

**In the Know, Inc. Inservice Club
presents
A Disease Process Module:
Understanding Kidney Disease**

We hope you enjoy this Inservice, prepared especially for nursing assistants like you. You work very hard, and we appreciate the effort you make to complete these educational materials. It shows your desire to continue learning and growing in your profession.

After finishing this inservice, you will be able to:

- Describe at least three different types of kidney problems.
- Discuss who is at risk for kidney problems.
- List at least six symptoms of kidney disease.
- Describe at least two complications of kidney disease.
- Discuss the components of a renal diet.
- Demonstrate at least six ways you can help clients with kidney disease go about their daily lives.



Instructions for the Learner

If you are studying the inservice on your own, please:

- Read through all the attached materials. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.
- If you have questions about anything you read, please ask _____.
- Take the quiz. Think about each statement and circle the best answer.
- Check with your supervisor for the right answers. You pass the quiz with at least eight correct answers! Print your name, write in the date, and then sign your name.
- Keep the inservice information for yourself, and turn in the quiz page to _____ no later than _____.
- Show your Inservice Club Membership Card to _____ so that it can be initialed.



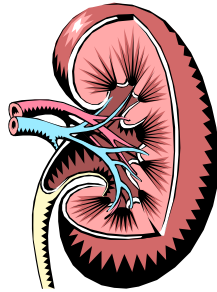
THANK YOU!

In the Know

The Inservice Club for Nursing Assistants

Understanding Kidney Disease!

For centuries, doctors wondered about the kidneys and how they work. Physicians in ancient Rome thought that the kidney was a big “sieve” which filtered waste from the body. They weren’t that far off, but uncovering the real mysteries of kidney function had to wait until the invention of the microscope.



As early as 1659, kidney tissue was studied through a microscope. Early scientists were able to see the kidney’s tiny tubes and blood vessels—but they really didn’t know how they worked! Finally, in 1842, doctors were able to solve the puzzle of how kidneys actually function.

So, how do healthy kidneys work?

The kidneys are complicated “trash collectors.” They sift out the “trash” that collects in our blood from the food we eat and from the normal breakdown of muscles. The kidneys sort through this waste, looking for things the body can use—like *sodium, potassium, sugar and phosphorous*. Everything else is sent to the bladder to be gotten rid of in the urine.

If renal (*kidney*) function is:

- **100%...the kidneys are healthy.** In fact, 100% renal function is more than people really need!
- **50%...the kidneys may still work o.k.,** but they may have a disease that will get worse over time.
- **20% or less...the kidneys are in trouble** and will probably cause some serious health problems.
- **15% or less...the kidneys have failed** and need treatment.

The kidneys are also responsible for releasing *three* important hormones. These hormones assist the body by:

1. Helping to make red blood cells.
2. Regulating blood pressure.
3. Maintaining calcium for the bones.

It’s very important for your body to have the right balance of these three hormones.

What happens when the kidneys don’t work well?

Sometimes the kidneys aren’t able to filter out waste products. When this happens, the waste builds up in the blood and damages the body. This is called kidney disease. Keep reading to learn more about kidney problems and how they affect your clients.

Inside this inservice

Facts about the Kidneys	2
Types of Kidney Problems	4
Symptoms and Side Effects	5
More about Kidney Stones	7
Kidney Disease Question & Answer	8
Renal Diets and Eating Right	9-10
A Few More Tips	11



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A Few Terms To Know . . .



- **Kidneys**—The body has two of these organs. They act like filters, getting rid of extra water and wastes. This waste is called *urine*.

- **Ureters**—The kidneys constantly send urine to the bladder through two ureters. Ureters are thin tubes about 9 inches long. They are connected to both the kidneys and the bladder.

- **Nephrons**—These are the tiny units inside the kidneys that do the actual filtering.



- **Bladder**—A hollow muscle that is like an “elastic” storage tank for urine.

- **Kidney Stone**— A small, hard “stone-like mass” formed from crystals. These crystals come from urine and build up on the inner surfaces of the kidney.

