



# TAKING CARE OF YOUR KIDNEYS

## **CHAPTER 1:**

### **Taking Care of Your Kidneys (Adria Beaver, RN)**

Welcome to Kaiser Permanente's Online class "Taking Care of Your Kidneys". This program will explain why making certain lifestyle changes, as well as taking specific medications, and avoiding others, can slow down the damage to your kidneys that can lead to kidney failure. We will guide you in thinking about what you specifically can do, what resources might be helpful for you, and what actions you are ready to take.

Before we get started, just a few words about the online format of the class. The program is self-paced. What that means is that it can be completed in one sitting, which will take you about an hour and a half, or you may stop it at any time and return to it when you're ready. Also, depending on your needs, you may choose to view only certain sections or view them in a particular order.

The program is interactive. So even though you are not in the classroom with the instructor, there are many opportunities for you to get involved with the material. We encourage you to follow along closely, do some thinking, writing, and planning when asked. You can click on the pause button at any time during the program to think about what we've said or write something down. Please have paper and pencil handy and any lab results you have nearby. There is also a link to an Action Plan that we'd like you to print out. We'll be referring to it toward the end of the program. And keep track of your questions so that you will know what resources might be helpful for you to follow up with after this class.

### **Mubasher Rana, MD**

Hello, I am Dr. Mubasher Rana. I am a Nephrologist for Kaiser Permanente in Northern California. I have been working with people who have kidney disease for the last 17 years. I am also the Chief of Nephrology at the Kaiser Medical Centers in Walnut Creek and Antioch. I believe that this program will help you to feel more confident in taking care of your kidneys. I will be speaking with you first. We will talk about your kidneys and what CKD is. I also have with me, Anne Diggins, a Registered Nurse and Terri Franklin, a registered dietitian, who will be speaking with you as well.

This program was created for those people who would like to know more about Chronic Kidney Disease to help themselves and their families.

### **Our Time Together**

During our time together we will: Review the definition of Chronic Kidney Disease (or C-K-D) and how your kidneys work. Discuss how CKD and Heart Disease are related. Talk about treatment for CKD specifically what you can do. Share important resources, both within Kaiser Permanente and the community. And finally, and most importantly, do some planning. The steps that you decide to take next to take care of your kidneys.

One important note, for people over the age of 80, the way we diagnose CKD is different. Please talk to your physician to make sure the diagnosis of CKD applies to you before beginning this class.

## **CHAPTER 2: THE KIDNEYS**

### **The Kidneys**

Let's talk briefly about where your kidneys are and how they work. This picture shows the location of the kidneys in the body. You have two kidneys, one on each side of your body, just below your ribs at the back. Your kidneys are about the size of your fist. They are delicate organs and are placed well, protected by ribs, muscle, fat, and skin.

### **Anatomy of the Kidneys**

Here is a picture of the urinary system, the body's waste treatment plant. To stay healthy and do their job, the kidneys must have a constant flow of oxygen-rich blood. Blood gets in to the kidneys by way of the aorta and the renal arteries. The kidneys clean the blood of waste products and make urine. Urine travels from the kidneys to the bladder through the ureters. Urine leaves the body through the urethra. The renal veins return the cleaned blood to the rest of the body.

### **The Nephron**

Nephrons are the filtering units of the kidneys. Each kidney contains about a million Nephrons. It is the Nephrons that are damaged by diseases causing CKD. It is the Nephrons we want to protect so they keep working for a long time.

### **What the Kidneys Do**

What do your kidneys actually do for you? Let's think about this for a minute. We can keep our outside clean by washing, but we rely on our internal organs, such as the kidneys and liver, to keep our insides clean. Before I review the facts, consider all the things you think your kidneys do for you. The kidneys control the amount of water and salt in your body; they filter waste from your blood into the urine; they balance the levels of important minerals in your body, like potassium and phosphorus; they help control your blood pressure; and finally, they help your body make red blood cells.

## **CHAPTER 3: CHRONIC KIDNEY DISEASE IN COMMON**

### **Chronic Kidney Disease is Common**

Chronic kidney disease is actually fairly common. According to the most recent data, 1 out of 8 adult Americans has CKD. As we age, we will all eventually lose about 1/3 to 1/2 of our kidney function, but in CKD the loss of function is quicker and more severe. It also tends to run in families. If you have CKD, your immediate family members should talk to their physician about being tested too. It is important that you please encourage your family members to watch this video with you.

