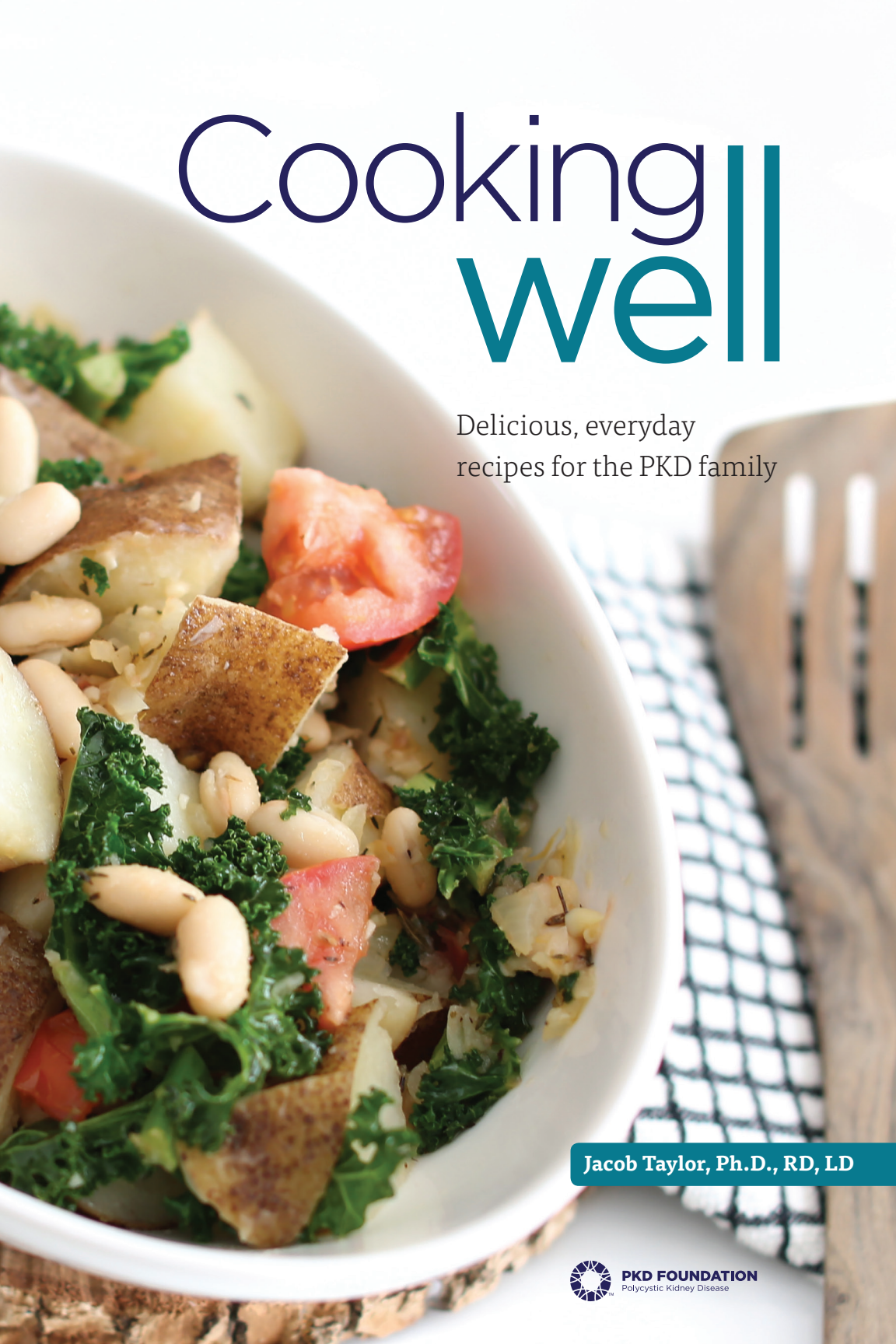
Cooking well

Delicious, everyday
recipes for the PKD family



Jacob Taylor, Ph.D., RD, LD

PKD FOUNDATION
Polycystic Kidney Disease

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ABOUT THE PKD FOUNDATION

The PKD Foundation is dedicated to finding treatments and a cure for polycystic kidney disease (PKD) to improve the lives of those it affects. We do this by funding research and promoting education, advocacy, support and awareness.

Our vision is that one day no one will suffer the full effects of PKD. Visit **pkdcure.org** to learn more.

PKD FOUNDATION
Polycystic Kidney Disease

A Note From the **Author**

After becoming a dietitian in 2011, I moved to Kansas City, Missouri, to complete my Ph.D. in Medical Nutrition Science at the University of Kansas Medical Center. As a first-year Ph.D. student, I was given the task of selecting a research topic for my dissertation, a choice that may ultimately define my career. At that time, I was working as a pediatric nephrology dietitian at Children's Mercy Hospital in Kansas City, so doing research in kidney disease was of significant interest. Fortunately, I was approached by physician-scientist and PKD Foundation co-founder Jared Grantham, M.D., to design a diet for patients with PKD. Needless to say, with my background in clinical nutrition, I was intrigued by the possibility of designing a diet based on scientific evidence that would benefit patients.

Dr. Grantham thought that because certain dietary elements may potentially affect the kidneys of individuals with PKD, a special diet should be designed and prescribed early in the course of the disease. Together, we developed a diet that would limit potentially harmful dietary elements, like excessive intakes of sodium and protein, and add more elements that may protect the kidney, like fruits, vegetables and fluids. This cookbook is not just a cookbook of delicious, healthy foods, but is based on the research of many scientists working to understand how diet may be used as a therapy for PKD patients. These recipes adhere to a set of dietary goals based on that research.

After finishing my doctorate in 2015, I relocated to Groningen, the Netherlands, to complete my post-doctorate training at the University Medical Center Groningen in its Expertise Center for PKD research. My work continues to be centered on understanding how diet may affect cyst growth and kidney damage in PKD and how making dietary changes may help protect the kidney.

It is my hope that this cookbook provides those with PKD, who are looking to play an active role in their disease, a helpful hand in understanding how to change their diet, with recipes to suit.

Kindest regards (Met vriendelijke groet),
Jacob Taylor, Ph.D., RD, LD

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Nutrition Guidelines for **Individuals Living With ADPKD**

Your goal as someone living with PKD should be to maintain a healthy lifestyle and to protect your kidneys as best you can. Autosomal dominant PKD (ADPKD) researchers are currently examining the potential role that diet may play in protecting your kidneys. Several dietary factors have been shown to be harmful to individuals with PKD.[1-11] For example, eating too much sodium and animal protein may be harmful to your kidneys, along with having low HDL cholesterol levels (HDL is the good cholesterol) and carrying around extra body weight.[1,2,8,11] Caffeine should also be limited.[9,10] On the other hand, drinking water and eating fruits and vegetables may play a role in protecting your kidney.[2-7,12-14,15]

The following is a general set of guidelines to help you eat healthy while living with PKD. Doing these things will help cut down the workload of your kidneys and help preserve your kidney function. Your doctor and/or dietitian may prescribe different guidelines depending on your health and lab values. See page 110 for more on the difference between a dietitian and nutritionist.

GOALS OF LIVING WITH A PKD DIET

- Supress a hormone known as vasopressin, which causes cysts to grow.[6]
- Keep your cholesterol levels in normal range, especially HDL (good cholesterol).[1]
- Maintain a healthy body weight. [1]
- Reduce the dietary acid load of your diet.[2,3,12-15]
- Limit caffeine consumption.[9,10]
- Prevent diabetes and prevent or control high blood pressure. Both of these conditions are harmful to the kidneys.[16]

GENERAL DIET GUIDELINES

MAINTAIN A HEALTHY WEIGHT

One goal to strive for when trying to be healthy is to maintain a healthy body weight. For an individual without PKD, a healthy body weight is measured by determining your body mass index (BMI). Your BMI is simply a measure of how much you weigh compared to how tall you are. Having a BMI between 18.5 and 24.9 is ideal. However, because many PKD patients have large, heavy kidneys due to cysts, it is not always appropriate to use body weight or BMI as a measurement tool. PKD patients often refer to this as having a "PKD belly," in reference to having a large midsection caused by their cystic kidneys. There is little you can do to make this go away, but adopting a healthy diet and daily exercise will ensure you are as healthy as you can be. Rather than focusing solely on the number on the scale, we encourage you to stay as healthy as possible by focusing on healthy eating behaviors and exercising regularly. If you would like to have a target weight or BMI, please work with your physician or dietitian to come to an agreed-upon number. Read on to learn nutrition guidelines created for PKD patients to address your unique needs.

SODIUM

High-sodium diets raise levels of vasopressin, a hormone that may be harmful to cystic kidneys, in the body.[1,6] People primarily consume sodium in the form of salt. The majority of sodium — approximately 75 percent — in the American diet comes from processed and packaged foods.[18] When at the grocery store, remember to check the nutrition label for sodium content. If you're eating out, most restaurants will have their nutrition information posted online. This information will list sodium content for all of their food items. **You should limit yourself to**

Nutritional Facts
Serving Size 1 cup
Servings Per Container 2

Amount Per Serving
Calories 250 Calories from Fat 110

	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 360mg	**15%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Protein 5g	

Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron 4%	

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

2,000 milligrams of sodium per day. A general guideline to keep from going over this would be to limit meals to 500 milligrams of sodium and snacks to 200 milligrams. This will not only help keep vasopressin levels low, it also may help keep your blood pressure in the normal range, making it a dietary component worth paying attention to.

PROTEIN

Overall, protein should be limited based on your body weight.[1,2,8,11] To calculate your protein needs, all you need to know is your height in inches, which can be put into the following formula:

Daily Protein Needs (grams per day)
(21.7 x (height in inches)^2 / 703) x 0.36

Example: If Bob is 5 feet, 10 inches (70 inches), his protein needs would be calculated as follows:

Step 1: (70 inches)^2 = 4,900

Step 2: (21.7 x 4900) = 106,330

Step 3: (106,330 / 703) = 151

Step 4: 151 x 0.36 = 54 grams per day

Bob should try to consume 54 grams of protein each day.

Following this calculation will ensure that you meet your protein needs while preventing excess protein intake from harming your kidneys. Animal-source proteins (chicken, pork, beef, fish, eggs, cheese/milk, etc.) can certainly be part of your diet, but **should be limited to approximately three-ounce portions at meal times or no more than six ounces per day** (weight is after cooking). Try to include fatty fish, like salmon, as your protein choice at least two times per week.

POTASSIUM

Potassium may play an important role in protecting the kidneys by reducing your dietary acid load.[2,3,12-15] Not to be confused with acidic foods (like lemons), dietary acid load is a measure of the

amount of protein-to-potassium an individual eats.[19] Basically, dietary acid load is high in individuals whose diets consist of moderate to large amounts of meat (protein) with minimal intake of fruits and vegetables (potassium), making fruits and vegetables a critical component of your diet. See page 13 for more information about dietary acid load. Potassium is also an important nutrient for keeping your blood pressure in the normal range.[20] The **recommended potassium intake is 4,700 milligrams a day.**[21] As your kidney function declines, you may need to start restricting potassium; however, your physician will notify you of this at that time. To meet your daily requirements, you should aim for eating at least one fruit or vegetable at every meal, and make sure at least some of those are green and leafy, such as spinach, kale or broccoli.

FLUIDS

Drinking fluids is very important for keeping your kidneys healthy. Like reducing your sodium intake, staying hydrated will keep your vasopressin levels low.[5-7] For adults, **at least three liters (100 ounces) a day is recommended and should be spread out over the course of the day.**[5] These fluids should **primarily be from non-caffeinated beverages**.[9] See page 11 for additional information about water and ADPKD.

Serving Equivalent	
Dairy or Substitute Products	**Amount That Counts as a Cup in the Dairy Group**
Milk (choose fat-free or low-fat milk)	1 cup milk
	1 half-pint container milk
	½ cup evaporated milk
Yogurt (choose fat-free or low-fat yogurt)	1 regular container (8 fluid ounces)
	1 cup yogurt
Cheese (choose reduced-fat or low-fat cheeses)	1 ½ ounces hard cheese (cheddar, mozzarella, Swiss, Parmesan)
	⅓ cup shredded cheese
	2 ounces processed cheese (American)
	½ cup ricotta cheese
	2 cups cottage cheese
Milk-based desserts (choose fat-free or low-fat types)	1 cup pudding made with milk
	1 cup frozen yogurt
	1 ½ cups ice cream
Almond, rice or soy milk fortified with calcium	1 cup calcium-fortified milk alternative
	1 half-pint container calcium-fortified milk alternative
SOURCE: CHOOSEMYPLATE.GOV/DAIRY	

CALCIUM

Most adults need to consume 1,000 milligrams of calcium daily.[21] This equates to three servings of dairy daily. For women over 51 years old and men over 70 years old, four servings of dairy daily are recommended.[21] A serving of dairy is one ounce of cheese or eight ounces of milk or yogurt. Many dairy alternatives, such as almond milk, are also fortified with calcium.

CAFFEINE

Caffeine has been shown to have the potential to accelerate cyst growth in ADPKD.[9] No recommendations have been made on the exact amount of caffeine individuals with ADPKD should limit themselves to each day. At the present time, while **caffeine should be limited in individuals living with ADPKD,** the consumption of a single cup of coffee (eight ounces equals 70 to 200 milligrams of caffeine), two cups of tea (16 ounces equals 30 to 140 milligrams of caffeine), or one diet soda (20 ounces equals 58 to 100 milligrams of caffeine) daily may be acceptable.[10] Decaf or caffeine-free versions of drinks are more appropriate, and if possible should be selected in place of a caffeinated beverage. **Caffeine-containing supplements, energy shots and energy drinks should be avoided due to their high caffeine content.**

CALORIES

Calorie intake should be appropriate to maintain a healthy body weight. For men who are sedentary, the recommended daily calorie intake is between 2,000 and 2,600 calories, and for women who are sedentary, it is between 1,600 and 2,000.[22] These are general guidelines and may not be suitable for every individual. Watching how your calorie intake affects your body weight is the best way to determine whether you are eating too few or too many calories based on your goals.

EXERCISE

As with any healthy diet, exercise should be a part of a broader healthy lifestyle. **Thirty minutes of exercise per day at least five days per week** will help keep your weight under control and may help improve HDL cholesterol (good cholesterol).[23] If you smoke, quitting may help increase your HDL cholesterol, as well as help improve your heart and lung health.[24]

WATER AND ADPKD

Drinking plenty of water has many potential benefits, including reducing the risk of kidney stones and preventing dehydration, which can worsen kidney function. To properly regulate fluid balance in our bodies, we depend on a hormone called vasopressin to conserve water when we are dehydrated and excrete water when we have too much. Unfortunately, high vasopressin levels (which occur when we don't get enough fluid) have been linked to many diseases, including high blood pressure, heart and kidney disease, and a particularly harmful effect in ADPKD. It is known that drinking more fluid can reduce vasopressin and slow the progression of ADPKD. However, drinking enough fluid each day can be difficult for patients to maintain in real life. Part of the difficulty in keeping vasopressin levels low throughout the day by drinking water is that people eat too

much salt and protein, raising vasopressin levels to help conserve water and maintain normal fluid balance. For the most part, daily intake of water, sodium and protein is not determined by physiologic requirements, but is more a function of dietary preferences and cultural influences. Healthy adults have an average daily fluid intake of one to three liters (34 to 101 ounces), with considerable individual variation. Thirty-three percent of this comes from a combination of water in food and your body producing water when it burns fat for energy, while the other 66 percent comes from the fluid you drink. Similarly, of the high solute ingested in the typical American diet, 75 percent of the solutes come from sodium, and the remaining 25 percent of solutes come from protein intake.[25] Solutes are dietary compounds that stimulate vasopressin secretion.

To address the challenges associated with a high fluid intake, a novel dietary intervention that lowers the amount of water needed to suppress vasopressin was developed. In a randomized controlled trial conducted at Tufts Medical Center on 34 patients with ADPKD, a diet-based intervention lowered vasopressin and reduced the amount of water patients needed to drink to achieve a reduction in vasopressin.[26] This intervention is based on a two-step approach of combining a diet low in protein and salt (low osmolar diet) with individualized adjusted water intake. Water intake was based on how much salt and protein were consumed. In this trial, individuals ingested 2.6 liters (88 ounces) of water per day on average, which significantly reduced vasopressin in patients with ADPKD. The average American consumes 1.2 liters per day.[27] It is important to note that the amount of water needed in patients with ADPKD is directly related to the amount of salt and protein eaten each day. Thus, the more salt and protein you eat, the more water you need to drink to achieve the maximum benefit. Water in this context refers to tap and bottled water only, with no additions. Individuals are encouraged to drink additional fluid, if desired. This includes, but is not limited to, vitamin water, tea and juice. Ideally, water intake should be distributed throughout the waking hours.

In summary, drinking plenty of water offers a safe, easily tolerated and affordable approach that can be adopted in the early stages of ADPKD to help keep your kidneys healthy.

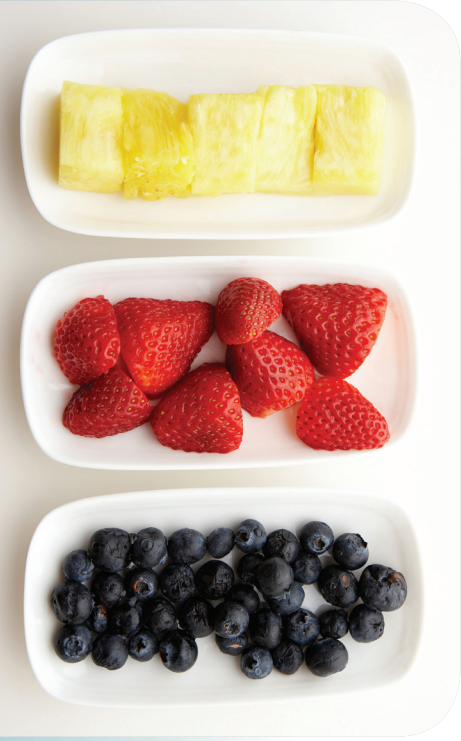
Dr. Osama Amro would like acknowledge Dr. Ronald Perrone for his role as a supervisor of the dietary and water study at Tufts Medical Center.

DIET AND PKD: A PILOT INTERVENTION STUDY

We have discussed the benefits of drinking fluid and eating less sodium and protein. Although these three dietary factors are important for individuals living with ADPKD, the additional dietary factor to be discussed is dietary acid load (see pages 8-9 for dietary acid load intro and guidelines). As you have already learned, dietary acid load, put simply, is the relationship between the amount of animal protein you consume and the amount of fruits and vegetables you eat. Animal proteins are metabolized into acids when eaten, which appear to be harmful to kidney function. Fruits and vegetables are metabolized into bases and may protect the kidneys.[2,3,12-15] These findings led researchers to examine whether individuals living with ADPKD may benefit from following a low-sodium, lower-protein diet supplemented with additional fruits, vegetables and fluids. Additionally, they wanted to determine whether this type of diet was feasible for individuals.

A pilot study was conducted in individuals with ADPKD at the University of Kansas Medical Center in Kansas City, Kansas.