Facts About The Kidneys

- The kidneys are “bean-shaped” organs about the size of your fist. They are located in the middle of the back right behind the lower ribs.
- The kidneys are very small—about 4 inches long and up to 3 inches wide. A kidney weighs about 5 ounces and is a deep red color.
- Each kidney contains more than 1 billion “mini-filters” called *nephrons*.
- Over and over, every day, the kidneys sort through all the blood in the body. They sift out about 2 quarts of water and many different waste products—all of which becomes urine.
- As people breathe, their kidneys move up and down.
- A baby’s kidneys begin to develop during the second month of pregnancy.

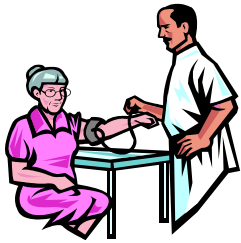
Facts About Kidney Disease

- More than 260,000 people in the United States have *chronic* kidney failure and need dialysis or a kidney transplant to live.
- More than 50,000 Americans die each year because of kidney disease.
- About 20 million people in the U. S. are affected by kidney diseases and urinary problems.
- Kidney disease is one of the most costly illnesses in the U. S. today—*about 17 billion dollars were spent in 1998*.
- According to the National Kidney Foundation, kidney and urinary problems result in 27 million doctor’s visits, 6 million hospitalizations, and about 2.5 million surgeries—every year!
- In 1996, there were more than one million cases of kidney stones reported in the U. S.
- According to the National Kidney Foundation, more than 35,000 people are waiting for a kidney transplant, but only 11,000 of them will get one because there aren’t enough organ donors to go around.



What Causes Kidney Disease?

- Many factors can cause kidney disease (which can lead to kidney failure).
- Kidney disease can happen quickly because of an injury, but most of the time, it happens slowly and “silently.”
- The two most common causes of kidney disease are 1) *diabetes* and 2) *high blood pressure*.



1. **Diabetes.** This disease keeps the body from using sugar properly. The unused sugar damages the nephrons inside the kidneys.

- Diabetes is the #1 cause of kidney failure in the U. S. Each year, about 40% of all *new* cases of kidney failure are due to diabetes.
- Over 16 million Americans have diabetes and 100,000 of them have kidney failure because of it.

2. **High Blood Pressure.** Also called hypertension, this condition can damage the small blood vessels in the kidneys.

- Overall, hypertension is the #2 cause of kidney failure in the United States. But, it's the #1 cause of kidney failure for African Americans. It causes over 15,000 new cases of kidney failure each year.
- Other causes of kidney disease include:
 - Toxins—such as lead and alcohol.
 - long-term use of pain medications—such as aspirin, Tylenol, and Motrin.
 - Infections in the kidney or in other parts of the body.
 - Injury.
 - Kidney stones.
 - Tumors and kidney cysts.
 - Severe dehydration.

Who Is at Risk for Kidney Disease?



- Slightly more men than women have advanced kidney disease—also called *End-Stage Renal Disease* (ESRD). Overall, more whites (61%) than blacks (32%) are afflicted with the disease.
- About 39% of people with ESRD are between 45 and 64 years old. Only 2% are under age 19 and 13% are over age 75.
- African Americans are 20 times more likely than whites to develop kidney failure due to high blood pressure.
- Diabetics are 20 times more likely to have kidney failure than someone who doesn't have diabetes. And the longer a person lives with diabetes, the greater the risk—Type I diabetics (who develop the disease as children) have about a 60% chance of developing kidney disease.

- Certain races have a higher risk for kidney disease. Native Americans, African Americans and Mexican Americans all have a higher risk of developing kidney disease than white Americans.
- About one third of the people with lupus have kidney disease. Lupus, a disease of the immune system, causes an inflammation of the kidney.

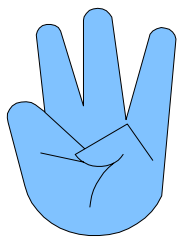
News Flash . . .

Recently it was reported that Billy Preston, an African American singer, song-writer, and member of Eric Clapton's band was hospitalized after being diagnosed with chronic end-stage kidney disease. Doctors think that his kidney problem was caused by high blood pressure. He is urging everyone with a family history or symptoms of high blood pressure to see a doctor right away.



Types of Kidney Problems

- The worst kind of kidney problem is when the kidneys totally shut down. This is known as *kidney failure*. There are three types of kidney failure:



1. **Acute Renal Failure (ARF).** Sometimes kidney problems happen very quickly. When kidney function stops suddenly, it's called *acute renal failure*. Surgery, severe burns, losing a lot of blood, drugs, toxins, heat stroke, kidney stones or an accident can cause this to happen. ARF may lead to permanent kidney disease, but if the kidneys aren't too damaged, doctors may be able to fix the problem.