## **Chronic Kidney Disease (CKD)**

How does CKD progress and what does it feel like? How do you feel right now? If you have any feelings or symptoms that you have every day, take a moment to write them down so that you can refer to them throughout this class. When you have Chronic Kidney Disease, or CKD, your kidneys gradually stop filtering the wastes from your body the way they should. This waste builds up over time in your blood. Most people with mild to moderate CKD don't have any symptoms at all. In severe CKD symptoms may develop and can include tiredness, swelling, loss of appetite and nausea. Remember, you can slow the progression of CKD by following the recommendations in this class.

## **Causes of CKD**

The most common causes of CKD are Diabetes, High Blood Pressure, Inherited diseases like Polycystic Kidney Disease, and the use of some medications, like Motrin, Ibuprofen, Naprosyn and Aleve. We will talk more about these in a few minutes.

## **CKD and Lab Tests**

Both to diagnose and follow the progress of CKD, certain lab tests are commonly done. Have you had one or more of the lab tests listed on this slide? If you have, please take a moment to look at your lab results. Pause this video if you need to while you get them. We're going to review what is normal and what represents CKD.

Creatinine is a small protein that is filtered well by normal kidneys. When kidneys are healthy the level of Creatinine in the blood is low. For men, a normal Creatinine is less than 1.3. For women, normal is less than 1.2 a high Creatinine level shows a drop in kidney functions. If your kidney function is stable, your Creatinine levels are fairly steady; close to the same all the time. Our goal is to watch your Creatinine level over time, keep it stable, and try to slow down the rise. Another important test is Urine Microalbuminuria, or Urine Protein. Normal urine has very little, if any, protein. The last important lab value is The Glomerular Filtration Rate, or GFR, which is an estimate of the percentage of your remaining kidney function.

## **The Five Stages of GFR (Table)**

To help your physician care for you, the National Kidney Foundation has established a staging system for CKD. It consists of 5 stages:

- In Stage 1, the GFR is in normal range, which is 90 % or above, but there is some other marker of kidney disease, such as protein in the urine or an abnormality in the structure of the kidneys which may appear on x-ray or an ultrasound test.
- In Stage 2, the GFR begins to drop, and is from 60-89%. Remember in these stages, you can help keep your kidneys healthy by adopting a healthy lifestyle which includes: staying active, controlling high blood pressure and blood sugar, if you have diabetes, controlling your cholesterol and quitting tobacco.
- In stage 3, the GFR is 30-59%; please remember that most patients with CKD are in Stage 3. If you are in Stages 1, 2 & 3, there is still time to act. If you follow the healthy lifestyles I just described, and work with your Primary Care Physician, Clinical Pharmacist and Care Manager, you can actually delay the progression of Kidney Disease.
- In stage 4, the GFR is 15-29%, and your primary physician may ask you to see a kidney specialist like myself to monitor your condition. If and when you reach Stage 4, we may begin the discussion about dialysis or kidney transplant.
- In stage 5, the GFR is 14 or less. In this stage, you will need to begin dialysis or have a transplant to stay healthy.

## **CKD and Heart Disease**

Remember, heart disease is the leading cause of death among people who have CKD. You are at increased risk of developing heart disease in the early stages of CKD. The good news is that if you take care of your kidneys, you will also be taking care of your heart.

What can you do to help both your kidneys and heart stay healthier? Take a moment to write down what comes to you. In a minute we will compare notes and review what we know about how you can live healthier with CKD.

## **CHAPTER 4: CKD – WHAT YOU CAN DO**

**Anne Diggins, RN**

### **CKD - What You Can Do**

Hi I am Anne Diggins. I am a Certified Nephrology Nurse with many years experience of working with people who just like you, have CKD. I am pleased to be part of the team putting together this online course because I believe strongly that patients should take an active role in their health care. The best way to do that is to become knowledgeable in about your condition.

I applaud you for participating in this class to learn more about taking care of your kidneys and know that you will come away with some new ideas of what you can do. As Dr. Rana said, I also believe, that after you finish this online class, you will feel more confident, not only in taking care of yourself, but also in deciding what next steps are right for you.

I am going begin the discussion on things you can do to slow the progression of CKD. Later I will check in with you on your readiness to try something new, and help you start a plan for change that will work for you.

### **CKD - What You Can Do**

Dr. Rana asked you to jot down some ideas on how you can take care of your kidneys and your heart. What did you think of? Here is a list of things we know help slow the progression of CKD. As you can see they are common recommendations for leading a heart healthy life as well. Blood Pressure control, and if you have diabetes, blood sugar control are very important for managing CKD and keeping your heart healthy too. Monitoring blood pressure and blood sugar at home are important 1<sup>st</sup> steps that you can take in controlling your condition.