Twelve adults with ADPKD were enrolled in a five-week study to determine whether individuals could follow a diet lower in sodium and protein and higher in fruits, vegetables and water.[28] Individuals consumed their usual diet for one week and the Kansas PKD diet for four weeks. Eleven individuals completed the study, and results showed a 36 percent reduction in sodium intake, a 28 percent reduction in protein intake, a 99 percent decrease in dietary acid load and a 42 percent increase in fluid intake. These findings were consistent with what was collected in urine samples during the study. Participants were not only successful following the Kansas PKD diet, but most participants felt "somewhat confident" or "very confident" in their ability to follow the Kansas PKD diet. This is not to say that individuals found no difficulty in following the diet, but that these difficulties were things they felt confident in being able to manage. Individuals reported that reaching the goal fruit and vegetable intake each day was difficult, yet participants increased their fruit and vegetable intake three-fold over what they had been eating. Eating out was reported as the most difficult time to adhere to the diet; however, you can still enjoy these things if you know what nutrition information to look for and how best to order at a restaurant. Look for lower-sodium meals (less than 500 milligrams) that don't contain too much protein (less than 25 grams), and don't skip the fruits or vegetables. Most restaurants' nutrition information can be provided by the restaurant, found online or accessed on your smartphone.



The findings from this study indicate that individuals living with ADPKD can follow a relatively complex diet prescription that may help protect their kidneys, at least over the course of one month. Plus, individuals were able to do so with only modest stressors. The results of this study indicate that for those individuals looking to play an active role in their disease, the dietary intervention

used here (and detailed in this cookbook with recipes that fit these dietary guidelines) can be followed by individuals safely, confidently and started as early as childhood. Family members without PKD also can follow this diet, as it adheres to healthy eating guidelines.

VEGETARIAN OR VEGAN DIETS AND ADPKD

Many individuals living with PKD may ask: If certain dietary behaviors are bad, shouldn't I just avoid them altogether? One topic that crops up frequently is about switching from a diet that includes meat to a vegetarian or vegan diet. To clarify the difference, vegetarians exclude most meats from the diet, but may still consume dairy, eggs or fish (or any combination of the three), while vegans exclude animal products of any kind from their diet (no meat, dairy, eggs, fish or any products or foods that include any animal-based products, including foods with gelatin). When followed correctly, these types of diets have many health benefits, such as reducing risk of cancer, cardiovascular disease, obesity, high cholesterol levels, high blood pressure, type 2 diabetes and even improving quality of life.[29-33] In addition to these benefits, it may even be protective of kidneys in individuals with PKD. Currently, no studies have been conducted to determine whether a vegetarian or vegan diet is more beneficial than a diet low in animal protein. At this time, either limiting meat intake or following a vegetarian or vegan diet can be recommended for individuals living with PKD. However, it is important to understand that animal protein foods contain essential nutrients that, when eliminated from the diet, can put you at risk for developing nutrient deficiencies that lead to health problems (including iron, zinc and B12 deficiency, to name a few). **If you are considering switching to a vegetarian or vegan diet, consult your physician and dietitian first, so that he or she can properly instruct you on how to make the appropriate dietary changes to meet your nutrient needs or whether certain supplements may be necessary.** Your physician may want to monitor you more closely initially to make sure that everything is being done safely and appropriately.

Nutrition Guidelines for **Individuals on Dialysis**

Without functioning kidneys, certain diet-associated waste products may build up in your blood. Watching what you eat and drink will help prevent this from occurring. Your doctor and dietitian should notify you about what you need to do to change your diet. Your goal should be to stay healthy by making sure your labs are in the normal range. **While continuing to restrict sodium is appropriate, other dietary recommendations mentioned in the "Nutrition Guidelines for Individuals Living With ADPKD" section MAY NOT be appropriate.** Many patients require a potassium restriction (due to high potassium levels in the blood) or must restrict fluid intake (due to producing less urine) on dialysis. You also need more protein in your diet since small amounts of protein may be filtered out during dialysis. Your doctor and dietitian will instruct you to do this by eating a little more meat or by prescribing you a nutritional supplement. For vegetarians or vegans, they will provide other alternatives. It is important for you to understand how to make these changes by making simple alterations to meals, and why doing these things is important to achieving optimal health.

Look for this icon on recipes for **dialysis-friendly** options.

The following is a general set of guidelines to help you eat healthy while on dialysis. Your doctor and dietitian may prescribe different guidelines depending on your health and lab values. See page 110 for more on the difference between a dietitian and nutritionist.

GOALS OF THE DIALYSIS DIET

- Keep serum potassium in normal range (3.5 to 5.5 millimoles per liter).[34]
- Keep serum phosphorus levels in normal range (3.5 to 5.5 milligrams per deciliter).[35]

- Keep your fluid weight gain between dialysis treatments at an appropriate level (usually less than two kilograms or 4.4 pounds).[36]
- Maintain an appropriate nPCR or nPNA level (minimum of 0.8; optimal is 1 to 1.4).[37]
- Keep your blood pressure in normal range, so your heart will be healthy (140/90 mmHg and 130/80 mmHg, pre- and post-dialysis, respectively).[36]

Doing these things will help keep you as healthy as possible.

GENERAL DIET GUIDELINES

SODIUM

Watching your sodium intake while on dialysis will be important for maintaining a healthy blood pressure. Sodium will not only cause you to be thirsty and drink more fluid, but your body will also retain more fluid and raise your blood pressure. Sodium is primarily consumed in the form of salt. The majority of sodium in the American diet comes from processed and packaged foods.[18] When at the grocery store, remember to check the nutrition label for sodium. **You should limit yourself to 2,000 milligrams of sodium per day.** A general guideline to keep from going over this would be to limit meals to

Nutritional Facts
Serving Size 1 cup
Servings Per Container 2

Amount Per Serving
Calories 250 Calories from Fat 110

	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 360mg	**15%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron 4%	

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

500 milligrams of sodium and snacks to 200 milligrams. Limiting packaged and processed foods in the diet will also help you limit the additional phosphorus they often have. It is also important to note that reduced sodium foods, particularly soups, may add potassium chloride (NuSalt) in its place. If you are on a potassium restriction, it is important to pay attention to this, as it should be avoided.

PROTEIN

The National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines recommend 1.2 to 1.3 grams per kilogram body weight per day (0.55 to 0.59 grams per pound of body weight per day).[37] This is more than is recommended for patients living with PKD or after having a kidney transplant due to the fact that dialysis removes some protein from the body. It usually is recommended that half of your protein intake comes from animal-source proteins (chicken, pork, beef, fish, eggs, cheese/milk, etc.). However, this is still only about six ounces of meat per day. If you are on hemodialysis, your doctor or dietitian may alert you to your nPCR level, which measures whether or not you have enough protein in your diet. Alternatively, if you are on peritoneal dialysis, your doctor or dietitian may alert you to your nPNA level. For individuals who are vegetarian or vegan, your dietitian will discuss with you alternative ways to make sure you meet your protein needs.

POTASSIUM

Potassium is of great importance before dialysis and after a kidney transplant. **While on dialysis, you may need to limit your intake of potassium.** This doesn't mean you have to stop eating fruits and vegetables, but you may need to be more selective. Apples, pears and peaches may be fine, but oranges and bananas should be eaten sparingly. For vegetables, green beans, cauliflower and onions are all low in potassium, while potatoes and tomatoes should be eaten less often. Some high-potassium foods, such as potatoes, may be fine if you cook them in a particular way. To reduce the potassium content of potatoes, dice or slice into small cubes or slivers. Then, boil them for 10 minutes. Cutting them smaller will remove more potassium. Doing this can result in removing 50 percent of the potassium in potatoes cut into small cubes and 75 percent for potatoes sliced into thin slivers.[38] For most patients, potassium should be kept to 2,000 to 3,000 milligrams per day while on dialysis. However, patients on peritoneal dialysis may not need to be as restrictive, since they receive dialysis every day.

HOW TO REDUCE THE POTASSIUM CONTENT OF POTATOES, SWEET POTATOES, CARROTS, BEETS, WINTER SQUASH AND RUTABAGAS

Step 1: Slice vegetables into cubes no more than ½ inch thick or cut into thin slivers. If peeling prior to slicing, place the vegetables in cold water to prevent darkening.
Step 2: Bring water to a boil and cook for 10 minutes.
Step 3: Pour off water (discard) and enjoy.

FLUIDS

While on dialysis, you often have a decrease in the amount of urine you make each day, or you may not make any urine at all. This means that you may need to limit the amount of fluid in your diet to prevent storing a large amount of fluid on your body that must then be removed by dialysis. Your doctor or dietitian may note your body weight between dialysis treatments to measure how much fluid you are retaining. If you are retaining too much fluid, **you may need to limit your fluid intake to less than two liters per day (67 ounces).** However, your doctor or dietitian will notify you of your specific goal. Fluid-based foods such as soups and smoothies also count toward your daily total.

PHOSPHORUS

If you eat too much phosphorus while on dialysis, it can harm your heart and bones. Phosphorus can be found in many foods, including meats, dairy, whole grains and dark colas. Phosphorus is a preservative and is found in most packaged and processed foods. Fortunately, it is possible to reduce the phosphorus content of the meat you consume. Similar to reducing potassium in vegetables, meat should be cut into thin slices and boiled for at least 10 minutes (30 minutes is preferred). Doing this can result in the removal of 50 percent of the phosphorus by boiling for 10 minutes and 65 percent of the phosphorus by boiling for 30 minutes.[39] For most patients, phosphorus should be limited to no more than 800 to 1,000 milligrams per day. **You should aim to keep your serum phosphorus levels less than 5.5 milligrams per deciliter.**[35] Your physician also may prescribe you phosphorus binders to be taken with meals to help prevent phosphorus absorption.

HOW TO REDUCE THE PHOSPHORUS CONTENT OF MEAT

Step 1: Slice meat into thin strips.
Step 2: Bring water to a boil. Boil for at least 10 minutes (30 minutes is preferred).
Step 3: Pour off water (discard) and enjoy.

CALCIUM

While on dialysis, you should aim for 1,000 milligrams of calcium per day.[21] **Since you may have to limit your intake of milk and cheese because of the phosphorus content, your physician may prescribe a calcium supplement to be taken with or away from meals to help meet your needs.** Keep in mind that milk substitutes such as soy milk may contain phosphorus additives, so make sure you check the label before using them as a source of calcium.

CALORIES

Eating enough calories to get proper nourishment while maintaining a healthy body weight while on dialysis is important. **The KDOQI guidelines recommend getting 35 calories per kilogram body weight (16 calories per pound) for people under 60 years of age and 30 to 35 calories per kilogram body weight (13.6 to 16 calories per pound) for people over 60 years of age.**[37]

Nutrition Guidelines for **Individuals With Kidney Transplants**

For individuals who have received a transplant, your diet will resemble the foods you ate prior to dialysis, but for different reasons. Watching your sodium intake will be important for keeping your blood pressure under control, while drinking sufficient amounts of water will be important for making sure your kidney gets plenty of blood flow. Fruits and vegetables will still be important for reducing your dietary acid load. Limiting meat will also be important.[40] The dietary restrictions you had if you were on dialysis will ease up once your kidney function improves, so it is important to make the appropriate changes to your diet. Your doctor and dietitian will help you transition from the diet you may have followed on dialysis to your new diet. See page 110 for more on the difference between a dietitian and nutritionist.

GUIDELINES FOR AFTER YOUR KIDNEY TRANSPLANT

PREVENT EXCESS WEIGHT GAIN

After having a kidney transplant, patients often feel better, and without the strict dietary restrictions that are often necessary if on dialysis, people tend to overeat and gain weight.[41] Some medications prescribed to individuals with kidney transplants also can cause weight gain.[42] Gaining weight can increase your risk for several chronic diseases, including hypertension and diabetes. This can be bad for your new kidney. **It is important to remember to avoid overeating, watch your salt and sugar intake and exercise regularly if your doctor has cleared you to do so.**

KEEP YOUR BONES HEALTHY

Kidney disease can cause your bones to weaken. Calcium is responsible for keeping bones strong and an important part of everyone's diet. **Ideally, calcium can be obtained by consuming three servings of dairy per day.** However, other foods may be fortified with calcium, including orange juice and milk substitutes. These foods may be consumed as an alternative to dairy products to meet your calcium needs. Check labels to see how much calcium is contained per serving. If getting calcium from food isn't possible, talk to your doctor and dietitian about taking a calcium supplement to help meet your needs.

Serving Equivalent	
Dairy or Substitute Products	**Amount That Counts as a Cup in the Dairy Group**
Milk (choose fat-free or low-fat milk)	1 cup milk
	1 half-pint container milk
	½ cup evaporated milk
Yogurt (choose fat-free or low-fat yogurt)	1 regular container (8 fluid ounces)
	1 cup yogurt
Cheese (choose reduced-fat or low-fat cheeses)	1 ½ ounces hard cheese (cheddar, mozzarella, Swiss, Parmesan)
	⅓ cup shredded cheese
	2 ounces processed cheese (American)
	½ cup ricotta cheese
	2 cups cottage cheese
Milk-based desserts (choose fat-free or low-fat types)	1 cup pudding made with milk
	1 cup frozen yogurt
	1 ½ cups ice cream
Almond, rice or soy milk fortified with calcium	1 cup calcium-fortified milk alternative
	1 half-pint container calcium-fortified milk alternative
SOURCE: CHOOSEMYPLATE.GOV/DAIRY	

HERBAL SUPPLEMENTS

After having a kidney transplant, you likely will be on medications that suppress the immune system. Suppressing the immune system is important so that the body doesn't attack the new kidney. For this reason, you should **avoid taking herbal supplements to help boost the immune system.** These supplements interfere with your other post-transplant medications. Supplements that may be beneficial after having a kidney transplant include fish oil, approved multivitamins and calcium. Check with your doctor and dietitian if you are considering one of these supplements.

FOOD SAFETY

Food safety is important for everyone, but for individuals with kidney transplants who are often on immune-suppressing medications, it is of the utmost priority. **Following food safety protocols after having a kidney transplant is very important. Foodsafety.gov** uses the simple mantra of **"clean, separate, cook, chill"** to help you understand the four necessary steps to keeping food safe.

CLEAN

Washing hands is a key component to keeping food safe. Washing surfaces, utensils and cutting boards is necessary to prevent the spread of bacteria, especially when they have come into contact with raw meat. Finally, it is important to wash fruits and vegetables before eating. This includes fruits and vegetables with rinds, such as watermelon, lemons and cantaloupe. Although you may not eat the rind, the knife will spread the bacteria from the outer surface into the core when cutting. Like us, bacteria eat the fruit for energy, which results in them rapidly increasing in number and potentially making you sick.

SEPARATE

Keep uncooked meat away from other foods. While at the grocery store, keep the meat in a separate part of your grocery cart. Just because the meat is wrapped in packaging doesn't mean it won't leak onto your fresh fruits and vegetables. When preparing raw meat you should use a separate cutting board with separate utensils. As always, don't forget to wash your hands. Finally, meat should always be packaged neatly and stored at the bottom of the refrigerator to prevent leakage onto other foods.

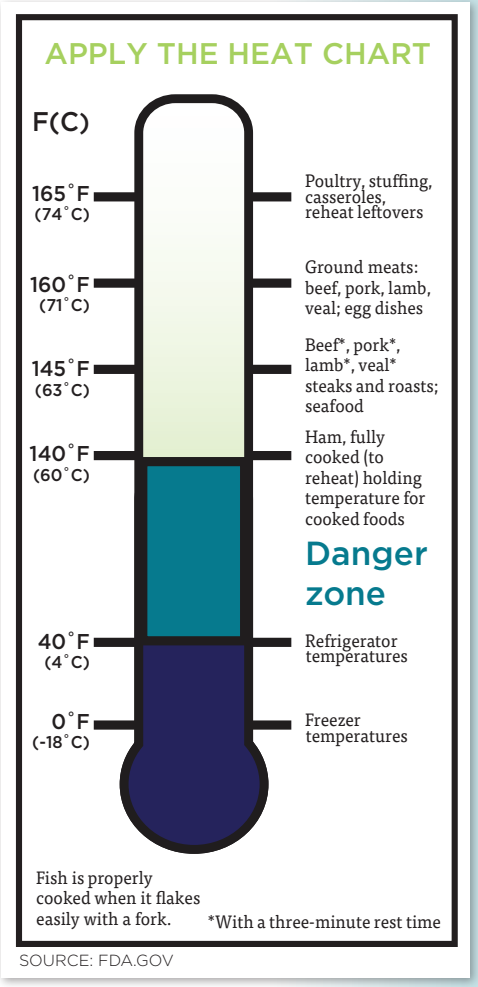
COOK

Cook all meats to the appropriate temperatures. To do this, make sure you have a food thermometer available. The food thermometer should be placed in the thickest part of the meat, and the temperature checked to make sure the entire cut of meat is cooked thoroughly. Once cooked, keep foods above 140°F to ensure they don't go into the danger zone where bacteria can rapidly multiply. When eating leftovers, microwave foods to 165°F and check with a food thermometer. Make sure the food is stirred while microwaving to ensure that the food is heated evenly.

CHILL

After eating, make sure the food is stored properly. Food should be wrapped up and chilled within two hours after cooking is complete. See the food chart at **fda.gov** to determine how many days foods can safely be left in the refrigerator and freezer.

Especially during summer months, you should be careful about food at barbecues and picnics. When not stored at the proper temperatures, foods that should be chilled, such as potato and macaroni salads, and foods that need to remain at or above 140°F, such as meat, may be sitting out without the proper chilling or heating devices, making them a high risk for bacterial growth. If you are ever uncertain, it is best to avoid these types of foods.



SOURCE: FDA.GOV

Nutrition Guidelines for **Children at Risk of Having ADPKD** and **Individuals With ARPKD**

ARPKD OR ADPKD

Individuals living with PKD may have one of two forms: autosomal recessive PKD (ARPKD) or autosomal dominant PKD (ADPKD). ARPKD is faster-progressing, and the onset of symptoms is generally in childhood. ADPKD may not present symptoms until adults are middle-aged. Most of the diet research has been conducted in ADPKD patients or animal models that more closely resemble ADPKD. However, the dietary factors studied in these research trials ultimately target certain hormones or biochemicals known to cause cyst growth. Although clinical trials have not been performed to examine whether these same dietary factors influence disease progression in ARPKD, individuals living with ARPKD may benefit from making these same dietary changes.

FEEDING A CHILD WHO HAS PKD

Many parents may not know whether their child has PKD or not. Parents may ask themselves whether their child should make diet changes, just in case, or whether the diet may be harmful or affect their child negatively if he or she ends up not having PKD. Fortunately, the dietary factors discussed in the *Nutrition Guidelines for Individuals Living With ADPKD* section of this cookbook are all healthy dietary behaviors that can be followed by anyone in the family, regardless of whether or not he or she has PKD. Therefore, special foods do not need to be prepared for a single individual, but can be prepared for the entire family. It is safe for your child to follow a PKD-friendly diet, even if he or she ends up not having PKD.

Ultimately, eating healthy as a child will promote lifelong healthy dietary behaviors and may lower his or her risk for certain chronic diseases, such as high blood pressure or diabetes, during adulthood.

It is also important to know that making PKD-friendly dietary choices should begin as soon as children begin eating solid foods, rather than waiting until they have symptoms decades later. This is because PKD (particularly ADPKD) is a very slow-progressing disease that takes years until the onset of symptoms. If your child has ADPKD, they have it from birth. Yet, symptoms aren't noticeable until decades later when the disease has already caused a lot of damage to the kidney. If symptoms do appear during childhood, consult your family doctor or family nephrologist to determine what should be done next for your child. Your physician or dietitian can instruct you on whether changes to your child's diet need to be made that differ from the dietary guidelines in this cookbook. See page 110 for more on the difference between a dietitian and nutritionist.