2. **Chronic Renal Failure.** This type of kidney failure happens slowly (over a period of many years) and silently (not showing any symptoms at first). Diabetes is the leading cause of this type of kidney failure and untreated hypertension is the second most common cause. Other causes include: long term use of pain killers (like aspirin, Tylenol and Motrin), kidney cysts, artery blockages and toxins. Chronic renal failure is *not* reversible or curable, but it can be treated.



3. **End-Stage Renal Disease.** Also known as ESRD, this disease means that the kidneys aren't able to function much at all on their own. Diabetes is the most common cause of ESRD. People with ESRD must have dialysis treatments (artificial removing of waste products) or a kidney transplant in order to stay alive. End-stage renal disease is a *permanent* condition.



- Other kidney problems include:

1. **Kidney Infection.** An infection is usually caused by bacteria spreading from the bladder to the kidneys. If left untreated, a kidney infection can cause permanent damage.
2. **Polycystic Kidney Disease (PKD).** This is a genetic disorder where cysts grow in the kidneys—reducing kidney function and causing kidney failure. A certain form of PKD can be passed down from parent to child. The child may grow slowly, vomit often and have back and/or side pain.
3. **Nephrotic Syndrome.** This condition causes *high* levels of protein in the urine and *low* levels in the blood. In children, 80% of cases are successfully treated.
4. **Renal Tubular Acidosis (RTA).** This disease keeps the kidneys from filtering out the acids in the blood. If untreated, RTA causes slow growth, kidney stones, bone disease and kidney failure. When treated, the damage is reversible.
5. **Kidney Stones.** Crystals form in the kidneys making a small, hard stone-like mass that may move through the ureters.

An Interesting Theory

A researcher thinks that Charles Dickens, the author of "A Christmas Carol", may have been describing a child with RTA when he created Tiny Tim for his famous story. Tiny Tim's small build, poorly formed legs, and periods of weakness are all possible side effects of the disease RTA. Tiny Tim's condition is fatal in one scene, but curable when Scrooge pays for medical treatments.



Signs and Symptoms of Kidney Disease

- Loss of kidney function can happen very quickly—over days, weeks or months or it can be a very gradual and slow process taking many years to occur. It's usually a "silent" process, too.
- Kidney damage may take decades to develop. Often, the signs and symptoms aren't noticeable until it's too late—by then the damage is permanent.
- People in the *early* stages of kidney disease often may not even feel sick—the first signs of sickness may include: headaches, tiredness and itchiness all over the body.
- Many times, kidney disease is discovered by accident when doctors order blood and urine tests for some other reason.



- There are many signs and symptoms—some may depend on the type of kidney problem.
- A person may have many symptoms or just a few. In general, signs and symptoms may include:

- Frequent headaches
- Fatigue or tiredness
- Unusual itching
- High blood pressure
- Decrease in urination
- Blood in the urine
- Swelling of hands and feet (edema)
- Numbness in hands and feet
- Bleeding in the stomach or intestines
- Abnormal urine tests

- Loss of appetite
- Nausea or vomiting
- Confusion
- Seizures
- Coma
- Weight loss
- Anemia
- Concentration problems
- Muscle cramps
- Yellowish/brown color to the skin
- Sleep disorders

Side Effects and Complications



- Long term kidney disease—like chronic renal failure, and ESRD may cause your client to have the following side effects and complications.
- **Anemia.** This condition occurs when people don't have enough red blood cells. It tends to happen to people on dialysis because their kidneys don't make hormones anymore. Children with anemia may not grow normally and adults with anemia are more likely to have heart problems.
- **Edema.** This condition is from fluid retention—the body holds in fluids. It may cause swollen arms, legs, hands and feet. There may be puffiness in the face and congestion in the lungs.



- **Other complications may include:** Stomach ulcers, changes in skin color, weak bones that break easily, congestive heart failure, dementia, high blood pressure, and failure to grow (which is the most serious complication in children with kidney disease.)
- Be sure to report any changes in your client's symptoms to your supervisor right away!

What would you think if . . . ?