Always take your medications as prescribed. If you smoke, quit smoking. Stay away from second hand smoke too. And, be active. This not only helps keep your body healthy, but is also good for your mood and overall well being. Make healthy food choices. Finally, since the diseases that cause CKD can run in families, share this information with your whole family so they can take care of their kidneys too.

For the rest of this section we will be discussing each of these recommendations in more detail. As we go along, think about what you are already doing and what more you might do to take care of your kidneys. As I mentioned before, at the end of the class I will guide you through the process of planning any next steps you come up with.

Before we go further, I suggest you pause this video, and print the CKD Action Plan included with this program. Keep it close at hand to refer to as we go along.

### **Our Goals – The Numbers**

We have said before that Blood Pressure and Blood Sugar control are important in controlling CKD at all stages of the condition. The fact is that controlling your blood pressure is the most important thing you can do to help keep your kidneys healthy. Our BP goal for anyone with CKD is less than 130/80, and both numbers are important. We will talk more about blood pressure control in a minute.

If you have diabetes, blood sugar control is also very important, not only for your kidneys, but for your heart, eyes, nerves and blood vessels as well.

Hemoglobin A1C is the test we use to check your diabetes control over time. Because of the link between CKD and heart disease, controlling Cholesterol is important, as well. Make sure you get your cholesterol checked regularly. Our cholesterol goals are: an LDL, also known as bad cholesterol, less than 100, and an HDL (or good cholesterol) more than 45. Work with your physician to achieve and maintain these cholesterol goals. They can be achieved through a combination of healthy eating, exercise and, if necessary, medication.

### **Controlling Blood Pressure**

So, what can you do to control your blood pressure? Here's some things we came up with: Take your medications as prescribed. Check your blood pressure at home and keep a record to share with your doctor at office visits. Cut salty foods out of your diet and don't add salt in cooking, or at the table. Get moving; try to get 30 minutes of aerobic exercise on most days of the week.

### **Controlling Blood Pressure**

Lose weight if you are overweight. Often losing just 10% of your weight can make a big difference in your blood pressure and blood sugar control. It can also make you feel good about yourself and increase your sense of well-being. Limit fat intake, especially saturated fats. If you drink alcohol, limit your intake to no more than 1 ounce a day. Don't smoke or use any kind of tobacco. Medications are very important, but are just part of treating high blood pressure. Everything on this list is important in helping you get control of your blood pressure.

### **Blood Sugar Control**

If you have diabetes, how is your blood sugar control? If your Hemoglobin A1C is above 7%, here are some recommendations to get it under control. Check your blood sugar regularly at home. If your blood sugar is above your goal, talk to your doctor, diabetic educator, or dietitian. You may need to change the foods you eat, reduce the portion sizes, or exercise more to reduce the sugar load in your body. Get educated, attend a class offered at Kaiser Permanente, call or visit your local Health Education Center for more information.

## **CHAPTER 5: CKD – MEDICATIONS**

### **CKD - The Medications**

We have mentioned Medications as a way to control your blood pressure and blood sugar. If you are prescribed medications, taking them as directed by your doctor is one of the most important things you can do to take care of your kidneys. That means taking the right medications, at the right times, and in the right way. Don't stop taking a medication without consulting with your doctor first. If you are experiencing side effects that you don't like, let your doctor know right away. He or she may be able to change the medication or the dosage, or change the time of day that you take them to help prevent the side effects.

In this section, we are going to cover: medications that help protect your kidneys and your heart; medications that are not safe to take because they may damage your kidneys; medications that are safe to take if you have CKD. We will also discuss vitamins, herbs and supplements. We will touch on anemia and drugs that are used to treat this condition which is commonly associated later stages of CKD.

### **Medications That Protect Your Kidneys and Lower the Risk of Heart Attack**

Here is a list of medications that can protect your kidneys and lower your risk for heart attack or stroke:

- **Ace Inhibitors**, such as Lisinopril, and Angiotensin Receptor Blockers such as Cozaar, lower blood pressure, improve heart rate, and protect your kidneys, slowing the progression of CKD.
- **Statins**, such as Lovastatin or Mevacor, and Simvastatin or Zocor, lower cholesterol and decrease swelling in blood vessels. These medications can help decrease the chance of heart attack.
- **Aspirin and Clopidogrel** or Plavix, are anticoagulants or “blood thinners”. They lower the chances of blood clots, that could cause a heart attack or stroke
- **Beta blockers**, like atenolol or loproressor, slow the heart so it pumps blood more easily. They also lower blood pressure which is good for your kidneys.
- **Diuretics**, like HCTZ, or Lasix help the kidneys get rid of extra fluid and lower blood pressure, too.
- **Diabetes medications** – control high blood sugar, and its damaging effects on blood vessels in the kidneys, the heart and throughout the body.

