mix dry ingredients together and stir into the mixture.
- 4. Pour the batter into a greased and floured; (or wax paper lined & sprayed)9 inch square pan. Sprinkle on nuts (optional).
- 5. Bake about 20 to 30 minutes or until top is set but edges are not dried out.
- 6. Toothpick will come out clean.
- 7. Cut into 16 or 24 squares.

- 135 calories
- 3 grams of protein
- 0 grams trans fat
- 80 milligrams sodium
- 23 milligrams cholesterol
- 104 milligrams potassium 9 grams total fat
- 9 granns total lat
- 14 grams carbohydrates
- 74 milligrams phosphorus
- 1 grams saturated fat
- 2 grams fiber
- 33 milligrams calcium



FROSTED GRAPES

INGREDIENT

- 2 pounds of Seedless grapes
- 1 (3 ounce) package cherry flavored Jell-0[®] package

DIRECTION

- 1. Pluck grapes from their stems and rinse in a colander without drying.
- 2. Place grapes into a container
- 3. Pour the gelatin mix on top of the grapes
- 4. Securely place a lid on the container and shake until the grapes are evenly covered.
- 5. Transfer the grapes to a pretty dish
- 6. Refrigerate for 1 hour to allow the gelatin to set

- 88 calories
- 1 grams of protein
- 0 grams trans fat
- 11 milligrams sodium
- 0 milligrams cholesterol
- 105 milligrams potassium
- 0 grams total fat
- 22 grams carbohydrates



- 30 milligrams phosphorus
- 0 grams saturated fat
- 1 grams fiber
- 11 milligrams calcium

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HELPFUL WEBSITES

GENERAL CKD INFORMATION:

American Association of Kidney Patients (AAKP) https://aakp.org/ The National Kidney Foundation (NKF) https://www.kidney.org/ American Kidney Fund (AKF) http://www.kidneyfund.org/ Davita Kidney Care https://www.davita.com/ Fresenius Kidney Care https://www.freseniuskidneycare.com/ National Institute of Diabetes and Digestive Health and Kidney Diseases (NIDDHK) https://www.niddk.nih.gov/health-information/kidney-disease Kidney School http://www.kidneyschool.org/ **NUTRITION & RECIPES** National Kidney Foundation of AZ Cookbook https://azkidney.org/cookbook Eating Well (Fresenius Medical Care) https://www.freseniuskidneycare.com/myfoodcoach

National Kidney Foundation: DASH diet https://www.kidney.org/atoz/content/Dash_Diet

Davita Kidney Care: Recipes https://www.davita.com/recipes/

KidneyGrub http://www.kidneygrub.com/

AAKP: Kidney Friendly Recipes https://aakp.org/kidney-friendly-recipies/

REFERENCES

- Accessed June 24, 2016: https://nccd.cdc.gov/ckd/help.aspx?section=F
- Accessed June 28, 2016: https://azkidney.org/latest-news/7-steps-protect-your-kidneys
- Accessed June 23, 2016: https://www.davita.com/kidney-disease/diet-and-nutrition/ diet%20basics/potassium-and-chronic-kidney- disease/e/5308
- Accessed June 23, 2016: https://www.kidney.org/atoz/content/potassium
- Accessed Jun 24, 2016: https://www.kidney.org/
- Accessed June 24, 2016: http://www.niddk.nih.gov/health-information/healthcommunication-programs/nkdep/a-z/nutrition- sodium/Documents/nutritionsodium-508.pdf
- Accessed June 24, 2016: http://www.niddk.nih.gov/health-information/healthcommunication-programs/nkdep/a-z/nutrition- sodium/Documents/nutritionsodium-508.pdf
- Accessed June 28, 2016: http://www.kidneybuzz.com/sodas-and-drinks-that-chronickidney-disease-and-diabetic-patients-can- enjoy-or-should-avoid/2014/5/27/sodasand-drinks-that-chronic-kidney-disease-and-diabetic-patients-can-enjoy-or-shouldavoid
- Accessed July 3 2016: https://www.fda.gov/Food/IngredientsPackagingLabeling/ LabelingNutrition/ucm274593.htm
- Accessed July 28 2016: http://www.consultant360.com/n411/renal-center-health-careprofessionals/articles/exercise-creating- program-chronic-kidney-disease

- Mahan, L. Kathleen (2011-08-24). Krause's Food & the Nutrition Care Process (Food, Nutrition & Diet Therapy) (Krause's) Elsevier Health.
- Accessed August 1, 2016: https://www.davita.com/recipes/
- Accessed December 23, 2016: https://www.kidney.org/sites/default/files/docs/kidney_ cookbook_lr.pdf
- Accessed October 29, 2017: http://www.renalandurologynews.com/chronic-kidneydisease-ckd/mediterranean-diet-chronic-kidney-disease-ckd-risk/article/380459/
- Accessed October 29, 2017: http://blogs.davita.com/kidney-diet-tips/low-potassiumpotatoes-for-your-kidney-diet-no-soaking-required/
- Accessed December 5, 2017: http://www.dpcedcenter.org/classroom/nutritionmanagement-kidney-disease-patients/following-diet-diabetes-and-kidney-disease
- Accessed December 5, 2017: https://ndb.nal.usda.gov/ndb/
- All pictures purchased from http://www.123rf.com/