A client tells you that her legs just want to keep moving. She can't sleep because she has to keep walking. Well...she isn't imagining it! There is a condition called **Restless Legs Syndrome (RLS)** that can affect people who develop kidney failure. It's described as "creepy, crawly, bubbly, or tingly" and this strange feeling of the legs is hard to shake. 20-40% of people on dialysis have it. Medication can help, so . . . tell your supervisor!



How Is Kidney Disease Treated?



- The treatment for kidney conditions depends on the type of kidney problem—for example, a kidney infection requires antibiotic therapy and stubborn kidney stones may require surgery or shockwave treatments.
- If there are other health conditions involved—like diabetes or high blood pressure—the doctor will most likely order medications and special diets to help keep them under control.
- In the early stages of kidney disease, certain medications and special diets can help slow down the disease—making the kidneys last longer.
- To keep the extra fluids and wastes from building up in the blood, many people must limit what they drink and eat. (See pages 9 -10).



- When diet and medications aren't enough, dialysis or a kidney transplant is needed.
 - **Hemodialysis.** This is the most common form of dialysis. It removes extra fluids and wastes from the blood by filtering them through a machine. An AV fistula (like a permanent IV) may be surgically inserted into the arm or leg of someone on hemodialysis.
 - **Peritoneal dialysis.** This treatment uses the tiny blood vessels in the abdomen to filter the blood. A fluid is inserted through a catheter into the abdomen and after a few hours it's drained away.
 - **Transplant.** A donated kidney (either from a living person or from someone who has recently died) is used to give a better life to someone with kidney failure.

People with total kidney failure used to die within a few days. Today, because of dialysis, they can live much longer.



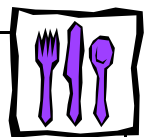
How You Can Help Your Dialysis Clients. . .

- Encourage your clients not to skip their dialysis sessions! Skipping sessions can be very dangerous.
- Hemodialysis is usually done *three times a week* and each treatment lasts about 2 to 4 hours. Peritoneal dialysis is usually done *several times a day*. The fluid stays in the abdomen about 4 to 6 hours each session. Keep in mind that you may have to work around your client's dialysis schedule.
- It's important to watch for possible complications. The most common side effects for hemodialysis clients are muscle cramps and hypotension, which is a sudden drop in blood pressure. This sudden drop can make people feel weak, dizzy, or nauseated.



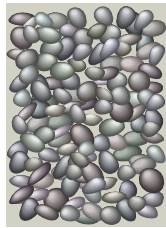
- Make sure your clients keep their AV fistula access clean. Watch for signs of infection—redness and swelling.
- Encourage them to be careful not to bump or cut their access and not to wear tight clothing or jewelry over it.
- Remind your clients not to have their blood pressure taken on their access arm.
- A common problem of peritoneal dialysis is an infection at the catheter site. It can cause a fever and stomach pain. Watch for reddening or swelling around the catheter.

Encourage your clients to follow their special (renal) diets!



More about Kidney Stones

- When certain chemicals and minerals build up in the kidneys, crystals form into small, hard stones.
- The stones may stay in the kidney or they may travel through the ureters causing *extreme pain*.
- Most stones pass out of the body on their own without any help from a doctor. To help stones pass, plenty of water is needed—*2 to 3 quarts a day*. That's 8 to 12 cups! (Unlike, other kidney conditions, preventing kidney stones requires a lot of water—at least 14 cups a day.)
- More men than women tend to have kidney stones, and more white people than African Americans develop kidney stones. Kidney stones usually happen between the ages of 20 and 40. Once a person gets a kidney stone, there is a good chance that more will develop.



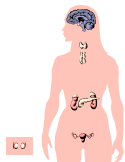
Believe it or not . . .

Scientists have found traces of kidney stones in mummies over 7000 years old!

- Doctors don't always know the cause of kidney stones, but they do know that they happen when the urine is too concentrated, acidic, or alkaline.
- Some other factors include: lack of fluids, family history, diet, drugs, having only one kidney, and certain medical conditions like urinary tract infections (UTI's), high blood pressure, and kidney cysts.
- Signs and symptoms may include one or more of the following: intense pain that starts in the back or side just below the edge of the ribs; bloody, cloudy or foul smelling urine; nausea and vomiting; frequent and difficult urination; a burning during urination; and fever or chills if there is an infection.