### **CKD's Effect on Medications**

CKD can effect the medications you are taking. The kidneys act as a filter for many of the medications you take. When you have CKD, your kidneys may not be able to filter out some medicines as well as they normally would. Because of this, the dose of certain medications may need to be lowered to prevent too much of the medication from building up in your bloodstream. An example of this is Diabetes medications in later stages of CKD: As kidney function declines blood sugar levels may start dropping too. This is because the kidneys become less effective in removing the insulin from the body, so it stays around longer. If this happens to you, you should talk with your doctor, you may need to eat more food, or reduce your dose of insulin or other diabetic medication.

Help yourself and your doctor by bringing an up-to-date list of your medications to all of your doctor's appointments. Be sure to include any over the counter medications, vitamins and supplements you take, as well as your prescription medications. Remind your doctor, dentist and pharmacist that you have CKD whenever they prescribe new medications for you. And since

some medications are safe at some stages of CKD, and not in others, it's always a good idea to know your GFR when talking with your health care provider.

### **Medications Which Are Not Safe**

When you have CKD you should not take Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) because they will harm your kidneys and make your CKD worse. Here is a list of some common NSAIDs. You should never take Motrin, Ibuprofen or Aleve or any of the other medications on this list. Aspirin and Excederin, which contains aspirin, should not be taken at the dosage needed for pain relief. However, at low doses, as prescribed by your doctor, aspirin can be important for decreasing your risk of a heart attack or stroke. If you have questions about the safety of a medication read the label, ask a pharmacist, or talk with your health care provider.

### **CKD and Vitamins, Herbs, and Supplements**

Even over-the-counter medications, like vitamins, herbs and supplements, can harm your kidneys. Before you start taking any vitamins, herbs, or supplements, talk with your doctor, or pharmacist to see if it's safe for you.

### **Safe Medications**

Here is a list of medications that are safe for most people with CKD to take when they are sick or have pain. Tylenol or Acetaminophen, is generally the best choice for fever, aches or pain. Unless you have liver disease, it is safe to take up to 6 extra strength Tylenol a day.

Take stool softeners or a fiber laxative such as Metamucil for constipation or gas. Avoid using laxative products that have magnesium or aluminum in them. Use Zantac or Pepcid, instead of other OTC antacids for heart burn. Avoid products that contain aluminum. Use calcium based products like Tums or Rolaids only with your physician's approval.

Antihistamines, such as Benadryl, are usually safe to take for allergy and cold symptoms. Avoid oral decongestants such as Sudafed because they can make your blood pressure go up. As I have said before, when you have CKD, you should check with your doctor or pharmacist before taking any new medication.

### **CKD's Effect on Mineral Balance**

The kidneys filter minerals from the body and keep it in balance. Two important minerals that are filtered and balanced by the kidneys are phosphorus and potassium. As kidney function declines, your kidneys may have trouble removing these minerals, and your blood levels may go up. If your levels of phosphorus or potassium rise too much you may need to decrease your dietary intake of these minerals. Again, whether or not you need to make changes in the amount you eat depends on your level of kidney function and blood levels as shown on your lab results.

Take a moment and pause the video to take a look at your own lab values for phosphorus and potassium.

Our dietitian will talk more about balancing the minerals in the section about foods and CKD.

### **CKD and Anemia**

Anemia means you don't have enough red blood cells to carry oxygen throughout the body. As Dr. Rana mentioned at the beginning of this class, the kidneys make a hormone called Erythropoietin which plays an important role in making red blood cells. As kidney function declines in CKD, the production of this hormone may also decrease and you may become

anemic. To correct anemia, your physician may prescribe an Iron supplement, Erythropoietin injections, if your Hemoglobin drops under 11 grams.

## **CHAPTER 6: WHAT YOU CAN DO TO STAY HEALTHY**

### **Regular Immunizations**

When your kidneys don't work as well as they should you may have less resistance to disease. One way to help you stay healthier is to keep your immunizations up to date. Here is a list of common immunizations you should get to help keep you healthy.

- Every Year: Flu Shot
- Every 5 years: Pneumonia vaccine
- Every 10 years: Tetanus Shot
- Hepatitis B vaccine series

### **Quitting Smoking**

Quitting smoking, or the use of any other form of tobacco, is critical to improving your health, decreasing your risk of heart disease, and protecting your kidneys. Smoking cause's heart disease and lung disease, we all know that. You might not know that smoking also damages the tiny blood vessels in your kidneys, and will make your CKD worse.