AGES 1 THROUGH 4

Exposure to new foods is key at this age. **Children may not be open to trying foods or liking certain foods until they have been exposed to it up to 15 times.**[45,46] Parents may only offer a food to a child once and, if their child doesn't want to try it or appears to dislike it, the food is never offered again, leaving the parent to believe their child is a picky eater. In addition to trying a variety of foods, make sure to offer fruits and vegetables at every meal. This will help ensure that your child gets enough potassium. Your child should consume fluid, primarily water, over the course of the day. Have a sippy cup around for the child to drink out of once they are old enough. While protein is important for growth and development, meat should be limited to meal times to avoid eating excess protein. Finally, buying fewer processed foods and cooking at home more frequently will reduce your child's sodium intake and help keep vasopressin levels low, which should help protect their kidneys.

AGES 5 THROUGH 12

Once children reach school age, their eating behaviors are more influenced by peers. To continue to promote healthy eating, sending lunch from home may ensure they get the food they need to keep their kidneys healthy. Some children at this age may be more interested in eating a school-provided lunch. Parents can look at the meals prior to the school day and decide which days are best for the child to eat in the cafeteria and which days food should be sent from home. You or your physician may even request a special diet from the school that will help make sure your child gets the right foods.

In addition to eating healthy, children at this age may start being involved in sports. It is important that your child's doctor has approved exercise and that there are no potential issues with your child playing the sport of his or her choice. Some contact sports such as football may not be recommended. When engaging in sports, it is important to make sure children stay hydrated. In most circumstances, water is the preferred source of fluids for your child during exercise. Sports drinks are often loaded with sodium. Unless your child is an elite athlete training for hours a day or playing in extreme temperatures, water should be sufficient for hydration. Children also may benefit from carrying a water bottle to classes

throughout the day. Doing this will help ensure they stay hydrated and that vasopressin levels are suppressed over the course of the day.

Given your child's busy schedule during these years, preparing meals every day may not be possible. Often, fast food is of great convenience, even if it doesn't have the healthiest options. Fast food establishments should have nutrition facts available in the restaurant or online (accessible via smartphone). It would be a good idea to look up a few "best" options at the most common restaurants your child likes. One thing you can do to make fast food healthier is to request fresh, unsalted fries. This will greatly reduce the amount of sodium in your child's meal. You should pay particular attention to the sodium and protein contents of the meal. **Meals should primarily contain less than 500 milligrams of sodium and no more than 10 grams of protein for children between 5 and 8 years of age, no more than 15 grams of protein for children 9 and 12 years of age and no more than 20 grams of protein for children 13 and 18 years of age.**

Finally, involving children in the preparation of dinner will be important to increase the chances that they will try new foods at meal times. Involvement can be limited to doing simple tasks, such as setting the table or getting small items from the refrigerator. As children get older and have mastered the safe use of utensils, they may be able to help with more difficult tasks related to food preparation. **This will increase the chances of them trying new foods and teach them cooking skills that will be useful throughout their lives.**

AGES 13 THROUGH 18

Once children become teenagers, there is often a shift in responsibilities over time. These young adults start taking on more of their day-to-day care themselves. After getting a driver's license,

they will likely start eating more meals away from home with their friends. It will be important to focus on a few key dietary behaviors to promote healthy kidneys over these years:

1. Avoid excess protein intake, particularly for teenagers participating in sports.
2. Eat fruits and vegetables at meal times, especially at breakfast, which many teenagers skip.
3. Watch sodium intake when eating out.
4. Drinking plenty of fluid is also important, but, hopefully, by the time they become teenagers, this has become second nature to them.

Your child may wake up last minute and choose to skip breakfast due to time constraints. **Breakfast is an opportune time for children to eat some fruit during the day, and most fruits require no preparation or cooking time.** Your child may even want to create a variety of different fruit smoothies, which will help get an assortment of fruits into the diet while taking less time to prepare than toasting a Pop-Tart® and is much healthier!

As children spend more time away from home, they are bound to eat at more fast-food restaurants. It will become increasingly important to make sure they know how to select appropriate foods from these places. It will ultimately be up to your children to make the best decisions for themselves.

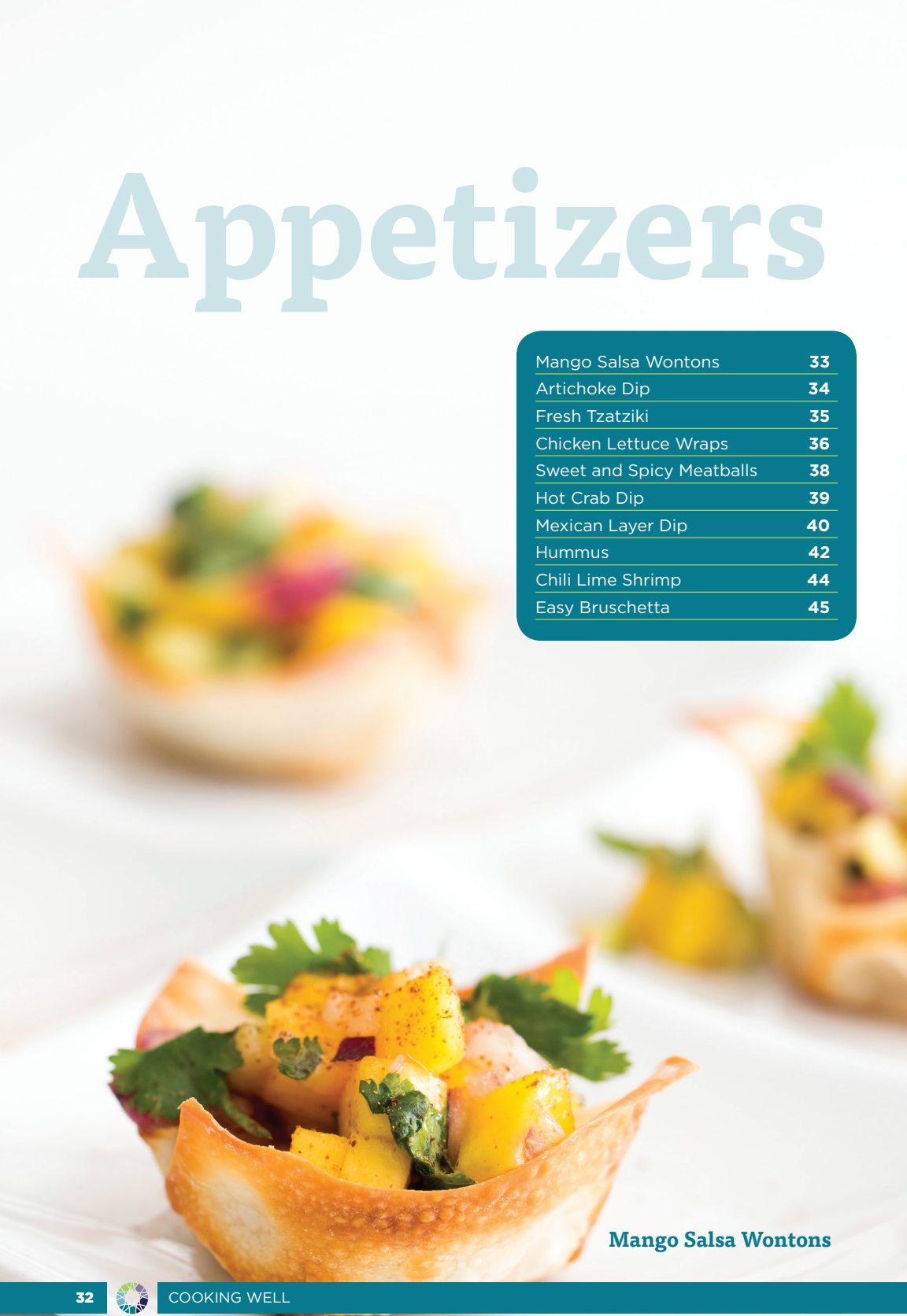
If your child is involved in sports, training may become more time-consuming. Team coaches and trainers at the school may start offering dietary guidance, especially in competitive sports, such as football and wrestling. While these coaches may have the best intentions to help your child succeed in athletics, what is good for the majority of kids may not be appropriate for your child. Often, protein intake is pushed as the most important thing to gain muscle, but high intakes of protein should be avoided in children living with PKD. It is best for parents to work with the team's coaches to help them

understand your child's medical situation. Explain that, for your child to best perform, it is best for the coach to advocate they follow the dietary guidance outlined in this cookbook. If the coaches understand what is going on and that research has led to the development of these dietary guidelines for them, then your child's coach could help advocate good dietary choices while your child engages in his or her favorite sports-related activities. When discussing diet with your child's coaches, it is best to educate them on the typical course of the disease and why it is so important for you to do everything you can to keep your child's kidneys healthy now. This will help the coaches understand the importance of not drastically changing your child's diet to help improve their sports performance, since short-term benefits in muscle growth or weight gain or loss won't outweigh the long-term benefits of making your child's kidneys last. All performance-enhancing supplements should be avoided unless approved by your child's physician.

18 YEARS AND OLDER

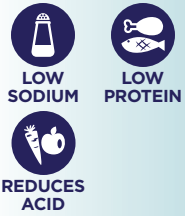
Once children reach 18 years of age, they may head off to college or consider moving out on their own. If they are going to college, keep in mind that your child may have limited access to a kitchen, equipment to cook in a dorm room or may not know how to cook. Teaching your child basic food preparation skills will be important during or even before their high-school years. Often, colleges have food passes for eating at restaurants on campus. It would be good for your child to review what his or her options are and find the most suitable places to eat to maintain the healthiest diet possible. During college, and even high school, marathon study sessions combined with limited sleep may lead your child toward drinking energy drinks or taking energy shots. It is best for these to be avoided completely, as they are loaded with caffeine and may stimulate the growth of cysts. Instead, sufficient sleep should be the goal, as well as engaging in activities that relieve stress.

Appetizers



Mango Salsa Wontons

Mango Salsa **Wontons**



Servings: 24 *Serving size: 1 wonton*

INGREDIENTS

Vegetable oil cooking spray
1 large ripe mango, peeled, pitted and diced
1 small cucumber, peeled, seeded and diced
½ medium red onion, finely diced
2 to 3 tablespoons fresh lime juice
1 tablespoon olive oil
Pinch of cayenne pepper
2 to 3 tablespoons chopped fresh cilantro (or more to taste)
24 wonton sheets (1 package; available at supermarkets or specialty stores)

NUTRITION INFORMATION
(per serving)

Calories 40
Fat 0.7 g
Carbohydrates 7 g
Protein 1 g
Dietary Fiber 0.5 g
Calcium 4 mg
Phosphorus 11 mg
Sodium 6 mg
Potassium 45 mg

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Coat mini-muffin pans with cooking spray and line the molds with wonton sheets.
3. Bake for 9 to 12 minutes or until golden brown.
4. Set the wonton cups aside to cool.
5. Combine remaining ingredients plus pepper to taste.
6. Fill each wonton with salsa and serve.


LOW SODIUM


LOW PROTEIN


REDUCES ACID

Artichoke Dip

Servings: 10 *Serving size: 1/10 of recipe*

INGREDIENTS

1 cup frozen artichoke hearts
¼ cup low-fat mayonnaise
¼ cup low-fat sour cream
2 tablespoons light or low-fat cream cheese
1 large garlic clove, crushed
2 teaspoons hot sauce
1 tablespoon Parmesan cheese

NUTRITION INFORMATION
(per serving)

Calories 40
Fat 2.4 g
Carbohydrates 4 g
Protein 1 g
Dietary Fiber 1.5 g
Calcium 24 mg
Phosphorus 31 mg
Sodium 113 mg
Potassium 75 mg

COOKING INSTRUCTIONS

1. Preheat oven to 375° F.
2. Place artichoke hearts in a saucepan, cover with water and bring to a boil.
3. Reduce heat to medium and cook for 6 minutes.
4. Drain and rinse with cold water to cool.
5. Chop artichoke hearts.
6. In a medium bowl, combine mayonnaise, sour cream, cream cheese, hot sauce and garlic.
7. Transfer mixture to a baking dish. Top with Parmesan cheese.
8. Place in oven and bake for 30 minutes or until bubbly on top.

NOTES

If using canned or a jar of artichokes instead of frozen, look for the lowest-sodium brand. Rinse well to help reduce sodium.

SERVING SUGGESTION

Try this dip on toasted slices of baguette, crisp celery or with your favorite low-sodium crackers.

Fresh **Tzatziki**

LOW SODIUM
LOW PROTEIN
REDUCES ACID

Servings: 10 *Serving size: 2 tablespoons*

INGREDIENTS

1 large cucumber, peeled and finely chopped
1 cup plain nonfat yogurt
1 teaspoon dried dill weed
4 large cloves of garlic, minced
1 tablespoon fresh lemon juice
Pinch of salt

NUTRITION INFORMATION
(per serving)

Calories 20
Fat 0.1 g
Carbohydrates 3 g
Protein 2 g
Dietary Fiber 0.2 g
Calcium 57 mg
Phosphorus 47 mg
Sodium 35 mg
Potassium 110 mg

COOKING INSTRUCTIONS

1. Combine all ingredients in bowl.
2. Let stand for 20 minutes.

SERVING SUGGESTION

Serve with fresh vegetables, such as cucumbers, broccoli and carrots. Use as a dressing for salad or as a spread for a sandwich. Leftovers will keep in the refrigerator for 3 to 4 days.

LOW SODIUM

LOW PROTEIN

REDUCES ACID

Chicken **Lettuce Wraps**

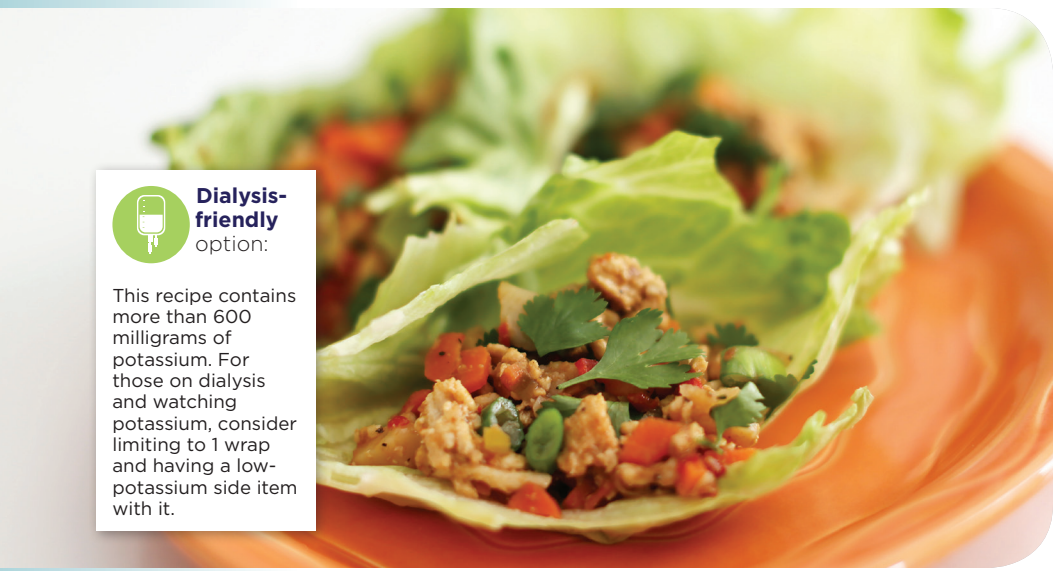
Servings: 6 *Serving size: 2 wraps*

INGREDIENTS

Vegetable oil cooking spray
4 medium carrots, peeled and finely diced
2 large (11 to 12 inches) stalks of celery, finely diced
1 large red bell pepper, seeded and finely diced
1 can (8 ounces) water chestnuts, drained and finely diced
3 medium scallions (white and green parts), thinly sliced
2 tablespoons fresh ginger, grated or finely minced
4 cloves garlic, minced
1 pound ground chicken (at least 90 percent lean)
¼ teaspoon black pepper
⅓ cup Chinese plum sauce
2 tablespoons reduced-sodium soy sauce
2 tablespoons rice vinegar
1 teaspoon hot pepper sauce (or to taste)
¼ cup minced fresh cilantro, plus extra for garnish
1 head Boston or Bibb lettuce

NUTRITION INFORMATION
(per serving)

Calories 155
Fat 5.0 g
Carbohydrates 18 g
Protein 11 g
Dietary Fiber 2.8 g
Calcium 46 mg
Phosphorus 149 mg
Sodium 364 mg
Potassium 614 mg



Dialysis-friendly option:

This recipe contains more than 600 milligrams of potassium. For those on dialysis and watching potassium, consider limiting to 1 wrap and having a low-potassium side item with it.

COOKING INSTRUCTIONS

1. Liberally coat a large skillet with cooking spray and preheat over medium-high heat.
2. Add the carrots, celery, bell pepper, water chestnuts, scallions, ginger and garlic.
3. Sauté, stirring occasionally, until the vegetables soften slightly, about 5 minutes. Add a tablespoon of water as necessary to prevent scorching.
4. Reapply cooking spray, if necessary, and add the ground chicken to the skillet.
5. Cook until the chicken is no longer pink, breaking the meat into a fine crumble with a wooden spoon as it cooks.
6. Season with pepper.
7. Add the plum sauce, soy sauce, vinegar and chili paste. Stir to coat.
8. Reduce the heat to low and simmer until heated through.
9. Remove the skillet from heat and stir in cilantro.
10. Allow the mixture to cool slightly, about 5 minutes.
11. Clean the lettuce and break off 12 individual leaves.

NOTES

When gathering the lettuce leaves, trim away the stem end of the leaves if they are tough.

SERVING SUGGESTION

Fill each lettuce cup with ½ cup of the chicken mixture. Garnish with additional cilantro if desired.

Sweet and Spicy **Meatballs**

Servings: 18 *Serving size: 2 meatballs*

NUTRITION INFORMATION
(per serving)

Calories 80
Fat 2.9 g
Carbohydrates 8 g
Protein 5 g
Dietary Fiber 0.4 g
Calcium 11 mg
Phosphorus 43 mg
Sodium 34 mg
Potassium 81 mg

INGREDIENTS

Vegetable oil cooking spray
¼ cup onion, chopped
1 pound 85 percent or leaner ground beef
⅓ cup fine dry breadcrumbs
¼ cup fresh parsley, chopped
⅛ teaspoon nutmeg
¼ cup liquid reduced-fat or low-fat nondairy creamer
1 large egg white, beaten
½ cup fresh or frozen cranberries, finely chopped
2 teaspoons dry mustard
⅛ teaspoon cayenne pepper
½ cup grape jelly
1 teaspoon fresh lemon juice

COOKING INSTRUCTIONS

1. Preheat oven to 375° F.
2. Coat a small saucepan with cooking spray and place over medium heat.
3. Add onion and sauté until tender.
4. Combine onion with next 6 ingredients in a bowl.
5. Shape into 36 1-inch meatballs.
6. Coat a jelly roll pan or shallow baking dish with cooking spray.
7. Place meatballs in pan and bake for 18 minutes.
8. Meanwhile, prepare sauce by combining the cranberries and remaining ingredients in a small saucepan.
9. Cook over medium heat until heated through.
10. Transfer meatballs to a serving dish and pour sauce over meatballs. Serve with toothpicks.

SERVING SUGGESTION

Pair with some vegetables and dip to reduce the dietary acids, and you have the makings of a PKD-friendly appetizer!