Some Interesting Facts about Water

The body is about 50% water, depending on the amount of body fat you have. Water makes up almost 85% of the brain, 80% of blood, and 70% of lean muscle.



Most Americans don't drink nearly enough water. Lack of water can lead to dehydration, which can make you sick. This can be a serious condition in young children and the elderly.



The average person loses about 10 cups of fluid a day by sweating, urinating, exhaling air, and having bowel movements.



Water does many things for the human body. It:

- Removes wastes
- Cushions your joints
- Helps prevent constipation
- Regulates body temperature
- Carries oxygen and "food" to the body's cells
- Helps the kidneys and liver by flushing out some of the toxins



How much should you drink? *The average is 8 glasses of water a day. Keep in mind that some people need more fluids than others. Also exercise (or any activity that causes you to sweat) and hot, humid or cold weather cause your body to need even more fluids.*

Kidney Disease Question & Answer

Q: Why do some people get kidney transplants?

A: Kidney transplants offer an improved quality of life...and a longer life...than dialysis treatments. However, most people have to wait a long time for a new kidney. Remember, having a transplant *isn't* a cure. There is always the chance that the body will reject the new kidney.



Q: Do people on dialysis urinate?

A: Some do. It all depends on how much kidney function a person has left. As the kidneys fail, they make less and less urine. *(All the extra water and wastes builds up in the blood instead, which is very dangerous. That's why dialysis and transplants are needed.)* So, don't assume that your renal clients don't need to use the bathroom. They might!

Q: What is a nephrectomy?

A: A nephrectomy is the surgical removal of a kidney and the surrounding tissues. This is usually done because of tumors, an injury, a blockage or when a kidney is diseased. *(FYI: During a transplant, the old kidneys stay where they are as long as they aren't diseased or causing high blood pressure. The new kidney from a donor is placed between the upper thigh and the abdomen.)*

Q: Why do some children with kidney disease fail to grow?

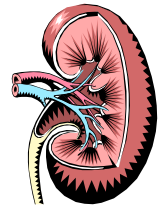
A: The kidneys are very important in a child's health. The kidneys help maintain calcium and vitamin D for the normal growth in bones. They also help provide the growth hormone. So, when the kidneys fail, the bones don't get enough calcium for a child to grow normally.

Q: Why do some people have only one kidney?

A: Some people are born that way. (More men than women are born with just one kidney. Usually, it's the left kidney that's missing.) In other cases, one kidney may need to be removed because of a tumor, a severe injury, a blockage, or a disease. And, some people have a single kidney because they have donated a kidney to a loved one with kidney failure.

Q: Is it a problem to have a single kidney?

A: Sometimes it can be a problem. A single kidney is usually larger and heavier than normal and as a result it's more exposed to injury. It's important for people with a single kidney to take extra care and wear extra padding when playing contact sports, such as, field hockey, football, ice hockey, lacrosse, soccer, martial arts, and wrestling.



Famous People with Kidney Trouble

- **Gary Coleman**—Actor, has had two kidney transplants.
- **Erma Bombeck**—American author and humorist, who was a peritoneal dialysis patient and received a kidney transplant.
- **James Michener**—Popular American author, who was on hemodialysis until age 92.
- **Walter Matthau**—Actor, who was on hemodialysis.
- **Benjamin Franklin**—Statesman of 18th century America, suffered from kidney stones.
- **Sean Elliot**—NBA basketball player for the San Antonio Spurs, has received a kidney transplant.
- **Ella Fitzgerald**—Singer, was on hemodialysis.
- **Aron Eisenberg**—Actor on Star Trek—Deep Space Nine, has received a kidney transplant.



Eating Right With Kidney Disease

- The special diet that's prescribed for people with kidney disease is called a *renal* diet. It's usually prescribed in the early stages of kidney disease—to keep the disease from getting worse—or in the late stages when a client is on dialysis.