### **Quitting Smoking**

Stopping tobacco use is one of the most important things you can do to improve your health, decrease your risk of heart disease, and help your kidneys.

### **You Can Quit Smoking**

Here is a list of resources to help you stop tobacco. Contact your Kaiser Permanente Health Education Center, there are health education programs that can help you kick the habit. Your Doctor can prescribe smoking cessation medications that can also help you quit. Visit the Web sites listed here to learn more about quit smoking programs available to you both at Kaiser and elsewhere. Call the California Smoker's Helpline or the American Lung Association.

### **CKD Physical Activity**

Physical Activity is important in keeping you fit, maintaining your weight, and controlling blood pressure and blood sugar. Regular physical activity will also help you protect your kidneys. Try to get 30 minutes of aerobic exercise on most days of the week. Exercise is anything that gets your heart rate up, for example: walking, biking, swimming, gardening or even cleaning house are good exercises. For those who can't move around as easily, try water aerobics or chair dancing. Check your local KP Health Education Center for chair dancing videos, and remember, exercise can be broken into 10 or 15 minute segments and still be effective.

### **Make Your Wishes Known**

It is a good idea for everyone to have an advance directive. Advance directives are instructions to your physician, other health care professionals, and your family members about what kind of care you want if you become unable to speak for yourself. If you have not already done so, how about preparing an advance directive now? You can pick up a booklet in any Kaiser Permanente Health Education Center or connect to our Web site at [members.kp.org](http://members.kp.org).

# **CHAPTER 7: MAKE HEALTHY FOOD CHOICES: Part 1**

**Terri Franklin, RD**

## **CKD Make Healthy Food Choices**

Hello, I am Terri Franklin, I have been a Registered Dietician for over 20 years and I have been teaching the nutrition section for over 5 years. We're going to discuss the general nutritional guidelines when living with CKD. You can protect your kidneys and thus slow the progression of CKD by following these guidelines. After participating in this class you will not only be more aware of these guidelines, but also have a sense of how to follow any one of them by creating a plan that is right for you.

If you have CKD and are above the age of 80, some of these recommendations may not apply to you. You may want to ask your physician for a referral to a dietitian.

## **Healthy Eating for Healthy Kidneys**

Here are some general nutritional guidelines when you have CKD. We'll get into more detail about each one as we continue our discussion. Most of this information is being given to you so that you will have this information to make good decisions in the future. Most people with CKD won't need to make major changes in their eating habits until they are in a more advanced stage.

- **Sodium (salt):** Eat less sodium. CKD prevents your body from filtering out extra sodium.
- **Protein:** Eat less protein overall; and eat mostly high quality protein.
- **Phosphorus:** limit your intake of non nutritious phosphorous sources to protect your bone health.
- **Potassium:** You should not have to change the amount of potassium you eat unless your health care professional is concerned. Some medications can affect your potassium level.
- **Fluids:** Drink if you are thirsty. If you have swelling or puffiness, you may need to limit the amount of fluid you drink.

These are the five general nutritional guidelines. Which ones are you currently following? Which ones would you like to know more about? Let's get into the details on each.

## **Sodium**

Limiting the sodium, or salt, you eat is one of the most important things you can do with your diet to slow kidney disease. Too much sodium in the food you eat can raise your blood pressure and cause your body to hold on to water. Limit the sodium in the foods you eat to less than 2,500 mg a day, and as low as 2,000 mg a day would be even better. One teaspoon of salt has 2,400 mg sodium. The average American eats 6,000 to 10,000 mg a day.

## **Avoid the SODIUM Zone!**

Processed foods are very high in sodium and it's not just the salt that makes them so, it's the preservatives and additives, such as sodium nitrates and sodium citrates. When you are eating out, ask that your foods be prepared without salt.

## **Sodium – Make the Right Choices**

Foods labeled ‘low sodium’ means the product has less than 140 mg of sodium in one serving. Foods labeled ‘lite’ can have a lot of sodium. Also one tablespoon of ‘lite soy sauce’ has 500 mg

of sodium. In general, if a food has 500mg or more of sodium per serving, that’s considered a high sodium food.

## **Sodium – Flavor without Salt**

Here’s some low sodium flavoring to use instead of salt. Try lemon, a dash of vinegar, onion or garlic, a bit of pepper and use herbs and spices freely. Also try mixing one-half soy sauce with one-half water or rice vinegar. That same idea take a regular can of tomato sauce and mix it with the low sodium tomato sauce.

Take some time to think of what you can do to lower the sodium in the foods you eat often. You might pause the class here to take some notes.