Hot **Crab Dip**

Servings: 10 *Serving size: 1/10 of recipe*

INGREDIENTS

1 package (8 ounces) light or low-fat cream cheese, softened
1 tablespoon onion, finely minced
1 teaspoon fresh lemon juice
2 teaspoons low-sodium Worcestershire sauce
⅛ teaspoon black pepper
Cayenne pepper to taste
2 tablespoons nondairy creamer
1 can (6 ounces) crab meat, drained

NUTRITION INFORMATION
(per serving)

Calories 65
Fat 3.7 g
Carbohydrates 3 g
Protein 5 g
Dietary Fiber 0 g
Calcium 51 mg
Phosphorus 78 mg
Sodium 179 mg
Potassium 117 mg

COOKING INSTRUCTIONS

1. Preheat oven to 375° F.
2. Place softened cream cheese in a bowl.
3. Add onion, lemon juice, Worcestershire sauce, black pepper and cayenne pepper. Mix well.
4. Stir in nondairy creamer.
5. Add crab meat and stir until blended.
6. Place mixture into an oven-safe dish.
7. Bake uncovered for 15 minutes or until hot and bubbly.

SERVING SUGGESTION

Serve warm with low-sodium crackers.

LOW SODIUM

LOW PROTEIN

REDUCES ACID

Mexican Layer Dip

Servings: 15 *Serving size: about 4 bites*

INGREDIENTS

1 15-ounce can low-sodium refried black beans
3 ripe avocados, peeled and pitted
1 tablespoon fresh lemon juice
1 tablespoon light mayonnaise
½ cup low-fat sour cream
2 tablespoons fresh cilantro, chopped
3 tablespoons low-sodium taco seasoning
2 medium bell peppers, any color, diced
½ cup of your favorite low-sodium cheese, shredded
2 to 3 cups shredded lettuce
½ cup diced plum tomato
½ cup diced onion

NUTRITION INFORMATION
(per serving)

Calories 110
Fat 6.7 g
Carbohydrates 11 g
Protein 4 g
Dietary Fiber 4.2 g
Calcium 53 mg
Phosphorus 88 mg
Sodium 66 mg
Potassium 347 mg

COOKING INSTRUCTIONS

1. Spread ingredients in 9" x 11" baking pan.
2. Layer 1: refried black beans
3. Layer 2: Mash together: 3 ripe avocados, lemon juice and mayonnaise
4. Layer 3: Mix sour cream, cilantro and low-sodium taco seasoning
5. Layer 4: bell peppers
6. Layer 5: shredded cheese
7. Layer 6: shredded lettuce
8. Layer 7: diced plum tomato and onion

NOTES

Substitute Homemade Salt-Free Mexican Spice Mix on page 103 for the low-sodium taco seasoning, and make your own light mayonnaise with the recipe on page 104.

For low-sodium cheese, we suggest Monterey jack or low-sodium versions of cheddar or pepper jack. You can also mix a blend for variety.

SERVING SUGGESTIONS

The joy in this dish is how much you can personalize it to your taste. If you don't like something, just leave it out. Is it missing your favorite taco ingredient? Add it in and make it your own.

Serve with raw vegetables such as baby carrots, broccoli florets and cauliflower florets, salt-free tortilla chips or tortillas cut into triangles.

Hummus

Servings: 8 *Serving size: ⅛ of recipe*

INGREDIENTS

⅔ cup dry or 1½ cups cooked and drained garbanzo beans (chickpeas)
Juice from 1 lemon
2 cloves garlic, minced
2 to 3 tablespoons tahini sauce
2 tablespoons onion, minced
2 tablespoons fresh parsley, minced
Pinch of salt

NUTRITION INFORMATION
(per serving)

Calories 95
Fat 3.9 g
Carbohydrates 12 g
Protein 4 g
Dietary Fiber 3.3 g
Calcium 47 mg
Phosphorus 104 mg
Sodium 28 mg
Potassium 157 mg

COOKING INSTRUCTIONS

Beans:

1. Place beans in a large bowl and cover with several inches of cold water. They will double in size during soaking, so be sure to use a large enough bowl to accommodate.
2. Remove and discard any floating beans.
3. Cover the bowl with a clean towel and let soak overnight. Drain and rinse before cooking. Place beans in large pot and cover with water (about 1 quart of water for each cup of soaked beans).
4. Bring to a boil and reduce to a simmer.
5. Cook for 60 to 90 minutes until tender. Watch water level as you cook, you may need to add more water.
6. Drain in colander and allow to cool.
7. Place cooked and drained beans in airtight container or sealable bag (keep liquid out). They will keep in the refrigerator for 3 to 4 days.

Hummus:

1. Mash cooked garbanzo beans into thick paste.
2. Add the rest of the ingredients and stir together.
3. If consistency is too thick, add a bit more lemon juice.

NOTES

Using dried garbanzo beans, rather than canned, allows you to better control the salt content. Consider cooking a large batch and freezing the extras for use next time. To freeze, pat dry with a paper towel before adding to a sealable bag. Frozen garbanzos will keep for about a year.

Hummus requires quite tender beans, but they freeze better when they are firmer. You may want to remove a portion to freeze and continue cooking the rest.

SERVING SUGGESTION

Serve with fresh pita bread and fresh vegetables such as cucumbers, broccoli and carrots for a snack.

Chili Lime **Shrimp**

Servings: 4 *Serving size: about 5 shrimp*

INGREDIENTS

¼ cup low-sodium or no-salt-added tomato paste
1 clove garlic, minced
1 teaspoon chili powder
Vegetable oil cooking spray
1 pound fresh medium shrimp (16 to 20 count), peeled, deveined
1 lime, cut into wedges

NUTRITION INFORMATION
(per serving)

Calories 95
Fat 0.8 g
Carbohydrates 2 g
Protein 20 g
Dietary Fiber 0.4 g
Calcium 67 mg
Phosphorus 203 mg
Sodium 105 mg
Potassium 271 mg

COOKING INSTRUCTIONS

1. Combine tomato paste, garlic and chili powder in small bowl.
2. Spray wok or large skillet with cooking spray; heat on high 1 minute.
3. Add shrimp, stirring frequently; cook 5 minutes or until shrimp turn pink.
4. Add tomato paste mixture; toss to evenly coat shrimp.

NOTES

Use fresh shrimp, as frozen are often high in sodium.

SERVING SUGGESTIONS

Divide shrimp evenly among 4 serving plates. Squeeze 1 lime wedge over shrimp on each plate before serving. Serve with additional lime wedges.

To reduce the acids from the meat, pair with some vegetable sides or fresh fruit.

Easy **Bruschetta**

Servings: 8 *Serving size: 6 slices*

INGREDIENTS

½ cup red bell pepper, chopped
½ cup dry-packed, sun-dried tomatoes, chopped
2 tablespoons grated Romano cheese
2 tablespoons grated Parmesan cheese
1 tablespoon minced garlic
1½ teaspoons dried basil leaves
1½ teaspoons dried oregano leaves
1 baguette about 26 inches long, cut into ½-inch diagonal slices, toasted
1 can (14½ ounces) low-sodium or no-salt-added petite diced tomatoes

NUTRITION INFORMATION
(per serving)

Calories 170
Fat 1.9 g
Carbohydrates 31 g
Protein 8 g
Dietary Fiber 2.1 g
Calcium 78 mg
Phosphorus 99 mg
Sodium 368 mg
Potassium 265 mg

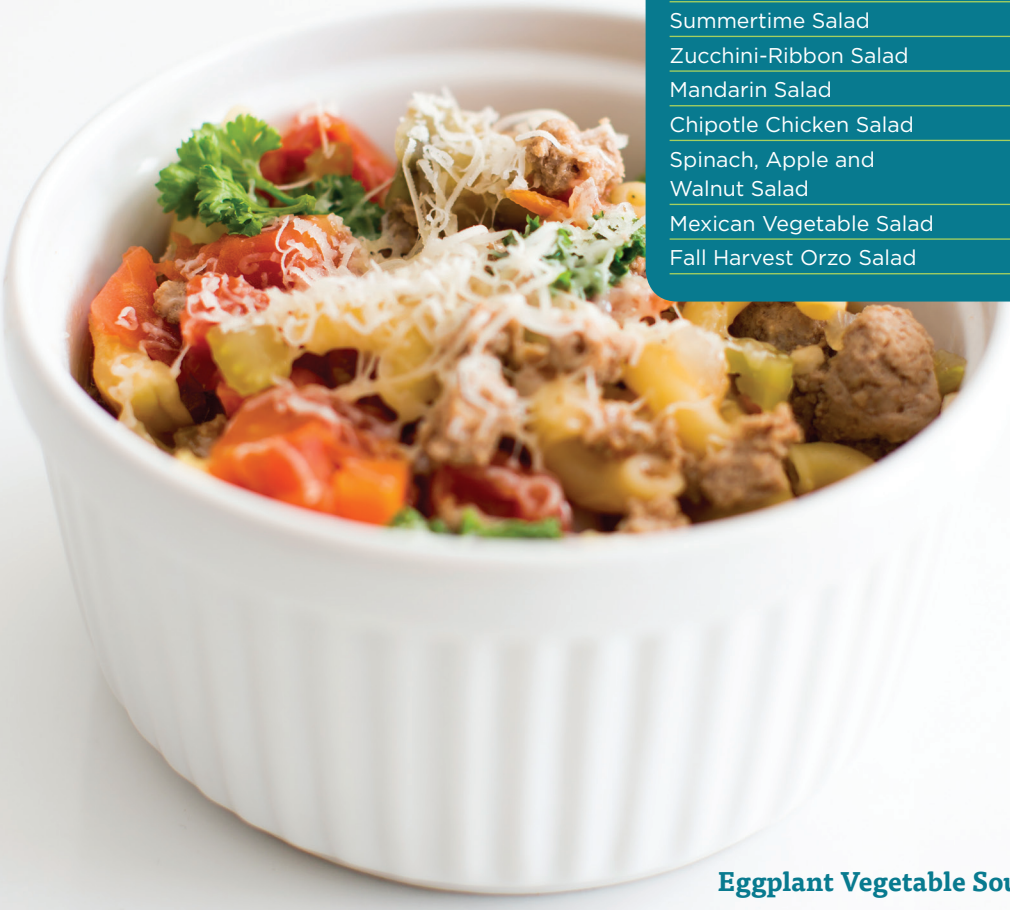
COOKING INSTRUCTIONS

1. Combine and mix all ingredients, except baguette slices, in a saucepan.
2. Season with pepper to taste; bring to a boil.
3. Reduce heat and let simmer for 10 minutes.

SERVING SUGGESTION

Serve at room temperature on toasted baguette slices.

Soups and Salads



Eggplant Vegetable Soup

Eggplant **Vegetable Soup**

Servings: 12 *Serving size: 1 cup*

INGREDIENTS

1 pound 93 percent lean ground turkey
½ cup onion, chopped
½ cup celery, chopped
½ cup carrots, chopped
1 can (28 ounces) low-sodium or no-salt-added crushed tomatoes with liquid
28 ounces low-sodium or no-salt-added beef broth
1 medium eggplant, peeled and cubed
1 clove garlic, minced
½ teaspoon salt
1½ teaspoon ground nutmeg
½ cup dry macaroni
2 teaspoons dried parsley
Pepper to taste
¾ cup grated Parmesan cheese for garnish

NUTRITION INFORMATION
(per serving)

Calories 145
Fat 5.6 g
Carbohydrates 12 g
Protein 13 g
Dietary Fiber 2.2 g
Calcium 106 mg
Phosphorus 156 mg
Sodium 252 mg
Potassium 312 mg

COOKING INSTRUCTIONS

1. In a pot, brown turkey.
2. Add onions, celery, carrots, tomatoes and broth.
3. Stir well.
4. Add eggplant and spices; simmer for 30 minutes.
5. Add macaroni, cook 10 minutes longer, until macaroni is done.
6. Add parsley.
7. Serve sprinkled with cheese.

SERVING SUGGESTION

This hearty soup is loaded with healthy vegetables. Want it as a side dish instead? Considering making it without the meat.


LOW SODIUM


HIGH FLUID


HIGH ACID

Turkey **Vegetable Soup**

Servings: 12 *Serving size: 1 cup*

NUTRITION INFORMATION
(per serving)

Calories 245
Fat 13.8 g
Carbohydrates 8 g
Protein 24 g
Dietary Fiber 1.5 g
Calcium 99 mg
Phosphorus 270 mg
Sodium 125 mg
Potassium 498 mg

INGREDIENTS

¼ cup unsalted butter
2 medium onions, chopped
2 tablespoons flour
1½ teaspoon low-sodium curry powder
3 cups low-sodium chicken broth
1 cup potatoes, chopped
½ cup celery, chopped
½ cup carrots, chopped
2 tablespoons fresh parsley, chopped
½ teaspoon fresh sage, chopped
2 pounds cooked 93 percent lean ground turkey
1½ cups milk
10 ounces frozen chopped spinach
Pepper to taste

COOKING INSTRUCTIONS

1. Melt butter in pot over medium-high heat.
2. Add onions and sauté until translucent, approximately 10 minutes.
3. Stir in flour and curry powder, cook 2 to 3 minutes.
4. Add broth, potatoes, carrots, celery, parsley and sage.
5. Bring to a boil.
6. Reduce heat to low, cover and simmer for 10 minutes.
7. Add turkey, milk and spinach.
8. Cover and simmer until heated through.
9. Add pepper to taste.

SERVING SUGGESTION

Having this soup, along with a small salad topped with your favorite vegetables, is a vegetable medley that'll certainly help protect your kidneys.

Ginger Pork Soup

Servings: 8 *Serving size: 1 cup*

INGREDIENTS

1 tablespoon olive oil
12 ounces lean boneless pork, cut into thin pieces
2 cups shiitake mushrooms, sliced
2 cloves garlic, minced
32 ounces low-sodium chicken broth or see Basic Chicken Stock recipe on page 108
2 tablespoons dry sherry
2 tablespoons low-sodium soy sauce
2 teaspoons fresh ginger
½ teaspoon crushed red pepper
2 cups Chinese cabbage, thinly sliced
1 scallion, thinly sliced

NUTRITION INFORMATION
(per serving)

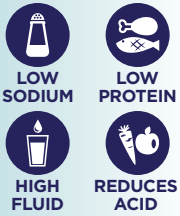
Calories 140
Fat 6.0 g
Carbohydrates 8 g
Protein 13 g
Dietary Fiber 1.1 g
Calcium 28 mg
Phosphorus 134 mg
Sodium 194 mg
Potassium 356 mg

COOKING INSTRUCTIONS

1. Add oil to large saucepan, warm on medium heat.
2. Add pork and cook for 2 to 3 minutes or until slightly pink in the center.
3. Remove pork from pan and set aside.
4. Add mushrooms and garlic to saucepan and cook until tender.
5. Stir in broth, sherry, soy sauce, ginger and red pepper and bring to a boil.
6. Stir in pork, Chinese cabbage and green onion.
7. Heat until hot throughout.

SERVING SUGGESTION

Try pairing with a side salad for a light dinner.



Creamy **Carrot Thyme** Soup

Servings: 12 *Serving size: 1 cup*

NUTRITION INFORMATION
(per serving)

Calories 100
Fat 2.6 g
Carbohydrates 17 g
Protein 3 g
Dietary Fiber 3.2 g
Calcium 50 mg
Phosphorus 65 mg
Sodium 433 mg
Potassium 393 mg

INGREDIENTS

3 pounds baby carrots or carrot chunks, peeled
8 cups low-sodium vegetable or chicken broth (see page 108 for recipe)
2 sprigs fresh thyme
½ teaspoon ground ginger
⅓ cup honey
⅓ cup heavy cream
Pepper to taste

COOKING INSTRUCTIONS

1. Combine the carrots, stock and thyme in a pot.
2. Bring to a boil, reduce the heat to low and simmer for 45 minutes to 1 hour.
3. Remove from heat and transfer the soup in 2 batches to a blender.
4. Puree the soup completely.
5. Stir in the honey and cream.
6. Add pepper, as desired.
7. Serve while warm.

Beef **Chili**

Servings: 8 *Serving size: 1 cup*

INGREDIENTS

½ cup onion, chopped
1 large (11 to 12 inches) stalk of celery
½ cup green bell pepper, chopped
1½ pounds 85 percent or leaner ground beef
16 ounces low-sodium stewed tomatoes
1 tablespoon canola oil
2 tablespoons chili powder
1½ cup water

NUTRITION INFORMATION
(per serving)

Calories 175
Fat 10.5 g
Carbohydrates 5 g
Protein 16 g
Dietary Fiber 1.4 g
Calcium 37 mg
Phosphorus 130 mg
Sodium 83 mg
Potassium 330 mg

COOKING INSTRUCTIONS

1. Chop onion, celery and bell pepper.
2. Heat large skillet on medium heat. Add oil, onion, celery and bell pepper. Cook until tender but not brown.
3. Add ground beef, breaking into small pieces, and cook until brown.
4. Blend tomatoes in a blender and add to beef mixture.
5. Add chili powder and water. Mix thoroughly; reduce heat to low.
6. Simmer for several hours.

SERVING SUGGESTION

This beef chili is far healthier than the canned products you find at the store. Serve with some roasted vegetables or mixed vegetables to top off the meal.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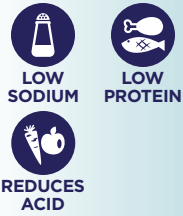
Strawberry Spinach Salad



Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

3 cups fresh spinach or 6-ounce package of pre-washed spinach
1 cup fresh strawberries, finely sliced
1 tablespoon red wine vinegar
1 tablespoon fresh lemon juice
2 tablespoons honey
⅛ teaspoon dry mustard
3 tablespoons olive oil

NUTRITION INFORMATION
(per serving)

Calories 95
Fat 6.9 g
Carbohydrates 9 g
Protein 1 g
Dietary Fiber 0.9 g
Calcium 20 mg
Phosphorus 15 mg
Sodium 13 mg
Potassium 134 mg

COOKING INSTRUCTIONS

1. Wash and dry the spinach leaves.
2. Tear into bite-size pieces and place in a bowl.
3. Top spinach with sliced strawberries.
4. In a separate bowl, mix together the vinegar, lemon juice, honey, dry mustard and oil.
5. Pour dressing over spinach and strawberries.
6. Toss well and serve immediately.


LOW SODIUM


LOW PROTEIN


REDUCES ACID

Roasted Corn and **Edamame Salad**

Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

2 ears fresh corn, unhusked, or 1¼ cups cooked corn kernels
½ cup edamame, shelled
¼ cup red onion, chopped
¼ cup red bell pepper, diced small
1 tablespoon fresh cilantro, finely chopped
1 tablespoon light mayonnaise
1 tablespoon fresh lemon juice
1½ teaspoon ginger, finely chopped or grated
⅛ teaspoon salt
⅛ teaspoon freshly ground black pepper

NUTRITION INFORMATION
(per serving)

Calories 65
Fat 2.0 g
Carbohydrates 10 g
Protein 3 g
Dietary Fiber 1.6 g
Calcium 26 mg
Phosphorus 52 mg
Sodium 71 mg
Potassium 178 mg

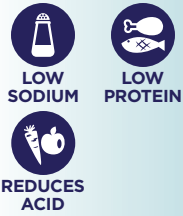
COOKING INSTRUCTIONS

1. Soak fresh corn in cold water about 30 minutes.
2. Heat grill on high.
3. Grill corn in husk, 10 to 15 minutes, turning once.
4. Let cool and remove husks.
5. Cut corn from cob into a bowl.
6. Combine with remaining ingredients.
7. Cover and chill in refrigerator until ready to serve.