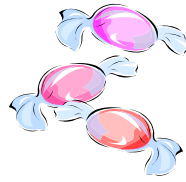
- The purpose of the renal diet is to give the body extra nutrients and to lighten the work of the kidneys by eating foods that pass through the kidneys easily.
- Each client on a renal diet will have a special eating plan created just for them based on their weight and how badly their kidneys are damaged. The renal diet may change if a client receives dialysis, too.
- Most people who follow a renal diet are able to slow down their kidney disease—so that it doesn't get worse as quickly. This means that by eating right, they may delay their need for long-term dialysis.
- For clients who are *already* on dialysis, a renal diet prevents additional complications of the disease, such as fluid overload, high blood pressure or an overdose of potassium.
- A renal diet helps clients on dialysis stay as strong as possible until a kidney is available for a kidney transplant.
- Remember that even if you have several clients on renal diets, each one of them might be allowed to eat very different foods.

Did you know that . . .

Using the illegal drug, heroin—even one time—can cause protein to leak into the urine and bring on swift kidney failure.



A Few Treats for Dialysis Clients



Caramels	Sour Balls
Gummy Bears	Red Licorice
Lemon Drops	Candy Corn
	Life Savers



(A one ounce serving of these candies contains less than 150 mg. of potassium. Ask your supervisor if these treats fit into your client's diet.)

- **In general, a renal diet includes the following:**
 - **Protein.** Often, clients are restricted to a *small* amount of protein every day because it has a lot of waste. This extra waste makes the kidneys work too hard.
 - **Calories.** A specific number of calories can be eaten every day.
 - **Sodium.** Most renal clients need to limit their salt intake so that the body doesn't hold onto fluids and swell up. Salty foods make people *thirsty*, too.
 - **Fluid.** Too much fluid makes the kidneys work overtime. When the kidneys don't work well, extra fluid builds up in the body. So, most renal clients need to limit how much they drink.
 - **Potassium.** A build up of potassium in the blood can be very harmful to the heart. Restricting it can help prevent serious heart problems.
 - **Phosphorous.** Too much phosphorus in the blood causes calcium to be "stolen" away from the bones. To keep their bones strong and healthy, renal clients need to limit this mineral in their diet.

Helping Clients Eat a Renal Diet



- Remember that the average person drinks at least 2 liters of fluid every day—*think of a 2 liter bottle of soda pop*. Many clients on a renal diet are restricted to only **1 liter** a day.

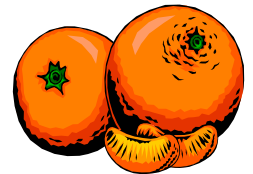
- Anything you drink counts as a fluid. This includes: water, soda pop, milk, coffee, tea, beer, wine, and juices.
- If your clients have to limit their fluids, remember that **any food that is liquid at room temperature** also contains water and it counts as a fluid. These foods include: soups, thin stews, ice cream, sherbet, Popsicles, Jell-O, custard, sauces, lettuce, and watery foods like watermelon. Be sure to measure these foods and count them as part of the daily fluid allowance.
- Clients who complain about being thirsty—but *who have a fluid restriction*—might benefit from using smaller cups/glasses and drinking tiny sips. (This lets them have a glass of liquid more often than if they drink from a large glass.) Also, you can try freezing juice in an ice cube tray and serving it like a Popsicle—it lasts longer than a little glass of juice!
- Be sure you know whether your client is supposed to:
 - **Eat small amounts of protein**—usually recommended for people with early kidney disease.
 - **Eat a lot of protein**—usually ordered for people on dialysis since dialysis “washes away” protein.

A Quick Tip: You can remove some of the potassium from potatoes (and other vegetables) by peeling them and soaking them in a large amount of water for several hours. Drain and rinse before cooking.



To Help Control Thirst, Have Your Clients:

- Suck on a slice of lemon
 - Suck on a few ice chips
 - Eat a sour piece of candy
 - Chew a piece of gum
 - Rinse the mouth with water, but don't swallow it
 - Avoid salty foods
- Encourage your renal clients to eat *high quality* proteins, which produce less waste than others. These include: meat, fish, poultry, egg whites.
 - If your clients have sodium restrictions, they may be tempted to use a salt substitute to flavor their foods. Remind them that salt substitutes contain potassium and may not be good for them.
 - If your clients have potassium restrictions, be sure you know which common foods are high in potassium. These include: bananas, avocados, milk, kiwis, dried fruit, oranges, melons, pears, potatoes, sardines, spinach, and tomato products.
 - It's a good idea to know if your clients are supposed to watch how much phosphorus they eat. Foods with high amounts of phosphorus include milk, cheese, nuts, dried beans, soda pop, chocolate, peanut butter, and pumpkin seeds.
 - If the doctor has prescribed a daily vitamin pill for your renal clients, be sure to remind them to take it.
 - Encourage your clients to eat all the foods on their meal plan—and praise them when they stick to their diet!!!