## **Sodium – Avoid Salt Substitutes**

Don’t use salt substitutes like these. They are made with potassium. You’ll learn more about potassium in just a few minutes.

## **Protein and Healthy Kidneys**

The American diet is much higher in protein than our bodies need to stay healthy. That added protein load and the waste products from protein can be hard on the kidneys. This is a picture of some high quality protein foods.

## **Protein Recommendations (table)**

How much protein you need is based on whether you are a man or a woman, and on how tall you are. Here is a chart that gives you some guidelines about how much protein you should eat in one day. What is your height? Take a look at the chart to see the daily amount of protein recommended for you. What did you find out? Are you currently eating about the right amount or are you eating this much in just one meal? It’s best if you can split this total daily amount over your 3 meals a day or 2 meals, so that your kidneys don’t have to deal with all the protein at once. For example, if 5 oz a day is what is recommended for you, you could break it up into 2 oz at lunch & 3 oz at dinner; or 1 oz at breakfast, 2 oz at lunch & 2 oz at dinner, for a total of 5 oz of protein for the day.

## **Protein – Get the Right Amount**

Here are the amounts for 1 serving of protein. One oz of meat or cheese; ½ cup of dry beans or tofu; 2 tablespoons of nut butters; ¼ cup of cottage cheese, salmon or tuna. If you’re not sure about portion sizes, you may want to measure and weigh your foods, especially at first. Buy a food scale or ask your butcher or deli to cut your meats and cheeses into 1 – 2 or 3 oz portions. Three oz of protein is about the size of a deck of cards, and 2 tablespoons is about the size of a walnut.

## **Tips to Stretch Your Dietary Protein**

Here are some tips to stretch your protein: use thinly sliced meat, in sandwiches; make vegetables and grains the “main dish”, such as stir-fry. In soups and casseroles, replace some of the meat with rice or pasta; when adding cheese, substitute a smaller amount of a stronger tasting cheese for less protein and more flavor.

## **CHAPTER 8: MAKE HEALTHY FOOD CHOICES: Part 2**

### **Phosphorus – Critical to Bone Health**

Phosphorus and Calcium are critical to bone health. Most of us know about Calcium, but how many of you have heard much about phosphorus? Well, when phosphorus and calcium are combined in the body in the right balance, bones and teeth stay strong. When you have CKD, sometimes the balance of these minerals can be upset. If the phosphorus goes up, calcium must also go up and ends up being pulled from the bones.

### **Phosphorus – Critical to Bone Health**

The goal for your blood Phosphorus is less than 4.5. If you have your lab results with you, take a look to see the amount of phosphorous you have in your blood. Is it less than 4.5? If the balance of phosphorus is upset, it can lead to weakened bones, osteoporosis, and calcium deposits in your arteries.

### **Foods high in Phosphorus:**

Here is a list of foods that are high in Phosphorus. All people with kidney disease should limit their non-nutritious intake of Phosphorus. That means avoiding colas, Dr. Pepper (diet or regular), beer, chocolate, and any thing from boxed mixes, such as cake mixes or biscuit mixes. If, however, your phosphorus is within the normal range, you may have up to 8 ounces of dairy a day. If your phosphorus level is above 4.5 you should limit your dairy to no more than 4 ounces each day. Dairy includes milk, ice cream, cottage cheese & yogurt.

### **Phosphorus – Explore Alternatives**

Here are some alternatives for some of the high phosphorus foods. Non-dairy products such as rice milk, non-dairy creamers such as Mocha Mix or PolyRich, frozen desserts made from Rice Milk or Mocha Mix and non-cola soft drinks and root beer (diet or regular).

### **Potassium – The Facts**

Do you know what your potassium level is? Again, if you have your labs results with you, see how much potassium you have in your blood. Potassium in the food you eat is healthy for most people. If they eat more potassium than the body needs, the kidneys will get rid of the extra. However, in CKD, diseased kidneys may not clear Potassium efficiently and your potassium level could go high. If the Potassium goes too high, it can affect nerve and muscle function, including the heart muscle. This can sometimes lead to heart beat irregularities or heart failure.

### **Potassium – The Effect of Medication**

Some medications can raise potassium levels, some medications can lower potassium. Are you taking any of these medications?

- ACE Inhibitors (Lisinopril)
- ARBs (Cozaar)
- Diuretics (water pills)

### **Potassium – Foods That Are High**

Here is a list of foods that are high in Potassium. If you're asked to take in more or less potassium, this is the chart you can use. Remember the salt substitutes use Potassium, instead of sodium, so they would be included in the high Potassium foods. A half a cup is considered to be the average portion size for most of these foods.