NOTES

Edamame should be cooked prior to chilling in the refrigerator. Frozen varieties may be pre-cooked prior to packaging. Check package for details.

Summertime Salad



Servings: 6 *Serving size: 1½ cups*

Recipe submitted by Katelynne Burghart

INGREDIENTS

Salad:

6 cups spring lettuce mix, loosely packed
2 cups seedless grapes, halved
1 avocado, peeled, pitted and diced
½ cup goat cheese, crumbled
½ cup walnuts, toasted and chopped
¼ cup red onion, thinly sliced

Creamy Poppy Seed dressing:

3 tablespoons apple cider vinegar
¼ cup sugar
1 tablespoon onion, finely chopped
⅛ teaspoon dry mustard
⅛ teaspoon salt
3 tablespoons light mayonnaise
1 tablespoon freshly squeezed orange juice
3 tablespoons vegetable oil
½ teaspoon poppy seeds

NUTRITION INFORMATION
(per serving)

Calories 305
Fat 22.1 g
Carbohydrates 24 g
Protein 6 g
Dietary Fiber 3.9 g
Calcium 85 mg
Phosphorus 123 mg
Sodium 185 mg
Potassium 457 mg

COOKING INSTRUCTIONS

1. Combine vinegar, sugar, onion, dry mustard, salt, mayonnaise and orange juice in a food processor.
2. Process to blend well.
3. With processor still on, add vegetable oil in a steady stream and continue processing until incorporated.
4. Add poppy seeds and pulse briefly until just blended.
5. Transfer to airtight container and refrigerate until ready to use.
6. Add salad ingredients to a bowl.
7. Drizzle with vinaigrette, toss to combine.

LOW SODIUM

LOW PROTEIN

REDUCES ACID

Zucchini-Ribbon Salad

Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

2 medium zucchini
2 medium yellow squash
3 tablespoons low-sodium soy sauce
2 tablespoons rice wine vinegar
1 tablespoon sesame oil
¼ teaspoon sugar
⅛ teaspoon red pepper flakes
½ teaspoon sesame seeds

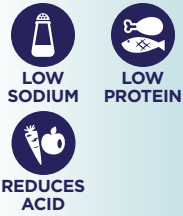
NUTRITION INFORMATION
(per serving)

Calories 50
Fat 2.8 g
Carbohydrates 5 g
Protein 2 g
Dietary Fiber 1.5 g
Calcium 22 mg
Phosphorus 60 mg
Sodium 272 mg
Potassium 358 mg

COOKING INSTRUCTIONS

1. Peel long ribbons of the zucchini and squash.
2. In a large bowl, whisk together the remaining ingredients.
3. Add the zucchini and squash, and toss to mix well.
4. Season to taste with freshly ground pepper.

Mandarin Salad



Servings: 4 *Serving size: ¼ of recipe*

INGREDIENTS

Salad:

4 cups leaf lettuce or spinach
1 cup mandarin oranges, packed in water or juice
½ cup dried cherries
2 medium apples, sliced
¼ cup toasted almonds
3 to 5 strips low-sodium bacon or turkey bacon, cooked and crumbled

Dressing:

2 tablespoons sugar substitute (Splenda, or can use sugar)
2 tablespoons apple cider vinegar
¼ teaspoon salt
2 tablespoons water
2 tablespoons olive oil
Pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 295
Fat 14.8 g
Carbohydrates 37 g
Protein 7 g
Dietary Fiber 5.2 g
Calcium 67 mg
Phosphorus 121 mg
Sodium 245 mg
Potassium 476 mg

COOKING INSTRUCTIONS

1. Mix salad ingredients.
2. In a separate bowl, mix ingredients for dressing in the order they are listed.
3. Toss salad with dressing just before serving.

Chipotle **Chicken Salad**

Servings: 4 *Serving size: ¼ of recipe*

Recipe submitted by Emily Decker

INGREDIENTS

2 cups cooked chicken, shredded
1 cup celery, chopped
¼ cup red onions, diced
½ cup light or homemade mayonnaise (see page 104 for recipe)
2 tablespoons chipotle peppers in adobo sauce
¼ teaspoon sea salt
⅛ teaspoon black pepper

NUTRITION INFORMATION
(per serving)

Calories 195
Fat 9.8 g
Carbohydrates 5 g
Protein 21 g
Dietary Fiber 0.6 g
Calcium 25 mg
Phosphorus 159 mg
Sodium 442 mg
Potassium 258 mg

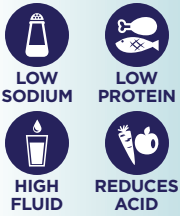
COOKING INSTRUCTIONS

1. Combine all ingredients in large bowl.
2. Mix well.

SERVING SUGGESTION

Serve on lettuce leaves, low-salt crackers or bread roll. Don't forget to pair with a side of mixed fruit or grapes to make sure you keep your dietary acid load low.

Spinach, Apple and Walnut Salad



Servings: 4 *Serving size: ¼ of recipe*

INGREDIENTS

2 large apples (Golden Delicious or other favorite), cored, diced large
¼ cup fresh lemon juice
8 cups (2 5-ounce packages) baby spinach leaves
3 tablespoons extra-virgin olive oil
1 tablespoon apple cider vinegar
2 tablespoons honey
Ground black pepper
⅔ cup crumbled goat cheese
½ cup chopped walnuts, toasted

NUTRITION INFORMATION
(per serving)

Calories 380
Fat 27.1 g
Carbohydrates 29 g
Protein 9 g
Dietary Fiber 5.1 g
Calcium 153 mg
Phosphorus 182 mg
Sodium 170 mg
Potassium 580 mg

COOKING INSTRUCTIONS

1. Toss apples with 2 tablespoons of the lemon juice.
2. Place spinach in a large bowl; remove long stems and bruised leaves.
3. Whisk together remaining juice, olive oil, vinegar, honey and ground pepper to taste.
4. Toss spinach with apples and dressing.

SERVING SUGGESTION

Divide among 4 bowls. Top with cheese and walnuts.

Dialysis-friendly option:

Due to potassium content, individuals on dialysis and watching their potassium intake should either make this salad an entire meal or select another salad lower in potassium.

LOW SODIUM

LOW PROTEIN

REDUCES ACID

Mexican **Vegetable Salad**

Servings: 6 *Serving size: ⅙ of recipe*

Recipe submitted by Nicole Harr

INGREDIENTS

2 medium tomatoes, seeded and chopped
1 cucumber, cut into bite-size chunks
½ medium red onion, chopped
1 medium red bell pepper, cut into chunks
2 large (11 to 12 inches) stalks of celery, chopped
1 jalapeño, seeded and finely chopped
2 tablespoons fresh cilantro
2 teaspoons Tabasco
2 limes, juiced
2 tablespoons olive oil
Salt and pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 70
Fat 4.8 g
Carbohydrates 7 g
Protein 1 g
Dietary Fiber 1.9 g
Calcium 24 mg
Phosphorus 34 mg
Sodium 88 mg
Potassium 288 mg

COOKING INSTRUCTIONS

1. Combine vegetables in a bowl.
2. Sprinkle with chopped cilantro.
3. Dress salad with hot sauce, lime juice and olive oil.
4. Season with salt and pepper.
5. Serve chilled.

Fall Harvest **Orzo Salad**

Servings: 8 *Serving size: 1¾ cup*

INGREDIENTS

4 cups cooked orzo, chilled (about 1⅔ cup dried orzo)
1 cup dried cranberries
2 cups apple, diced
¼ cup extra-virgin olive oil
¼ cup fresh lemon juice
½ teaspoon freshly ground black pepper
2 tablespoons fresh basil, chopped
½ cup crumbled blue cheese
¼ cup blanched almonds, chopped

NUTRITION INFORMATION
(per serving)

Calories 305
Fat 13.5 g
Carbohydrates 40 g
Protein 7 g
Dietary Fiber 3.6 g
Calcium 71 mg
Phosphorus 110 mg
Sodium 121 mg
Potassium 146 mg

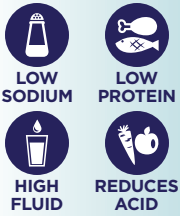
COOKING INSTRUCTIONS

1. Prepare the orzo as directed on the packaging.
2. In a medium bowl, add all of the ingredients except blue cheese and almonds, gently combining until well incorporated.
3. Transfer the mixture to a serving dish, sprinkle with the crumbled blue cheese and almonds and serve.

Sides

Warm Potato and Kale Mix

Warm **Potato and Kale** Mix



Servings: 2 *Serving size: ½ of recipe*

INGREDIENTS

2 large potatoes, peeled
1 cup fresh kale leaves, packed
1 tablespoon olive oil
½ cup onion, chopped
1 clove garlic, minced
½ teaspoon dried thyme
1 small tomato, chopped
½ cup low-sodium white beans, drained and rinsed
Pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 350
Fat 7.4 g
Carbohydrates 65 g
Protein 10 g
Dietary Fiber 9.1 g
Calcium 104 mg
Phosphorus 178 mg
Sodium 162 mg
Potassium 1,233 mg

COOKING INSTRUCTIONS

1. Dice potatoes and steam until just tender (about 10 minutes). Set aside.
2. Wash and remove stems from kale, then chop into ½-inch slices.
3. In nonstick skillet, heat oil on medium.
4. Add onion, garlic and thyme; sauté until onion is soft (about 3 minutes).
5. Add kale and tomato, sauté for an additional 1 to 2 minutes or until kale has wilted.
6. Add potatoes and beans, stir until mixed and warm throughout.
7. Season with pepper to taste and serve immediately.

Dialysis-friendly option:

For individuals on dialysis and watching potassium intake, this recipe is higher in potassium, even with boiling potatoes, and should be avoided.

Spicy **Sweet Potato Fries**

Servings: 6 *Serving size: 1 potato*

Recipe submitted by Nicole Harr

INGREDIENTS

6 medium sweet potatoes (about 2¼ pounds)
Vegetable cooking spray
2 teaspoons sugar
½ teaspoon salt (optional)
¼ teaspoon ground red pepper
⅛ teaspoon black pepper

NUTRITION INFORMATION
(per serving)

Calories 115
Fat 0.8 g
Carbohydrates 25 g
Protein 2 g
Dietary Fiber 3.8 g
Calcium 44 mg
Phosphorus 62 mg
Sodium 238 mg
Potassium 544 mg

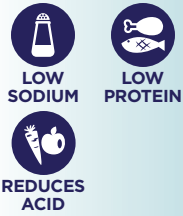
COOKING INSTRUCTIONS

1. Preheat oven to 500° F.
2. Peel potatoes; cut lengthwise.
3. Place in a large bowl; coat with cooking spray.
4. Combine sugar, salt and peppers and sprinkle over potatoes, tossing well to coat.
5. Arrange potatoes, cut sides down, in a single layer on a baking sheet.
6. Bake for 10 minutes; turn wedges over.
7. Bake an additional 10 minutes or until tender and beginning to brown.

Dialysis-friendly option:

Individuals on dialysis and watching their potassium intake should boil potatoes prior to baking (see page 19). Doing this will reduce the potassium by 50 percent. If you cut the fries thinner, more potassium can be removed.

Mashed **Tomato Potatoes**



Servings: 8 *Serving size: ⅛ of recipe*

INGREDIENTS

2 pounds Yukon Gold potatoes (about 6), peeled and cut into 2-inch pieces
2 garlic cloves, peeled
½ cup milk
¼ cup unsalted butter
¼ cup fresh flat-leaf parsley, chopped
3 medium scallions, trimmed and chopped
½ cup grated Parmesan cheese
½ teaspoon kosher salt
5 medium tomatoes, chopped

NUTRITION INFORMATION
(per serving)

Calories 190
Fat 8.1 g
Carbohydrates 25 g
Protein 6 g
Dietary Fiber 3.2 g
Calcium 114 mg
Phosphorus 125 mg
Sodium 262 mg
Potassium 578 mg

COOKING INSTRUCTIONS

1. Place the potatoes and garlic in a large saucepan and cover with water.
2. Bring to a boil; cover and simmer about 20 minutes or until a fork easily pierces a potato.
3. Drain the potatoes and garlic.
4. Mash with a potato masher or a fork until smooth.
5. Blend in the milk, butter, parsley, scallions, Parmesan and salt.
6. Gently fold in the tomatoes.

Dialysis-friendly option:

For individuals on dialysis and watching potassium intake, this recipe is higher in potassium, even with boiling potatoes, and should be avoided.

LOW SODIUM
LOW PROTEIN
HIGH FLUID
REDUCES ACID

Grilled Sweet Potatoes and Scallions

Servings: 4 *Serving size: ¼ of recipe*

INGREDIENTS

4 large sweet potatoes, par-cooked and cut into ½-inch slices
8 medium scallions, sliced
¾ cup olive oil, divided
2 tablespoons Dijon mustard
½ cup apple cider vinegar
¼ cup balsamic vinegar
2 teaspoons honey
Freshly ground pepper
¼ cup fresh flat-leaf parsley, coarsely chopped

NUTRITION INFORMATION
(per serving)

Calories 570
Fat 41.3 g
Carbohydrates 46 g
Protein 5 g
Dietary Fiber 7.1 g
Calcium 106 mg
Phosphorus 123 mg
Sodium 257 mg
Potassium 1,007 mg

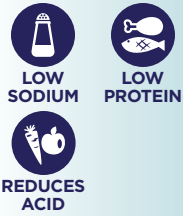
COOKING INSTRUCTIONS

1. Preheat grill to high.
2. Brush potatoes and scallions with oil, and arrange on grill.
3. Grill potatoes for 3 to 4 minutes on each side, or until just tender.
4. Grill scallions until softened and marked.
5. Remove scallions from the grill and cut into thin slices.
6. In a large bowl, whisk together ½ cup olive oil, mustard, vinegars and honey. Season with pepper to taste.
7. Add potatoes, scallions and parsley, and toss until potatoes are well coated.
8. Transfer to a platter and serve.

Dialysis-friendly option:

For individuals on dialysis and watching potassium intake, avoid this recipe due to the potassium content. If you want a potato, consider using the methods discussed on page 19.

Roasted **Brussels Sprouts**



Servings: 6 *Serving size: ½ cup*

Recipe submitted by Nicole Harr

INGREDIENTS

1 pound Brussels sprouts, rinsed, ends trimmed, rough outer leaves of larger sprouts removed
1 tablespoon garlic, minced (about 3 cloves)
1 teaspoon fresh lemon juice
2 tablespoons olive oil
Salt
Freshly ground black pepper
¼ cup Parmesan cheese, freshly grated (optional)

NUTRITION INFORMATION
(per serving)

Calories 85
Fat 6.1 g
Carbohydrates 6 g
Protein 4 g
Dietary Fiber 2.0 g
Calcium 76 mg
Phosphorus 74 mg
Sodium 128 mg
Potassium 244 mg

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Place Brussels sprouts in a cast-iron frying pan or a roasting pan.
3. Toss in the garlic.
4. Sprinkle Brussels sprouts with lemon juice.
5. Toss with oil so that the sprouts are well coated.
6. Sprinkle generously with salt (at least a ½ teaspoon) and a few turns of black pepper mill.
7. Put Brussels sprouts in oven on top rack, cook for 20 minutes, then stir to coat sprouts with the oil in the pan.
8. Cook for another 10 minutes.
9. Sprinkle with Parmesan (if using) and cook for another 5 minutes. Serve warm.

NOTES

Adjust the timing depending on the size of the sprouts. They should be nicely browned, some of the outside leaves crunchy, and the interior should be cooked through. If the sprouts look like they are getting too brown (they should be well browned, not burned), move them to a lower rack or reduce the heat.

LOW SODIUM LOW PROTEIN

Grilled Asparagus With Mozzarella

Servings: 4 *Serving size: 5 asparagus stalks*

INGREDIENTS

Asparagus:

20 large asparagus stalks, peeled

¼ pound fresh part-skim or low-fat mozzarella, cut into 4 half-inch thick slices

Dressing:

4 tablespoons fresh lemon juice
1 small shallot, finely chopped
1 tablespoon fresh parsley, finely chopped
1 teaspoon dried oregano
¼ cup olive oil
Freshly ground pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 230
Fat 19.5 g
Carbohydrates 7 g
Protein 10 g
Dietary Fiber 2.2 g
Calcium 239 mg
Phosphorus 203 mg
Sodium 200 mg
Potassium 274 mg

COOKING INSTRUCTIONS

1. Preheat grill.
2. In small bowl, mix all of the dressing ingredients together and set aside.
3. Brush asparagus with olive oil mixture, and season with pepper to taste.
4. Grill for 3 to 4 minutes or until just tender.
5. Divide the asparagus among 4 plates and immediately top with a slice of mozzarella.

Dialysis-friendly option:

Individuals on dialysis should reduce cheese by half to reduce the phosphorus content of this recipe. Also, remember to take your phosphorus binders if they have been prescribed to you.

Grilled **Vegetables**

LOW SODIUM
LOW PROTEIN
REDUCES ACID

Servings: 4 *Serving size: ¼ of recipe*

INGREDIENTS

1 medium onion, cut into large chunks
1 medium zucchini, cut into thick slices
1 medium yellow squash, cut into thick slices
1 small sweet potato, cut into small cubes
2 tablespoons olive oil
1 clove garlic, minced
Pinch of salt
Pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 80
Fat 3.9 g
Carbohydrates 11 g
Protein 2 g
Dietary Fiber 2.5 g
Calcium 43 mg
Phosphorus 66 mg
Sodium 45 mg
Potassium 389 mg

COOKING INSTRUCTIONS

1. Put all vegetables in large bowl.
2. Mix oil, garlic, salt and pepper in small bowl and pour over vegetables. Stir until all vegetables are coated.
3. Arrange vegetables on flat baking sheet or grill basket. Cook on medium-high grill until vegetables are cooked and just starting to brown, approximately 10 to 20 minutes.
4. Serve immediately.

NOTES

Cover the baking sheet with foil for easy cleaning. Make it your own by using any vegetables you like.

Noodles **Romano**

Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

½ cup unsalted butter (divided)
2 tablespoons dried parsley
1 teaspoon dried basil
6 ounces light or reduced-fat cream cheese
⅛ teaspoon pepper
8 ounces whole wheat spaghetti
1 garlic clove
¾ cup Parmesan cheese

NUTRITION INFORMATION
(per serving)

Calories 380
Fat 23.9 g
Carbohydrates 32 g
Protein 13 g
Dietary Fiber 3.2 g
Calcium 211 mg
Phosphorus 237 mg
Sodium 332 mg
Potassium 157 mg

COOKING INSTRUCTIONS

1. Combine ¼ cup butter, parsley flakes and basil.
2. Blend cream cheese and pepper in with butter mixture.
3. Stir in ⅔ cup boiling water. Blend mixture well.
4. Keep warm over pan of hot water.
5. Cook noodles in unsalted water until just tender; drain.
6. Cook minced garlic in ¼ cup butter for 1 to 2 minutes, then pour over noodles, tossing lightly and quickly to coat well.
7. Sprinkle with ½ cup Parmesan cheese; toss again.
8. Pile noodles on warm serving platter.
9. Spoon warm cream cheese sauce over noodles.
10. Sprinkle with remaining ¼ cup Parmesan cheese.
11. Garnish with additional parsley.

