Peer Mentoring

Course 3: End Stage Renal Disease Overview

ESRD NCC
NATIONAL COORDINATING CENTER

Course 3: End Stage Renal Disease Overview

This course has five parts:

Course 3: End Stage Renal Disease Overview

Welcome to Course 3!

This course builds on your knowledge of kidney disease. What you learn will help you to talk with your peer.

You are not expected to be an expert in kidney disease. That is the role of the healthcare staff at your facility. They will answer your peer's questions. They will also support you in your role as a peer mentor.

After taking this course, you will be able to:

- Describe how the kidneys work.
- List causes of kidney disease.
- Explain the stages of kidney disease.
- Describe the three types of vascular access.
- Identify and share resources on vascular access.

This course has five parts:

- Part 1: How the Kidneys Work
- Part 2: Causes of Kidney Disease
- Part 3: End Stage Renal Disease
- Part 4: The Basics of Vascular Access
- Part 5: Mentoring for Vascular Access

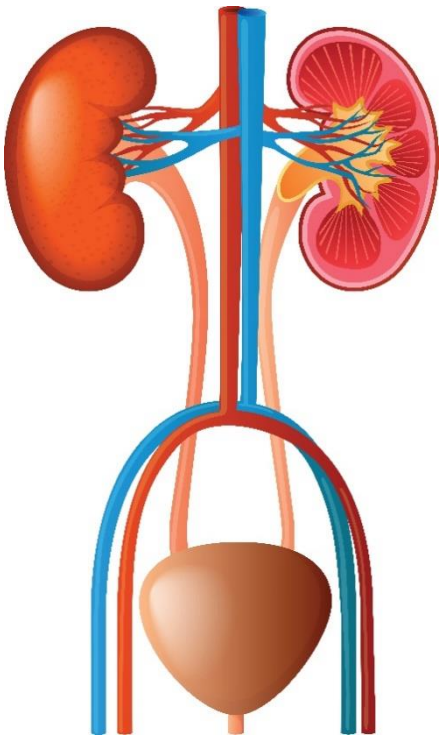
Please read all five parts. You can also go back and re-read parts as you wish.

After you have finished, take the quiz about what you learned.

Part 1: How the Kidneys Work

The body has two kidneys. Each one is about the size of a fist. The kidneys are located on the right and left sides of the body, just below the rib cage. Although the kidneys are very small, they play a large role in keeping the body in balance.

Kidneys have about a million tiny filters. These filters remove waste products and fluid. This happens as the blood passes through the kidneys. The waste and fluid leave the body as urine.



Here's what the kidneys do:

- Remove extra fluid.
- Remove waste products, like those from foods and medicines.
- Balance calcium and phosphorus.
- Control blood pressure.
- Assist with making red blood cells.
- Activate Vitamin D, needed for healthy bones.

The filters in the kidneys may become damaged. If this happens, the waste products and water build up in the body. The person may feel sick.

The kidneys may stop working. Then the person will need to get dialysis to replace the function of the kidneys. Or the person could get a kidney transplant.

Part 2: Causes of Kidney Disease

A disease or condition can cause the kidneys not to work as well as they should. This is called kidney disease.

Or the kidneys could stop working. This is called kidney failure. Another name for kidney failure is end stage renal disease.

Kidney disease and kidney failure can develop over several months or years.

Renal is another word for kidney.

Renal disease = kidney disease

Causes of Kidney Disease

What causes the kidneys to stop working as they should?

Diabetes and **high blood pressure** are the most common causes of kidney disease.

Other causes are:

- Attacks on the body by its own defense or immune system. This can happen with diseases such as lupus where the body's immune system attacks healthy parts of the body.
- Inflammation of the kidney's filters.
- Cysts on the kidney. Cysts are sacs that may be filled with liquid or other material.
- Blockage for a long time of the body's drainage system for urine.
- Kidney infections that happen again and again.

Part 3: End Stage Renal Disease

Stages of Kidney Disease

Kidney disease has five stages. Stage 1 is the beginning of kidney disease. As the person goes from Stage 1 to Stage 5, the kidneys can do less and less of the work they are supposed to do. Stage 5 is end stage renal disease. This means the end stage of the kidney's function, not the person's life.

Kidney disease takes time to develop into end stage renal disease. It can even take years. The length of time varies for each person. It may depend on the cause of the kidney disease and how the kidney disease is managed.