## **Potassium – Better Choices**

Here are some foods that are lower in potassium. Take a look at both of these charts. Are most the foods that you get in the high Potassium group? Maybe consider including some low Potassium foods in your diet.

## **Fluids – Drink the Right Amount for You**

How much fluid is right for you is a question for your physician, especially if you have problems with puffiness or swelling of your ankles or hands. A normal amount of liquid to drink is about 6 cups, 48 ounces, a day. People with CKD should generally not “force” fluids. Just drink to thirst.

## **Fluids – They’re not just Water**

Fluids include any food that is liquid at room temperature, such as tea, coffee, soda, milk, or juice; also any foods that melts to a liquid such as Jell-O, ice cream or sherbet. Limit the sodium you eat to decrease thirst and prevent swelling.

## **Healthy Kidneys and a Healthy Weight**

Several of the food recommendations we have discussed are specifically for people with CKD. However, many of them are what we recommend even for people who do not have CKD. Healthy eating in general is great for everyone and usually leads to a healthy body weight. Too much weight can affect kidney function, raise blood pressure, raise blood sugar and cholesterol levels. Often, simple changes in portion sizes may be enough. The plate method shown here is suggesting filling half your plate with vegetables,  $\frac{1}{4}$  with a starch and  $\frac{1}{4}$  of your plate with protein. Remember that 3 oz of protein is the size of a deck of cards. It also is about the size  $\frac{1}{4}$  of your plate.

Losing weight and keeping it off involves following healthy eating habits and engaging in regular physical activity. You are more likely to keep off weight that you lose gradually rather than weight lost quickly. Even a small weight of loss, up to 10% can make a big difference. If you would like to lose weight, when you're ready, call your local Health Education center to find out about available classes and programs. Kaiser Permanente has lots of ways to help you reach your weight goal.

## **Healthy Eating for Healthy Kidneys**

In conclusion, the key nutritional recommendations are to: limit sodium to 2500mg a day; protein to 3-5 oz of high quality protein (depending how tall you are); for phosphorus, take in less non-nutritious sources like colas, beer & chocolate; for potassium, check the lists of foods that are high and low in potassium, if your doctor recommends that you change how much you eat; and fluids about 6 cups a day is ideal for most people.

Keep this information to use as a guideline for nutritional changes that might be needed in the future. Again, check with your local Health Education Department for other information you might need to live well and thrive.

# **CHAPTER 9: CKD – ACTION PLAN**

**Anne Diggins, RN**

Let's take a look again at the things you can do to take care of your kidneys.

## **CKD - What You Can Do**

Here are the six areas that we have emphasized in this class. Which of these, if any, are you currently doing? Is there an area you would like to know more about? Is there an area in which you would like to do more than you currently doing? For instance: If you are a smoker, are you thinking about quitting? Have you been meaning to monitor your blood pressure at home? Do you need to exercise more?

## **Taking Care of Your Kidneys – Action Plan**

Here is a portion of the action plan for CKD. This is a worksheet for you, designed to help you think about what you would like to do. Earlier in this class we asked you to print this. If you have not printed it already, please do so now. You can print one out from the Web site where you found this class video.

On this chart, are the action items that we have discussed in this class. These are what we call options, and it is your choice which one you would like to try, if any at all. The blank circle is for you to write in something you would like to do that we have not already listed. You may decide that right now you would simply like to learn more by reading or talking to others.

Take a minute now to consider your options and choose one that is of interest to you.

Now that you may have made a choice, think about what exactly it is that you might do. For example, if you chose Make Healthy Food Choices, what specific action are you going to try? Maybe, eat less protein. If you chose, exercise, maybe you are going to try to walk in the mornings before work every day. Once you have a specific action in mind, ask yourself “How ready am I to do this?”

## **Action Plan – Ready to Make a Change**

On this 0-10 scale, 0 is not ready at all, and 10 is very ready. Choose the number that best fits how you are feeling right now. Keep in mind, there is no right answer. The important thing is that you are aware of how ready you’re feeling about this action step. You can view the following slides according to what number you chose.

## **Action Plan - Not Ready**

Did you choose a number between 0 and 3? If so, think about why you picked that number. It seems that you are not really ready to do the action you chose. Ask yourself the following questions, what might need to be different for me to consider making a change in the future? Is there something different I feel ready to try right now?

Take a moment now to make some notes to yourself. If you determine what needs to be different, consider creating an action plan around that item. Or if you feel more ready to try one of the other options, try assessing your readiness on that option instead. Finally, if you are just not feeling ready to try anything at the moment, that is OK. It is alright to think about this another time or consider what resources might be able to help you become ready to make a change.