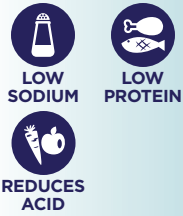
SERVING SUGGESTION

A dish worthy of an entree, but make sure to serve with some type of vegetables on the side to balance out the acids from the cheese.

Dialysis-friendly option:

Individuals on dialysis should reduce cheese by half to reduce the phosphorus content of this recipe. Also, remember to take your phosphorus binders if they have been prescribed to you.

Quinoa With **Black Beans and Avocado**



Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

1 tablespoon olive oil
1 cup dry quinoa, rinsed
1¾ cups water
1 can (16 ounces) low-sodium black beans, drained and rinsed (rinse twice to reduce sodium)
1 avocado, chopped into chunks
¾ cup cherry tomatoes, quartered
½ medium red onion, diced
1 small garlic clove, minced
1 medium red bell pepper, chopped into chunks
¼ cup fresh cilantro, chopped

Dressing:

1 lime, juiced
½ tablespoon olive oil
½ teaspoon cumin

NUTRITION INFORMATION
(per serving)

Calories 260
Fat 9.1 g
Carbohydrates 37 g
Protein 9 g
Dietary Fiber 9.7 g
Calcium 62 mg
Phosphorus 230 mg
Sodium 8 mg
Potassium 596 mg

COOKING INSTRUCTIONS

1. Warm the olive oil in a medium saucepan over medium heat. Add rinsed quinoa and toast for 2 to 3 minutes until it starts to smell nutty.
2. Add water, stir once, cover and simmer with a lid for 20 minutes.
3. While quinoa is cooking, prepare dressing by combining the lime juice, oil and cumin. Whisk aggressively. Adjust seasoning to taste.
4. When the quinoa is finished, remove from heat and fluff with a fork. Add black beans and toss to warm through.
5. Let the quinoa cool for about 5 minutes and then add all of the remaining ingredients, including dressing, and mix. Adjust seasoning if necessary.

Dialysis-friendly option:

If on dialysis and watching potassium intake, leave avocado out of recipe.


LOW SODIUM


LOW PROTEIN


REDUCES ACID

Roasted **Vegetables**

Servings: 8 *Serving size: ⅛ of recipe*

Recipe submitted by Nicole Harr

INGREDIENTS

1 small butternut squash, cubed
2 medium red bell peppers, seeded and diced
1 small sweet potato, peeled and cubed
2 small Yukon Gold potatoes, cubed
1 medium red onion, quartered
1 tablespoon fresh thyme, chopped
2 tablespoons fresh rosemary, chopped
3 tablespoons olive oil
1½ tablespoons balsamic vinegar
Salt to taste
Freshly ground black pepper

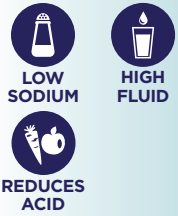
NUTRITION INFORMATION
(per serving)

Calories 95
Fat 3.6 g
Carbohydrates 16 g
Protein 2 g
Dietary Fiber 2.6 g
Calcium 29 mg
Phosphorus 47 mg
Sodium 46 mg
Potassium 381 mg

COOKING INSTRUCTIONS

1. Preheat oven to 475° F.
2. In a large bowl, combine the squash, red bell peppers, sweet potato and Yukon Gold potatoes. Separate red onion quarters into pieces and add them to the mixture.
3. In a small bowl, stir together thyme, rosemary, olive oil, vinegar, salt and pepper.
4. Toss oil mixture with vegetables until they are coated.
5. Spread evenly on a large pan.
6. Roast for 35 to 40 minutes in the oven, stirring every 10 minutes or until vegetables are cooked through and browned.

Couscous and **Feta-Stuffed Peppers**



Servings: 4 *Serving size: 1 stuffed pepper*

INGREDIENTS

Vegetable oil cooking spray
1¼ cups low-sodium chicken or vegetable broth
⅔ cup couscous
4 large bell peppers, mixed colors
1¼ tablespoon olive oil
½ cup onion, chopped
6 ounces zucchini, quartered lengthwise, then sliced across thinly
6 ounces yellow squash, quartered lengthwise, then sliced across thinly
½ teaspoon fennel seeds
½ teaspoon dried oregano
1 cup cherry tomatoes, cut in half
15 ounces canned low-sodium garbanzo beans, drained and rinsed
4 ounces low-fat or reduced-fat crumbled feta cheese

NUTRITION INFORMATION
(per serving)

Calories 400
Fat 12.1 g
Carbohydrates 57 g
Protein 19 g
Dietary Fiber 9.5 g
Calcium 151 mg
Phosphorus 272 mg
Sodium 385 mg
Potassium 797 mg

COOKING INSTRUCTIONS

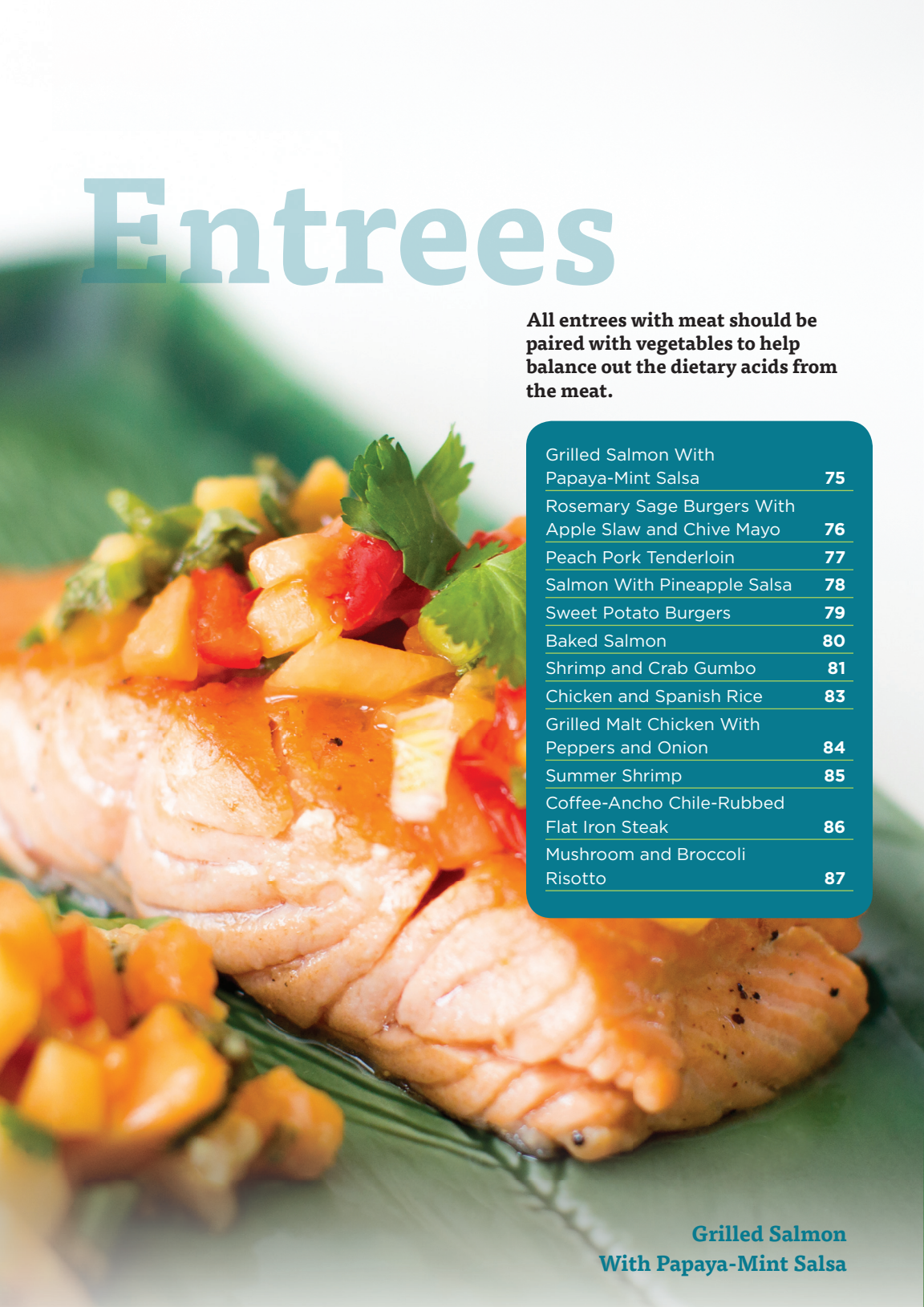
1. Preheat oven to 350° F.
2. Coat a small baking dish with cooking spray.
3. Bring the broth to a boil in a saucepan, add the couscous, cover the pan and remove it from the heat.
4. Meanwhile, boil water in a large pot. Cut the stems and top ½-inch off the bell peppers; scoop out the seeds and membranes. Boil trimmed peppers for 5 minutes, then drain them upside down.
5. Heat oil in a nonstick skillet. Add onion, zucchini, yellow squash, fennel seeds and oregano.
6. Cook, stirring frequently, for 5 minutes or until softened.
7. Remove from heat and stir in the tomatoes and garbanzo beans.
8. Using a fork, scrape the couscous into the skillet and toss with the vegetables.
9. Stir in the crumbled feta cheese.
10. Place peppers upright in the baking dish and fill them with couscous.
11. Bake 15 minutes. Serve immediately.

Dialysis-friendly option:

For individuals on dialysis and watching potassium and phosphorus intake, this recipe should be avoided.

Entrees

All entrees with meat should be paired with vegetables to help balance out the dietary acids from the meat.



Grilled Salmon With Papaya-Mint Salsa

Grilled Salmon With **Papaya-Mint Salsa**

Servings: 4 *Serving size: 1 salmon steak*

INGREDIENTS

¼ cup papaya, peeled and chopped
¼ cup yellow bell pepper, chopped
¼ cup green onion, thinly sliced
1 tablespoon pimiento, chopped
1 tablespoon fresh mint, chopped
1 tablespoon rice wine or white vinegar
1 tablespoon fresh lime juice
1 teaspoon fresh ginger, grated
1 teaspoon jalapeño pepper, seeded and minced
Vegetable oil cooking spray
4 salmon steaks (4 ounces each) or fillets, about 1 to 1¼ inches thick

NUTRITION INFORMATION
(per serving)

Calories 195
Fat 8.9 g
Carbohydrates 3 g
Protein 25 g
Dietary Fiber 0.5 g
Calcium 21 mg
Phosphorus 345 mg
Sodium 56 mg
Potassium 533 mg

COOKING INSTRUCTIONS

1. For salsa, combine all ingredients except the salmon in a small bowl.
2. Cover and chill at least 30 minutes.
3. Lightly coat grill or broiler pan with cooking spray.
4. Sprinkle both sides of salmon with pepper.
5. Grill or broil for 5 minutes on each side or until done.
6. Top each salmon steak with ¼ cup salsa.

SERVING SUGGESTION

Pair with whole-wheat couscous and side salad or fruit dish.

Rosemary Sage Burger With **Apple Slaw and Chive Mayo**

Servings: 4 *Serving size: 1 burger*

INGREDIENTS

Burgers:

6 ounces 90 percent extra-lean ground round beef
6 ounces lean ground pork
1 tablespoon fresh rosemary, chopped
1 teaspoon ground sage
¼ teaspoon salt
4 whole-grain buns
1 cup baby spinach leaves

Chive mayo:

½ cup nonfat sour cream
2 tablespoons chives, chopped
1 dash salt
1 dash pepper

Apple slaw:

3 medium green apples, peeled, cored and grated
2 teaspoons extra-virgin olive oil
1 teaspoon fresh lemon juice

NUTRITION INFORMATION
(per serving)

Calories 285
Fat 12.5 g
Carbohydrates 25 g
Protein 19 g
Dietary Fiber 2.6 g
Calcium 77 mg
Phosphorus 192 mg
Sodium 356 mg
Potassium 420 mg

COOKING INSTRUCTIONS

1. Preheat grill to medium-high.
2. Combine beef, pork, rosemary, sage and salt in a medium-size bowl; form into 4 patties.
3. In a small bowl, combine chive mayo ingredients.
4. In a medium bowl, combine slaw ingredients.
5. Grill patties 4 minutes on each side or until juices run clear.
6. Toast the buns and spread each top with the chive mayo. Place burger on bun, then top with slaw and several spinach leaves.

SERVING SUGGESTION

Baked fries will help balance out the acids in the burger.

Peach **Pork Tenderloin**

Servings: 8 *Serving size: ⅛ of recipe*

LOW SODIUM

HIGH ACID

INGREDIENTS

2 pork tenderloins (1 pound each), trimmed
Salt (optional)
Fresh ground black pepper
½ teaspoon olive oil
3 medium peaches (firm but ripe), pitted and wedged
½ cup dry white wine or white wine vinegar
⅓ cup packed light brown sugar
½ cup water
1 lemon, juiced
2 teaspoons whole-grain mustard
¼ teaspoon pepper
¼ teaspoon fresh rosemary, chopped plus 1 to 2 additional springs

NUTRITION INFORMATION
(per serving)

Calories 190
Fat 4.4 g
Carbohydrates 15 g
Protein 22 g
Dietary Fiber 0.9 g
Calcium 19 mg
Phosphorus 277 mg
Sodium 85 mg
Potassium 580 mg

COOKING INSTRUCTIONS

1. Preheat grill to high.
2. Pat pork dry and season with pepper (and salt lightly, if you wish).
3. Grill pork on lightly oiled grill until marked, about 10 minutes on each side.
4. While the meat is cooking, combine peaches, wine/vinegar, brown sugar and water in a saucepan.
5. Peel strips of lemon skin into pan and squeeze in the juice.
6. Cover and cook on medium to high heat until peaches are tender, about 5 minutes.
7. Move solid ingredients to another bowl with a slotted spoon.
8. Add mustard, pinch of salt and ¼ teaspoon pepper to the juice in the pan.
9. Move ⅓ cup of the juice to a bowl, add chopped rosemary and brush onto pork; grill pork for additional 10 to 15 minutes, until thermometer in the thickest part of the meat shows 145° F. Transfer pork to cutting board to cool.
10. Simmer remaining liquid in saucepan for a few minutes until it thickens; remove from heat, add peaches and rosemary sprigs.
11. Slice pork and serve with peach sauce.

Dialysis-friendly option:

For individuals on dialysis watching potassium intake, this recipe should be avoided.

LOW SODIUM

HIGH ACID

Salmon With **Pineapple Salsa**

Servings: 6 *Serving size: 4 ounces*

NUTRITION INFORMATION
(per serving)

Calories 185
Fat 7.2 g
Carbohydrates 8 g
Protein 22 g
Dietary Fiber 0.4 g
Calcium 19 mg
Phosphorus 297 mg
Sodium 180 mg
Potassium 457 mg

INGREDIENTS

1½ pounds salmon fillets

Marinade:

2 tablespoons low-sodium soy sauce
½ clove garlic, minced
¼ teaspoon ground ginger
2 tablespoons brown sugar
¼ cup unsweetened pineapple juice
1½ tablespoons apple cider vinegar

Pineapple salsa:

¼ cup red bell pepper, finely chopped
2 tablespoons fresh cilantro, finely chopped
2 tablespoons red onion, finely chopped
1 cup fresh pineapple, chopped

COOKING INSTRUCTIONS

1. In small bowl, make marinade by mixing soy sauce, garlic, ginger, brown sugar, pineapple juice and apple cider vinegar.
2. Measure out 2 tablespoons and set aside for pineapple salsa.
3. Place salmon in large resealable plastic bag or glass dish. Add the rest of the marinade minus 2 tablespoons (held aside); turn to coat well. Refrigerate 15 minutes or longer for extra flavor.
4. Make pineapple salsa by mixing 2 tablespoons of the marinade, pineapple, bell pepper, cilantro and onion in small bowl until well blended.
5. Remove salmon from marinade. Discard remaining marinade.
6. Grill salmon over medium-high heat 6 to 7 minutes per side or until fish flakes easily with a fork, brushing with remaining 2 tablespoons marinade halfway through cooking.
7. Serve salmon with pineapple salsa.

Sweet Potato Burgers

LOW SODIUM

REDUCES ACID

Servings: 4 *Serving size: 1 burger*

Recipe submitted by Hannah Harnden, 23 years old with PKD, first generation

INGREDIENTS

1 medium sweet potato, peeled and cubed
1 can (15.5 ounces) low-sodium black beans
½ cup onion, chopped
¾ teaspoon apple cider vinegar
1 teaspoon garlic powder
½ teaspoon chili powder
Pinch of salt
⅓ cup all-purpose flour
1 cup greens
1 cup panko for coating
¼ cup olive oil
4 whole-grain buns
Toppings: Avocado, spicy mustard, greens and tomato

NUTRITION INFORMATION
(per serving)

Calories 365
Fat 6.8 g
Carbohydrates 62 g
Protein 15 g
Dietary Fiber 12.9 g
Calcium 126 mg
Phosphorus 247 mg
Sodium 286 mg
Potassium 632 mg

COOKING INSTRUCTIONS

1. Cook potato and mash together with black beans.
2. Add the onion, vinegar, garlic powder, chili powder, salt, flour and greens; continue to mash with a fork.
3. Form into 4 patties and coat with panko.
4. Fry in pan and serve with toppings of your choice.

Dialysis-friendly option:

If on dialysis and watching potassium intake, consider first boiling the potato based on instructions on page 19 and do not top with avocado.

LOW SODIUM

HIGH ACID

Baked **Salmon**

Servings: 4 *Serving size: 1 fillet*

Recipe submitted by Nicole Harr

INGREDIENTS

2 cloves garlic, minced
3 tablespoons light olive oil
1 teaspoon dried basil
Pinch of salt (optional)
¼ teaspoon ground black pepper
½ tablespoon fresh lemon juice
½ tablespoon fresh parsley, chopped
4 4-ounce salmon fillets

NUTRITION INFORMATION
(per serving)

Calories 245
Fat 17.3 g
Carbohydrates 1 g
Protein 21 g
Dietary Fiber 0.2 g
Calcium 19 mg
Phosphorus 291 mg
Sodium 83 mg
Potassium 416 mg

COOKING INSTRUCTIONS

1. In a medium glass bowl, prepare marinade by mixing garlic, light olive oil, basil, salt, pepper, lemon juice and parsley.
2. Place salmon fillets in a medium glass baking dish and cover with the marinade.
3. Marinate in the refrigerator about 1 hour, turning occasionally.
4. Preheat oven to 375° F.
5. Place fillets in aluminum foil, cover with marinade and seal.
6. Place sealed salmon in the glass dish and bake 35 to 45 minutes, until easily flaked with a fork.

Shrimp and Crab **Gumbo**

Servings: 6 *Serving size: 2 cups*

INGREDIENTS

¼ cup olive oil
⅓ cup all-purpose flour
1 cup bell pepper, chopped
1½ cups onion, diced
1 clove garlic, chopped
1 tablespoon celery leaves or diced celery
4 cups water (divided use)
4 cups low-sodium chicken broth (see page 108)
8 ounces uncooked fresh shrimp
6 ounces crab meat (can also use imitation crab meat)
1 cup green onion tops, diced
¼ cup fresh parsley, chopped
Pepper to taste
1 teaspoon hot sauce (optional)
6 cups cooked white rice (1 cup mixed in; 5 cups for serving gumbo over)

NUTRITION INFORMATION
(per serving)

Calories 415
Fat 11.2 g
Carbohydrates 60 g
Protein 18 g
Dietary Fiber 2.0 g
Calcium 75 mg
Phosphorus 283 mg
Sodium 501 mg
Potassium 418 mg

COOKING INSTRUCTIONS

1. Make a roux by heating oil and flour in a large skillet over medium heat. Stir constantly until flour is pecan-colored.
2. Add bell pepper, onion, garlic, celery leaves and 1 cup water.
3. Cover and cook on very low heat until vegetables are tender.
4. Increase heat to high, and add 3 cups water and 4 cups low-sodium chicken broth. Boil for 5 minutes.
5. Reduce to medium heat, and add shrimp and crab meat. Boil 10 minutes.
6. Add green onion tops and parsley.
7. Reduce to low heat, and simmer for 5 minutes.
8. Add 1 cup cooked rice.
9. Season with pepper and hot sauce.
10. Serve gumbo over hot rice.