A Few More Tips



- Remind your clients to take their medications on time. Help them remember when to take their medications by suggesting they use a watch or alarm clock.
- Encourage your clients not to take any other medications—even *vitamins*—without talking to their doctor first. Over-the-counter vitamins may have ingredients that can be harmful for people with kidney disease.
- Remember that your clients on renal diets may have other health conditions like diabetes or high blood pressure. Check with your supervisor for more information about those illnesses.
- If your clients suffer from kidney stones, suggest that they drink *lemonade*. The citrate in it helps prevent stones from forming.
- It's very important for your clients who receive dialysis not to miss any dialysis sessions. If this happens, the extra water and wastes can build up in the blood causing their kidney function to get worse. Let your supervisor know right away if your clients are skipping dialysis sessions!
- Many times, clients on dialysis have problems with itching. It has been suggested that drinking spring water instead of tap water will help stop the itching. Tap water may have too many impurities in it, which may cause some of the itching.
- Some dialysis clients have suggested that using the herb witch hazel will help control the itching. Check with your supervisor about suggesting this remedy to your clients.
- It's important that your client have their pulse checked in their AV fistula access every day.



- Remind your clients not to sleep with their access arm under their head or body. This could put too much pressure on the access.
- It's important to be very careful with a dialysis client's access arm. Encourage your client not to lift anything heavy or to put too much pressure on that arm.
- If your client has a catheter access in the abdomen, it's very important to watch for signs of infection. Tell your supervisor right away if there is any redness or swelling around the catheter site. If the infection spreads to the abdominal lining, it can be very serious.
- Remind your clients to be careful. Infection can happen if there is a problem connecting or disconnecting the dialysis solution bags from the catheter.
- Remind your clients to check their dialysis solution (*called dialysate*) to see if it looks cloudy. If it does, it could be a sign of infection and it should be reported immediately.

A Few Quotes From Hemodialysis Clients

Dialysis sessions are:

"Boring."

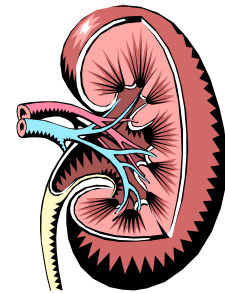
"I never knew time could go so slow."

"Like Chinese water torture."



- To help your clients cope with long dialysis sessions, suggest that they: read a book, magazine or newspaper; work on puzzles like word-search and crossword; watch TV; play card games like solitaire; write letters; or listen to music (they may need headphones for this).

Are You “In the Know” About Kidney Disease?



Circle the best choice and then check your answers with your supervisor!

1. Your dialysis client, Mr. Michaels, is on a restricted potassium diet. Which foods should he avoid?

- A. Bread and pasta.
- B. Bananas and dried fruit.
- C. Crackers and pretzels (salt-free).
- D. Apples and rice.

2. True or False

A kidney transplant is the only way to treat kidney failure.

3. If your client is on a renal diet, they may have to restrict their _____ intake:

- A. Sodium.
- B. Fluid.
- C. Potassium.
- D. All of the above.

4. True or False

Diabetes is the main cause of kidney disease.

5. This morning, you noticed that Mr. Jones’s face was puffy and his legs were swollen. You should:

- A. Prop up his feet .
- B. Tell your supervisor right away.
- C. Give him a cool bath.
- D. Ask him what he had to eat.

6. Which of the following is not a symptom of kidney disease?

- A. Edema.
- B. High Blood Pressure.
- C. Sore throat.
- D. Anemia.

7. True or False

People in the early stages of kidney disease may not feel sick at all.

8. True or False

Kidney stones must be removed surgically.

9. True or False

Most clients on renal diets are allowed to drink as much fluids as they want one day a week.

10. True or False

All clients with kidney disease have to follow the same renal diet.



EMPLOYEE NAME _____

DATE _____

I understand the information presented in this inservice. I have completed this inservice and answered at least eight of the test questions correctly.

Employee Signature _____

Inservice Credit: 60 minutes

Supervisor Signature _____

Self Study _____

File completed test in employee’s personnel file.

Group Study _____