## **Action Plan - Not Sure**

Did you choose a number between 4 and 6? If so, think about why you picked that number. It seems that you are not sure right now about this action item. You are feeling somewhat ready but not completely. Ask yourself the following question, what are the pros and cons of making

this change? I encourage you to make a list of the pros and cons. This exercise can be helpful in determining why you are feeling unsure and what you might need to do to feel more ready. Or, you might decide to choose something you feel more ready to do right now.

Take a moment now to consider the pros and cons. If you find that doing this helps you to feel more ready, then proceed to the goal setting portion of the action plan. If you are still unsure, that is OK. It is alright to think about this another time. You might also think about whether other resources might help you in your decision.

### **Action Plan - Ready**

Did you choose a number between 7 and 10? Congratulations...It appears that you are feeling ready to take action. If so, think about why you picked that number. Ask yourself the following question, what is my goal? If you are ready to do something, it is important for you to create a goal with a plan that will work for you. When creating a plan, be sure to ask yourself how confident you feel that you can follow through with the plan. If you are not so confident, you might revise the plan so that you feel more confident about being able to accomplish it.

The next slide is a guide for creating your plan.

### **Action Plan: What Are Your Goals?**

If you chose a 7-10 on the readiness scale, write down your goal including the steps to success. This is an example of a plan to keep a blood pressure log. If your plan is to learn more, the following slide will covers many of the resources within Kaiser and the community available to you. Another important part to think about is how are you going to reward yourself for all your hard work? Rent a favorite movie? Get a massage? It's up to you!

Take a few minutes now to complete this portion of your action plan. Remember to consider how confident you are that you can accomplish your plan, and revise it if needed. You might break it into smaller steps or start with doing it less often. If you create a plan that you are confident you can complete, you are more likely to be successful. And success leads to more success. Congratulations, you're on your way to achieving your goals!

## **CHAPTER 10: CKD – YOUR NEXT STEPS**

### **Mubasher Rana, MD**

We've talked about what CKD is and the link between Heart Disease and CKD. We've covered the key things that you can do to take care of your kidneys which will slow the progression of CKD and ultimately lead to a healthier life.

You might be thinking now, where do I begin if I would like to know more or do more? At the beginning of this class we mentioned that we would guide you through the process of planning your next step. It is important for you to think carefully about what that might be. If you feel ready to do something, you will be more likely to do it and be successful. Once you accomplish your goal, you will be more likely to try something else.

Let's take a look again, and in more detail, at the things you can do to take care of your kidneys

## **Controlling CKD Saves Lives**

Before dialysis or kidney transplant is needed, chronic kidney disease more often leads to heart disease, so controlling the risk factors for heart disease is important. Control your blood pressure and blood sugar (if you have diabetes). Control your cholesterol. Take your medications as prescribed by your physician. Get regular exercise and quit tobacco use. Eat a heart healthy diet low in saturated fat, Trans fats and cholesterol. Maintain a healthy weight. Last but not least, it is important to share this information with your family, because they may be at risk as well.

## **Taking Care of Your Kidneys – Next Steps**

Now that we're at the end of this class, if you have questions about any of this information, be sure to ask your physician. You can use the Kaiser Permanente Web site anytime to e-mail your physician. You can also call the Advice Center or make an appointment directly with your physician.

Work on your Action Plan, if you created one today. Remember, you can use our worksheet to create one in the future as well. Print it and other related tip sheets and resources mentioned in this class.

It's important to keep your doctor's appointments and get the lab tests that your physician requests to keep track of your CKD.

Bring your Action Plan with you and discuss it with your physician or other health professional taking care of you.

In closing, thank you for viewing and participating in this online class. We are pleased that you took advantage of this Kaiser Permanente program to learn more about CKD and what you can do to take care of your kidneys.

I am confident that if you are ready to either try something new, work harder at something you are already doing, or just learn more for now, you will find a way to do it and make it work for you.

## **For More Information on Managing CKD**

Go to your Physicians Home Page at [www.kp.org/mydoctor](http://www.kp.org/mydoctor) to:

- Research health and drug information
- Fine interactive tools
- Order refill prescriptions
- Schedule routine appointments and view lab results
- Email your physician

Contact your Kaiser Health Education Center for health information, programs to the resources.

## **More Information about CKD**

Other websites:

- National Kidney Foundation - [www.kidney.org](http://www.kidney.org) - 1-800-622-9010
- National Kidney Disease Education Program - [www.nkdep.nih.gov](http://www.nkdep.nih.gov)
- The DaVita Online Network – [www.DaVita.com](http://www.DaVita.com)