NOTES

Frozen shrimp are often high in sodium.

Chicken and **Spanish Rice**

Servings: 5 *Serving size: ⅕ of recipe*

INGREDIENTS

1 cup onions, chopped
¾ cup green pepper, chopped
1 tablespoon olive oil
1 can (8 ounces) low-sodium tomato sauce
1 teaspoon fresh parsley, chopped
½ teaspoon black pepper
¼ teaspoon garlic, minced
5 cups cooked brown rice (cooked in unsalted water)
2½ cups chicken breasts, cooked, skin and bone removed, diced

NUTRITION INFORMATION
(per serving)

Calories 360
Fat 7.0 g
Carbohydrates 51 g
Protein 23 g
Dietary Fiber 6.7 g
Calcium 51 mg
Phosphorus 300 mg
Sodium 57 mg
Potassium 379 mg

COOKING INSTRUCTIONS

1. In a large skillet, sauté onions and green peppers in oil for 5 minutes on medium heat.
2. Add tomato sauce and spices. Heat through.
3. Add cooked rice and chicken. Heat through.

Grilled Malt Chicken
With Peppers and Onion

Servings: 8 *Serving size: 3 ounces*

Recipe submitted by Geno Leage, PKD chapter volunteer

NUTRITION INFORMATION
(per serving)

Calories 155
Fat 6.3 g
Carbohydrates 4 g
Protein 20 g
Dietary Fiber 0.9 g
Calcium 23 mg
Phosphorus 156 mg
Sodium 215 mg
Potassium 276 mg

INGREDIENTS

4 4-ounce chicken breasts, skinless
1 medium yellow bell pepper, sliced
1 medium red bell pepper, sliced
1 medium onion, sliced
4 ounces mushrooms, Crimini or button, washed and sliced
3 cloves garlic, minced
½ teaspoon dried oregano
Pinch salt and pepper, to taste

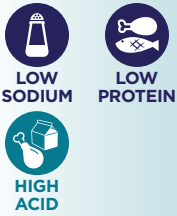
Marinade:

3 tablespoons malt vinegar
¼ cup olive oil
1 shallot sliced
1 teaspoon dried oregano
½ teaspoon salt
½ teaspoon black ground pepper

COOKING INSTRUCTIONS

1. Heat grill to medium-high heat.
2. Combine all marinade ingredients and mix well. Place the chicken and marinade in a resealable bag. Marinate the chicken for 30 to 45 minutes.
3. Remove chicken and let drain for a moment. Place on the grill to cook.
4. Sauté the onion and pepper in a separate pan. Cook for about 5 minutes, then add mushrooms. Cook until all vegetables are soft.
5. Turn chicken on the grill, cook until cooked thoroughly.
6. Place the chicken on the plate first and cover with the vegetables.

Summer **Shrimp**



Servings: 4 *Serving size: 2 skewers*

INGREDIENTS

Marinade:

2 cloves garlic, smashed
1 tablespoon olive oil
2 teaspoons fresh lime juice
1 teaspoon dried oregano
1 teaspoon low-sodium Worcestershire sauce
¼ teaspoon freshly ground black pepper

Shrimp:

1 small red onion
8 bamboo skewers, 10 inches long, soaked in water for 30 minutes
24 large fresh shrimp (about 1 pound), peeled and deveined
16 serrano chilies

NUTRITION INFORMATION
(per serving)

Calories 85
Fat 3.6 g
Carbohydrates 4 g
Protein 9 g
Dietary Fiber 1.3 g
Calcium 40 mg
Phosphorus 104 mg
Sodium 48 mg
Potassium 218 mg

COOKING INSTRUCTIONS

1. In a blender or mini food processor, process all marinade ingredients until smooth.
2. Toss shrimp with marinade in a bowl to coat well. Set aside at least 10 minutes or up to 2 hours.
3. Cut onion in half and each half into quarters.
4. Thread 1 chili onto each skewer. Add 1 shrimp and a chunk of onion; repeat twice. Finish each skewer with a second chili.
5. Heat a cast-iron grill pan or an electric or gas grill over high heat.
6. Cook skewers, covered, turning once, until shrimp are cooked through and onions are charred and just tender, about 5 minutes per side.
7. Serve with salsa.

NOTES

If using metal skewers, spray with a vegetable oil cooking spray. If using a charcoal grill, be sure to adjust cooking time because the shrimp will cook faster. Frozen shrimp are often high in sodium.

Coffee-Ancho Chile-Rubbed **Flat Iron Steak**

Servings: 4 *Serving size: 1 steak*

Recipe submitted by Geno Leage, PKD chapter volunteer

NUTRITION INFORMATION
(per serving)

Calories 290
Fat 21.1 g
Carbohydrates 5 g
Protein 20 g
Dietary Fiber 0.9 g
Calcium 17 mg
Phosphorus 169 mg
Sodium 155 mg
Potassium 365 mg
Caffeine 7 mg

INGREDIENTS

4 4-ounce flat iron steaks
Coffee-Ancho Chile Rub (see recipe on page 105)
½ cup chicken stock
1 teaspoon cornstarch
1½ teaspoons water

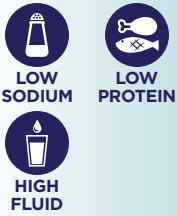
COOKING INSTRUCTIONS

1. Generously rub steaks with spice rub and let sit for 30 minutes before cooking.
2. Cook to your preferred doneness.
3. Remove from pan, but leave the pan on the burner and add the stock.
4. Combine cornstarch and water.
5. Bring the stock to a quick boil, add the cornstarch slurry and whisk. The stock will thicken quickly; remove from heat and serve over the steak.

SERVING SUGGESTION

Serve with potato and vegetable side dishes from the *Sides* section starting on page 62.

Mushroom and Broccoli **Risotto**



Servings: 4 *Serving size: ¼ of recipe*

Recipe submitted by Geno Leage, PKD chapter volunteer

INGREDIENTS

2 - 2½ cups chicken stock (see recipe on page 108)
8 ounces button mushrooms, washed and sliced
½ medium onion, diced
2 cloves garlic, minced
¼ pound broccoli florets, cut into bite-size pieces
1 tablespoon olive oil
1 cup Arborio rice
⅓ cup white wine
2 tablespoons Parmesan cheese, grated
Pepper to taste

NUTRITION INFORMATION
(per serving)

Calories 300
Fat 5.8 g
Carbohydrates 49 g
Protein 10 g
Dietary Fiber 2.5 g
Calcium 76 mg
Phosphorus 189 mg
Sodium 136 mg
Potassium 419 mg

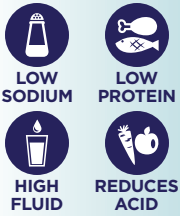
COOKING INSTRUCTIONS

1. Heat chicken stock.
2. Prep vegetables and measure out dry goods. Once the stock comes to a boil, remove from heat and set aside.
3. Heat olive oil in medium-size saucepan; add onion, mushrooms and garlic. Sauté until onions become soft.
4. Add the risotto and the rice and cook for a few minutes.
5. Add the wine and reduce by half.
6. Add 1 cup of the hot stock; stir rice continuously as it absorbs the stock. Continue adding more stock and stirring.
7. After all stock is added, mix in the broccoli.
8. After the stock is absorbed and the rice is tender, add Parmesan cheese and season to taste.

Desserts

Strawberry-Mango Parfaits With Ginger Topping

Strawberry-Mango Parfaits
With Ginger Topping



Servings: 4 *Serving size: 1 parfait*

INGREDIENTS

1 pint fresh strawberries, stemmed and sliced
2 tablespoons granulated sugar or to taste
2 tablespoons orange juice
2 teaspoons orange rind, grated
1 pint mango or orange sorbet
1 pint light or reduced-fat strawberry ice cream
½ cup gingersnap crumbs
2 tablespoons crystallized ginger, coarsely chopped (optional)

NUTRITION INFORMATION
(per serving)

Calories 380
Fat 7.2 g
Carbohydrates 78 g
Protein 4 g
Dietary Fiber 2.9 g
Calcium 128 mg
Phosphorus 106 mg
Sodium 142 mg
Potassium 351 mg

COOKING INSTRUCTIONS

1. Toss strawberries, sugar, juice and rind in a bowl; set aside.
2. Place scoops of sorbet and ice cream in 4 deep bowls or parfait glasses.
3. Top with a layer of sauce; repeat with another layer of sorbet and ice cream.
4. Top with remaining sauce, crumbs and ginger.


LOW SODIUM


LOW PROTEIN


REDUCES ACID

Chocolate Chip Cookies

Servings: 6 *Serving size: 1 cookie*

Recipe submitted by Emily Decker

NUTRITION INFORMATION
(per serving)

Calories 230
Fat 19.1 g
Carbohydrates 13 g
Protein 5 g
Dietary Fiber 2.8 g
Calcium 52 mg
Phosphorus 110 mg
Sodium 128 mg
Potassium 192 mg
Caffeine 6 mg

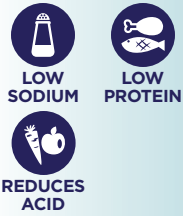
INGREDIENTS

1 cup blanched almond flour, sifted
Sprinkle of sea salt (¼ teaspoon or less to taste)
⅛ teaspoon baking soda
¼ teaspoon cinnamon
3 tablespoons melted coconut oil
2 tablespoons honey
1½ teaspoons vanilla
¼ cup (or more for extra chocolatey goodness) Enjoy Life Chocolate Chips or chopped dark chocolate (70-85 percent or higher)

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Combine almond flour, salt, baking soda and cinnamon in a large mixing bowl or stand mixer; mix thoroughly.
3. Combine liquid ingredients in a medium mixing bowl.
4. Slowly add liquid ingredients to the dry ingredients, mixing well until combined.
5. Stir in chocolate chips.
6. Spoon onto prepared baking sheet and bake for 10 to 11 minutes or until golden brown around the edges.

Strawberry Lime Dessert



Servings: 6 *Serving size: 1 glass or dish*

INGREDIENTS

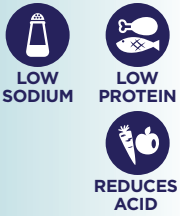
4 cups fresh strawberries, remove stems and quarter
½ cup whipping cream
1 tablespoon sugar
¼ teaspoon lime peel zest
1 lime, cut into 6 to 8 wedges

COOKING INSTRUCTIONS

1. In a shallow dish, mash 1 cup of the quartered strawberries with a potato masher, or puree with a mini food chopper, food processor or blender.
2. In a medium bowl, beat whipping cream, sugar and lime peel until cream is very stiff.
3. Fold in mashed strawberries.
4. In 6 individual 6- to 7-ounce glasses or dishes, layer whipped cream mixture and remaining strawberries.
5. Top with a fresh lime wedge. Serve immediately or cover and chill up to 2 hours before serving.

NUTRITION INFORMATION
(per serving)

Calories 90
Fat 6.4 g
Carbohydrates 9 g
Protein 1 g
Dietary Fiber 1.5 g
Calcium 26 mg
Phosphorus 30 mg
Sodium 8 mg
Potassium 136 mg



Light and Creamy Cranberry **Fresh Fruit Dip**

Servings: 12 *Serving size: 2 tablespoons*

INGREDIENTS

8 ounces light sour cream
½ cup whole-berry cranberry sauce
¼ teaspoon nutmeg
¼ teaspoon ground ginger

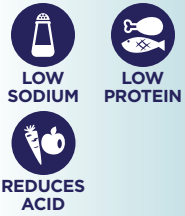
NUTRITION INFORMATION
(per serving)

Calories 45
Fat 1.2 g
Carbohydrates 7 g
Protein 1 g
Dietary Fiber 0.1 g
Calcium 25 mg
Phosphorus 25 mg
Sodium 21 mg
Potassium 47 mg

COOKING INSTRUCTIONS

1. Put all ingredients in a blender or food processor; blend until well mixed.
2. Serve with your favorite fresh fruit such as pineapple, pears and strawberries.

Blackberry **Cobbler**



Servings: 6 *Serving size: ⅙ of recipe*

INGREDIENTS

Vegetable oil cooking spray
1 12-ounce bag frozen unsweetened blackberries, thawed (or 3 half-pint containers of fresh blackberries)
¼ cup granulated sugar
1½ tablespoons cornstarch
1½ tablespoons water
⅔ cup firmly packed brown sugar
¾ cups quick oats
½ cup all-purpose flour
½ teaspoon ground cinnamon
½ cup unsalted butter, softened
1 8-ounce container light or reduced-fat whipped cream

NUTRITION INFORMATION
(per serving)

Calories 430
Fat 18.2 g
Carbohydrates 65 g
Protein 4 g
Dietary Fiber 3.4 g
Calcium 55 mg
Phosphorus 77 mg
Sodium 21 mg
Potassium 156 mg

COOKING INSTRUCTIONS

1. Heat oven to 350° F.
2. Lightly grease an 8-inch square baking dish.
3. In large saucepan, combine blackberries and sugar, let stand for 30 minutes.
4. Cook blackberries and sugar mixture, stirring frequently, over medium heat for 5 minutes.
5. In a small bowl, combine cornstarch and water until blended.
6. Stir cornstarch mixture into blackberry mixture.
7. Bring to boil over medium heat; boil for 1 minute or until mixture is thickened.
8. Spoon mixture into pan.
9. In a medium bowl, combine brown sugar, oats, flour and cinnamon.
10. Using a pastry blender or fork, cut in butter until mixture is crumbly. Sprinkle evenly over blackberry mixture.
11. Bake 30 to 40 minutes or until lightly browned and bubbly.
12. Serve with a dollop of whipped cream.

LOW SODIUM

LOW PROTEIN

REDUCES ACID

Coconut Angel Food **Cake**

Servings: 12 *Serving size: 1 slice and 3 tablespoons sauce*

INGREDIENTS

Cake:

¼ teaspoon salt
1 teaspoon cream of tartar
1 cup superfine sugar
2 teaspoons pure vanilla extract
2 teaspoons fresh lemon juice
1 cup sifted cake flour
⅓ cup dry, unsweetened, shredded coconut
⅓ cup fresh coconut shavings
1¼ cups egg whites (from about 9 large eggs), at room temperature

Sauce:

1 bag (12 ounces) cranberries, fresh or frozen and thawed
⅔ cup granulated sugar
1 tablespoon grated orange zest
⅔ cup fresh orange juice
2 tablespoons orange-flavored liqueur
½ teaspoon cinnamon

NUTRITION INFORMATION
(per serving)

Calories 215
Fat 2.4 g
Carbohydrates 44 g
Protein 4 g
Dietary Fiber 2.2 g
Calcium 10 mg
Phosphorus 27 mg
Sodium 94 mg
Potassium 167 mg

COOKING INSTRUCTIONS

Cake:

1. Heat oven to 325° F.
2. Beat egg whites and salt in a bowl with an electric mixer on medium until frothy, about 2 minutes.
3. Add cream of tartar. Beat until soft peaks form, about 5 minutes.
4. Increase speed to high. Add ½ cup sugar, 1 tablespoon at a time, until whites form soft, glossy peaks.
5. Beat in vanilla and lemon juice.
6. In another bowl, mix remaining ½ cup sugar with flour.
7. Sift ⅓ sugar/flour mixture over egg whites; gently, but thoroughly, fold into batter using a large spatula. Repeat twice with remaining sugar/flour mixture.
8. Fold in dry coconut in 2 batches.
9. Scrape batter into an ungreased 10-inch angel food tube pan with a removable bottom.
10. Smooth top into even layer.
11. Bake 35 minutes or until top is lightly browned and cake springs back when you press it.
12. Turn pan upside down and rest on the neck of a glass bottle to cool.
13. Run a knife against insides of pan to loosen cake; remove pan. Loosen cake from bottom of pan; invert onto a plate.
14. Cover with plastic wrap. Store at room temperature or in the refrigerator.

Sauce:

1. Boil all ingredients in a medium saucepan 1 minute, until lightly thickened.
2. Let cool.
3. Cover; refrigerate 1 hour.
4. Before serving, sprinkle top of cake with coconut shavings and cut into 12 slices. Serve slices with 3 tablespoons sauce.

Lemon Ricotta Pie

Servings: 8 *Serving size: 1 slice*

INGREDIENTS

3 large eggs, separated
15 ounces ricotta cheese (part-skim; whole can be used as well)
Juice and zest of 1 medium lemon
⅔ cup sugar substitute (Splenda)
½ teaspoon vanilla
Dash of salt

NUTRITION INFORMATION
(per serving)

Calories 105
Fat 6.2 g
Carbohydrates 4 g
Protein 8 g
Dietary Fiber 0.1 g
Calcium 156 mg
Phosphorus 130 mg
Sodium 127 mg
Potassium 98 mg

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Beat egg whites until soft peaks form.
3. Combine egg yolks, ricotta, lemon juice and zest, sugar substitute, vanilla and salt; stir to mix.
4. Test to make sure there is enough lemon flavor. If not, add more.
5. Fold egg whites into ricotta mixture and pour into greased pie pan.
6. Bake 25 minutes or until a toothpick in the middle comes out clean.
7. Refrigerate until completely cool.
8. Cut into 8 piece and serve with fresh berries or your favorite topping.

SERVING SUGGESTION

Serving with berries, or other fruit, makes this a great dessert!

Bread **Pudding**

Servings: 8 *Serving size: ⅛ of recipe*

INGREDIENTS

Vegetable oil cooking spray
8 slices of bread or 2 large bagels
1 cup liquid nondairy low-fat or reduced-fat creamer
½ cup liquid egg substitute
½ cup sugar
1 teaspoon cinnamon

NUTRITION INFORMATION
(per serving)

Calories 145
Fat 2.1 g
Carbohydrates 28 g
Protein 4 g
Dietary Fiber 1.0 g
Calcium 74 mg
Phosphorus 51 mg
Sodium 170 mg
Potassium 109 mg

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Spray a 1½-quart baking dish with cooking spray.
3. Break bread into small pieces and put in dish.
4. Mix creamer, egg substitute, sugar and cinnamon together and pour over bread.
5. Gently press with a fork so all the liquid is absorbed by the bread.
6. Bake for 30 minutes until brown on top.

LOW SODIUM

Bran **Muffin**

Servings: 12 *Serving size: 1 muffin*

INGREDIENTS

1 cup all-purpose flour
2 teaspoons baking powder
½ teaspoon cinnamon
2 cups 100 percent oat bran
1¼ cups low-fat milk
⅓ cup packed brown sugar
1 large egg
½ cup unsweetened applesauce

NUTRITION INFORMATION
(per serving)

Calories 120
Fat 1.9 g
Carbohydrates 27 g
Protein 5 g
Dietary Fiber 2.9 g
Calcium 96 mg
Phosphorus 175 mg
Sodium 100 mg
Potassium 159 mg

COOKING INSTRUCTIONS

1. Preheat oven to 400° F.
2. Spray muffin pan with cooking spray.
3. Mix bran, milk and sugar in another bowl and let stand 5 minutes.
4. Mix flour, baking powder, baking soda and cinnamon in a large bowl.
5. In the bowl with the bran, stir in egg and applesauce.
6. Add to flour mixture and stir until just moistened. Batter will be lumpy.
7. Spoon batter into muffin pan, filling each cup ⅔ full.
8. Bake for 18 to 20 minutes or until golden brown.

Dialysis-friendly option:

Individuals on dialysis should avoid this recipe and instead make Apple Muffins found on page 99 which is also suitable for those living with PKD.

Apple **Muffin**

Servings: 12 *Serving size: 1 muffin*

INGREDIENTS

2 eggs
1 cup Splenda (sugar also can be used)
½ cup canola oil
¼ cup water
1 tablespoon vanilla
1½ cups all-purpose white flour
1 teaspoon baking soda
1½ teaspoon cinnamon
1¾ cup raw apple, peeled and cut into small pieces (other low-potassium fruit also can be used)

NUTRITION INFORMATION
(per serving)

Calories 165
Fat 10.1 g
Carbohydrates 15 g
Protein 3 g
Dietary Fiber 0.9 g
Calcium 11 mg
Phosphorus 33 mg
Sodium 116 mg
Potassium 47 mg

COOKING INSTRUCTIONS

1. Preheat oven to 400° F.
2. Grease muffin pan or use 12 muffin liners.
3. Beat eggs in a large bowl. Add Splenda or sugar, oil and water; mix well.
4. Add vanilla.
5. In a separate bowl, combine flour, baking soda and 1 teaspoon cinnamon.
6. Stir flour mixture into egg mixture. Batter will be lumpy.
7. Fold in apple pieces.
8. Fill muffin cups three quarters full.
9. Mix remaining ½ teaspoon cinnamon with 1 teaspoon Splenda or sugar. Sprinkle on top of muffins.
10. Bake for 20 minutes or until lightly browned.

SERVING SUGGESTION

Pair with a glass of juice or fruit smoothie for breakfast, and you're off to a great start.

Key Lime **Pie**

Servings: 10 *Serving size: 1 slice*

INGREDIENTS

Crust:

1½ cups graham crackers, crushed
¼ cup sugar
5 tablespoons unsalted butter, melted

Filling:

1 can (14 ounces) nonfat, sweetened, condensed milk
½ cup fresh lime juice
1 tablespoon lime zest, minced
1 large egg
2 large eggs, yolks and whites separated
¼ teaspoon cream of tartar
2 cups low-calorie whipped cream (such as Cool Whip)
1 lime, thinly sliced (optional)

NUTRITION INFORMATION
(per serving)

Calories 260
Fat 8.1 g
Carbohydrates 42 g
Protein 6 g
Dietary Fiber 0.6 g
Calcium 137 mg
Phosphorus 151 mg
Sodium 153 mg
Potassium 228 mg

COOKING INSTRUCTIONS

1. Preheat oven to 325° F.
2. For crust: Mix graham cracker crumbs with sugar and butter. Spread evenly over bottom and sides of a nonstick 9-inch pie pan, and bake 5 minutes. Remove from oven; let cool.
3. For filling: In a medium bowl, using a fork, beat milk, lime juice and zest. Add 1 whole egg and 2 egg yolks (reserve whites) and beat well. Set aside.
4. In a large mixing bowl, beat egg whites until foamy. After about 20 seconds, add cream of tartar. Fold whites into custard mixture and pour into partially baked crust.
5. Bake 45 to 60 minutes or until set. Let cool.
6. Cut into 10 slices and serve with whipped cream. Garnish with lime slices, if desired.

Zesty **Lemon Tart**

LOW SODIUM

LOW PROTEIN

Servings: 1 *Serving size: 1 mini pie*

Recipe submitted by Pat Smithson

INGREDIENTS

Individual graham cracker pie crusts

2.8 ounces (one third of an 8-ounce carton) nonfat lemon yogurt

2 tablespoons light whipped cream

Lemon zest

NUTRITION INFORMATION
(per serving)

Calories 195
Fat 7.0 g
Carbohydrates 29 g
Protein 5 g
Dietary Fiber 0.7 g
Calcium 154 mg
Phosphorus 138 mg
Sodium 159 mg
Potassium 211 mg

COOKING INSTRUCTIONS

1. Fill pie crusts with yogurt, then light whipped cream.
2. Garnish with lemon zest.

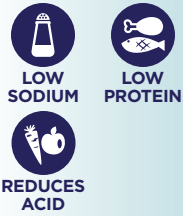
SERVING SUGGESTIONS

You can substitute any yogurt. Try key lime yogurt with lime zest or strawberry yogurt with fresh strawberries on top.

Spices, Spreads and Rubs

Homemade Salt-Free Mexican Spice Mix

Homemade Salt-Free **Mexican Spice Mix**



Servings: 8 *Serving size: 1 tablespoon*

INGREDIENTS

2 tablespoons chili powder
4½ teaspoons cumin
2½ teaspoons garlic powder
5 teaspoons paprika
3 teaspoons onion powder

NUTRITION INFORMATION
(per serving)

Calories 20
Fat 0.7 g
Carbohydrates 4 g
Protein 1 g
Dietary Fiber 1.5 g
Calcium 24 mg
Phosphorus 23 mg
Sodium 37 mg
Potassium 112 mg

COOKING INSTRUCTIONS

1. Mix all ingredients together and store in an airtight container.
2. Add a few tablespoons to chicken, lean ground beef or to add a Mexican flair to any dish.

NOTES

Try smoked paprika for a warm, smoky flavor.

Homemade **Mayonnaise**

Servings: 24 *Serving size: 1 tablespoon*

NUTRITION INFORMATION
(per serving)

Calories 105
Fat 11.5 g
Carbohydrates 0 g
Protein 0 g
Dietary Fiber 0 g
Calcium 1 mg
Phosphorus 4 mg
Sodium 27 mg
Potassium 4 mg

INGREDIENTS

1 large pasteurized egg at room temperature
1¼ cup olive oil, divided
½ teaspoon dry mustard
¼ teaspoon salt (or less, to taste)
A pinch or two of sugar, if desired
2 to 3 teaspoons fresh lemon juice (or white wine vinegar or a mix of the two)

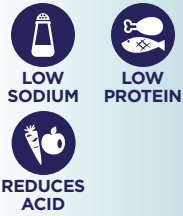
COOKING INSTRUCTIONS

1. Put egg, ¼ cup oil, dry mustard, salt and sugar (if desired) in blender, food processor or mixer. Mix thoroughly.
2. With mixer running, very slowly (this is key) drizzle in remaining oil, a few drops at a time, allowing the oil to be completely absorbed by the mixture before adding more.
3. After all of the oil is added and the mixture has emulsified (it will seem to thicken and get lighter), add lemon juice/vinegar, stirring with spoon to incorporate.
4. Chill for 1 to 2 hours and then serve. Mayonnaise will keep for about a week in the refrigerator.

NOTES

Because a raw egg is used, only use the freshest grade A or AA eggs with intact shells. Ideally, use shell eggs that have been pasteurized or otherwise treated to destroy salmonella.

Coffee-Ancho Chile **Rub**



Servings: 14 *Serving size: 1 tablespoon*

Recipe submitted by Geno Leage, PKD chapter volunteer

INGREDIENTS

¼ cup espresso coffee beans, finely ground
⅓ cup packed brown sugar
1 tablespoon paprika
1 tablespoon garlic, granulated
1 teaspoon dried oregano
1 teaspoon dry mustard
2 teaspoons salt
1 teaspoon black pepper
1 tablespoon ancho chile powder

NUTRITION INFORMATION
(per serving)

Calories 30
Fat 0.2 g
Carbohydrates 7 g
Protein 0 g
Dietary Fiber 0.6 g
Calcium 10 mg
Phosphorus 9 mg
Sodium 340 mg
Potassium 73 mg
Caffeine 27 mg

COOKING INSTRUCTIONS

1. Grind coffee beans to a fine consistency.
2. Remove from grinder and place in a small mixing bowl.
3. Place the rest of the ingredients into the bowl and mix well.
4. This can be stored in a baggy or an airtight container.

SERVING SUGGESTION

To be used with beef or lamb.

Simple Kebob **Marinade**

Servings: 8 *Serving size: 2 tablespoons*

INGREDIENTS

¼ cup low-sodium soy sauce
2 tablespoons fresh lemon juice
1 clove crushed garlic
2 tablespoons honey or agave
¾ cup olive oil

NUTRITION INFORMATION
(per serving)

Calories 200
Fat 20.3 g
Carbohydrates 5 g
Protein 1 g
Dietary Fiber 0.1 g
Calcium 3 mg
Phosphorus 10 mg
Sodium 266 mg
Potassium 23 mg

COOKING INSTRUCTIONS

1. Mix all ingredients together, adding oil last.
2. Marinate meat (chicken, pork, lean beef) or vegetables (onions, mushrooms, bell peppers, tomatoes, squash, cauliflower and more) overnight.
3. Grill or broil.

NOTES

Use 8 tablespoons of marinade for every 1 pound of meat. This recipe is enough for 2 pounds.

Roasted **Garlic**

LOW SODIUM
LOW PROTEIN
REDUCES ACID

Servings: 36 *Serving size: 1 clove*

INGREDIENTS

3 heads of garlic
water

COOKING INSTRUCTIONS

1. Preheat oven to 350° F.
2. Remove skin from garlic heads, leaving cloves intact.
3. Cut top off each head. Put heads in a small baking dish and add water to cover the bottom (about ¼ inch).
4. Cover with a lid or foil.
5. Bake for 60 minutes or until cloves are soft to the touch.

SERVING SUGGESTION

To eat, squeeze the large end of the clove until it pops out. Use as a spread on bread, substitute for mayonnaise on a sandwich, or as a topping for pizza or baked potato. Leftover cloves will keep in a sealed container in the refrigerator for about a week.

NUTRITION INFORMATION
(per serving)

Calories 5
Fat 0 g
Carbohydrates 1 g
Protein 0 g
Dietary Fiber 0.1 g
Calcium 5 mg
Phosphorus 5 mg
Sodium 1 mg
Potassium 12 mg

Basic **Chicken Stock**

Servings: 10 *Serving size: 1 cup*

Recipe submitted by Geno Leage, PKD chapter volunteer

NUTRITION INFORMATION
(per serving)

Calories 65
Fat 4 g
Carbohydrates 3 g
Protein 4 g
Dietary Fiber 0 g
Calcium 20 mg
Phosphorus 27 mg
Sodium 32 mg
Potassium 102 mg

Nutrient information may not be exact since transfer of nutrients from food to the stock is estimated.

INGREDIENTS

1 pound chicken bones, washed, roasted
3 tablespoons olive oil (divided)
1 yellow onion, peeled, coarsely chopped
2 carrots, peeled, coarsely chopped
2 stalks celery, washed, coarsely chopped
2 cloves garlic, peeled
2 bay leaves
1 tablespoon black peppercorns
2 ½ quarts water

COOKING INSTRUCTIONS

1. Preheat oven to 400° F.
2. Wash the chicken bones and place them in a bowl with 2 tablespoons olive oil to coat the bones.
3. Place the bones on a sheet tray or suitable roasting pan and place in the oven for 30 minutes or until golden brown.
4. Place a gallon-size stock pot on the stove top with 1 tablespoon olive oil and heat on high.
5. Add onion, carrots, celery, garlic, bay leaves and peppercorns to the stock pot and sauté for 10 minutes.
6. Add the bones and cover with water.
7. Bring to a boil and reduce heat to a simmer.
8. Simmer the stock for 45 minutes and then strain into a heat-resistant container.

SERVING SUGGESTION

When cooled, you can store the chicken stock for 1 week in the refrigerator or up to 6 months in the freezer.

Glossary of **Terms and Topics**

Animal-source protein: Chicken, pork, beef, fish, eggs and cheese/milk. This also includes less commonly eaten meats such as venison, boar, duck, goose, moose and bison.

ADPKD: Autosomal dominant polycystic kidney disease, one of the most common life-threatening genetic diseases, causes fluid-filled cysts to develop and enlarge in both kidneys.

ARPKD: Autosomal recessive polycystic kidney disease affects approximately 1 in 20,000 children and can cause death in the first month of life.

Caffeine: Caffeine has been shown to have the potential to accelerate cyst growth in ADPKD.[9] However, no formal recommendation has been made related to how much caffeine needs to be restricted or whether patients should avoid it. Recently, a study of 102 ADPKD patients showed no association between low intake of caffeine (average caffeine intake of 86 milligrams per day) with renal volume.[10] Because caffeine is known to promote the growth of cysts, it should be limited in individuals living with ADPKD. However, the consumption of a single cup of coffee (eight ounces equals 70 to 200 milligrams), two cups of tea (16 ounces equals 30 to 140 milligrams) or a soda (20 ounces equals 58 to 100 milligrams) daily may be acceptable. Decaf or caffeine-free versions of drinks are more appropriate. If possible, they should be selected instead of caffeinated beverages. Caffeine-containing supplements, energy shots and energy drinks should be avoided.

Calcium: Getting your recommended intake of calcium daily will help you maintain strong bones. Calcium can be found in most dairy products.

Dietary acid load: A measure of the amount of protein-to-potassium an individual eats. Eating too much protein and not enough potassium-rich foods will result in a high dietary acid load.

Dietary supplements, including Chinese herbs: Many individuals may take supplements in addition to their medications. **Supplements can potentially be dangerous. Unlike drugs, dietary supplements are treated like special foods and are not regulated by the same guidelines.** One key difference is that drugs are considered unsafe until proven safe through rigorous scientific trials, whereas dietary supplements are considered safe by default and must be proven unsafe. This means that no safety or efficacy trials are needed before marketing a supplement. Supplements may or may not contain the ingredients that are listed on the label. A 2013 study that sampled 44 herbal supplements found that only 48 percent contained any of the herbs listed on the label.[43] Of the ones that contained the herb, most had fillers or were contaminated with other products. Many supplements interact with medications that may reduce the drug's effectiveness or cause unknown side effects. Before taking a supplement, talk to your doctor about what you are considering. Fish oil, multivitamins and calcium supplements are often the only supplements prescribed by physicians, typically on an individual basis.

Dietitian versus nutritionist: Eating healthy is important for individuals with PKD, but when it comes to diet and nutrition counseling, from whom should you be getting your information? Many people hear the terms "dietitian" and "nutritionist" and think they are the same; however, there are some important differences. To clear up some of the confusion, the Academy of Nutrition and Dietetics, the world's largest organization of food and dietetics practitioners, has stated that **"all registered dietitians are nutritionists but not all nutritionists are registered dietitians."**[44] Unlike nutritionists, dietitians must adhere to strict education and training requirements set forth by a governing body, making them the only nutrition professionals regulated by law. This is why dietitians are the only nutrition experts legally able to provide medical nutrition therapy to patients.

To become a dietitian, individuals must obtain a certain set of qualifications:

- Complete a bachelor's degree at a university accredited or approved by the Accreditation Council for Education in Nutrition and Dietetics. Dietitians will require a master's degree as of 2024.
- Complete 1,200 hours of supervised practice in a variety of clinical, community and food-service rotations.
- Pass a national examination administered by the Commission on Dietetic Registration.
- Complete ongoing continuing professional education that is reviewed by the Commission on Dietetic Registration over the course of their entire career.

Dietitians will have either the registered dietitian (RD) or registered dietitian nutritionist (RDN) credential after their names. They both indicate the same credential and qualifications.

In most states, the term "nutritionist" isn't protected, meaning that no formal requirements exist to use the credential. This means that someone with no formal education, training or expertise in nutrition can call him or herself a nutritionist. A few states have started protecting the term "nutritionist" to avoid issues with patients getting advice from unqualified individuals; however, only a handful of states have been able to do so.

Just like doctors, dietitians often have a particular field of expertise, such as cancer, kidney disease or diabetes. When looking for a dietitian, it is better to find one who specializes in the particular condition that you have. With PKD, it is best if you can find a dietitian who specializes in nephrology; however, if you live in a rural area, this may not always be possible.

Your insurance may not cover seeing an RD or RDN about your dietary needs. Check with your insurance company first to see what services may be covered and the best route to get them covered. Even if services aren't covered, you should consider seeing an RD if you want to make dietary changes. He or she will help you figure out what is important to you and your health, determine how best to approach making these changes and set up a plan based on your medical needs and the most current evidence-based recommendations. The RD also

can help you follow through on the plan. Although you may have to pay out of pocket, changing your dietary behaviors may help you stay out of the hospital and save you money in future medical expenses, making it an investment in your long-term health.

When looking for advice on diet, check whether the individual has the RD or RDN credential after his or her name. These credentials indicate that the individual has completed the required education and training to give nutrition advice to patients. These are the only legally accepted credentials for health care professionals who specialize in nutrition. You can find an expert to help you with your diet by going to **eatright.org/find-an-expert** and searching by ZIP code and specialty.

HDL cholesterol: High-density lipoprotein cholesterol. Also known as the "good" cholesterol.

KDOQI guidelines: Kidney Disease Outcomes Quality Initiative guidelines are evidence-based clinical practice guidelines for all stages of chronic kidney disease.

nPCR level: The normalized protein catabolic rate level measures if you have enough protein in your diet; used in hemodialysis.

nPNA level: The normalized protein nitrogen appearance level measures if you have enough protein in your diet; used in peritoneal dialysis.

Nutritionist: An individual who advises on matters of food and diet. A nutritionist does not necessarily hold a professional credential or have formal training. See page 110 for more information.

Phosphorus: A mineral found naturally in many foods, primarily dairy products and meat. Phosphorus is also abundant in processed and packaged foods, since it acts as a preservative and can increase a food's shelf-life. The kidneys play an important role in keeping phosphorus levels in the blood in normal range. When kidney function declines, you may need to limit your intake of foods high in

phosphorus. Your physician may prescribe phosphorus binders to be taken with meals as well (see phosphorus binders).

Phosphorus binders: These help prevent phosphorus from the foods that you eat from being absorbed.

Potassium: May play an important role in protecting the kidneys by reducing your dietary acid load. It is an important nutrient for keeping your blood pressure in normal range. Potassium may need to be restricted as kidney function declines.

Registered Dietitian (RD): A food and nutrition expert who has met rigorous qualifying requirements. See page 110 for more information.

Registered Dietitian Nutritionist (RDN): See *Registered Dietitian*.

Serum phosphorus levels: A measurement of phosphorus in the blood.

Vasopressin: A naturally occurring hormone that functions to properly regulate fluid balance in our bodies. It helps to conserve water when we are dehydrated and excrete water when we have too much. High vasopressin levels, which occur when we don't get enough fluid, have been linked to many diseases, including high blood pressure, heart and kidney disease. High vasopressin levels have a particularly harmful effect in ADPKD.

Water loading: Water has gained significant interest as a therapy for individuals with PKD. Drinking water reduces levels of vasopressin, a hormone that stimulates cyst growth.[6] Vasopressin is stimulated during times of dehydration or after a high-sodium or high-protein meal.[7] Although drinking a large volume of water once or twice a day may lower your vasopressin levels in the short term for individuals living with PKD, **water should be consumed generously throughout the day to keep vasopressin levels consistently low.** For adults with ADPKD, a minimum of three liters (100 ounces) of water should be consumed daily.[5]

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