How the Kidneys Work in Each Stage of Disease
Stage 1. The kidneys can handle most of their work without any problems.
Stage 2. The kidneys start to show mild loss of function. Mild loss of kidney function is when kidneys are working at 60 to 89 percent.
Stage 3. The kidneys show mild to moderate loss of function. Moderate loss of kidney function is when kidneys are working at 45 to 59 percent.
Stage 4. Kidney function is severely decreased. The kidneys cannot work on their own.
Stage 5. The kidneys lose their ability to filter waste products and fluid. This usually requires dialysis or a kidney transplant to replace the function of the kidneys.

Decisions about the type of dialysis or a kidney transplant may occur at any stage of kidney disease. Some people do not make the decision until they are in Stage 5, especially if they are not seeing a kidney doctor.

Symptoms of Kidney Disease

A person has more and more symptoms as he or she moves from one stage to the next.

In the early stages, the person may not have any symptoms. Stage 5 is called kidney failure or end stage renal disease. This means the end stage of the kidney's function, not the person's life. The kidneys no longer work well enough to meet the body's needs, so a person will have many symptoms.

What a Person May Experience in Each Stage of Kidney Disease
Stage 1. Usually the person has no symptoms.
Stage 2. A person might not have any symptoms. Some typical signs include protein in the urine, swelling of the legs and feet, and high blood pressure.
Stage 3. A person may have signs of illness, such as bone disease, low red blood cell count, or weakness.
Stage 4. A person may have dizziness, weakness, and nausea.
Stage 5. A person may experience: • Loss of appetite • Dry, itchy skin • Trouble breathing • Not as much urine leaving the body • Feeling tired • Nausea • Sleep problems • Swelling of the feet and ankles • Feeling thirsty a lot • Painful muscle cramps, such as in the legs

Part 4: The Basics of Vascular Access

When the kidneys stop working, dialysis or a kidney transplant is needed.

Hemodialysis is one type of dialysis. Blood is pumped out of the body to a machine that acts as a kidney. The machine cleans the blood. The blood is returned to the body after it is cleaned.

The machine must connect to the body's circulatory system. A vascular access is what is used to connect the machine to a person's circulatory system.

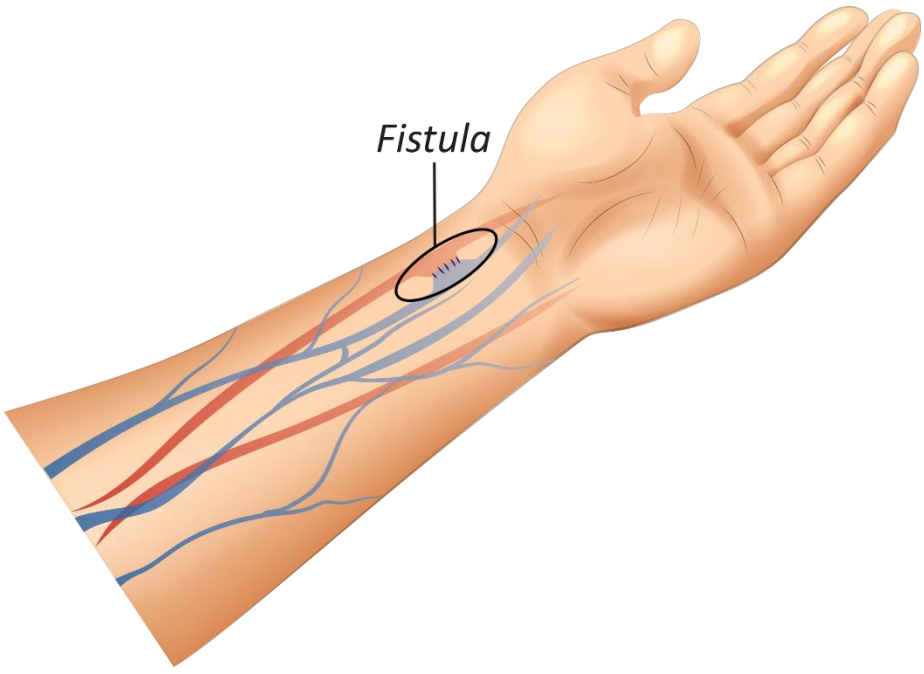
Circulatory system = blood system

Hemodialysis treatments are usually needed at least three times a week to clean the blood and remove extra fluid. Hemodialysis can be done at home or at a dialysis center.

There are three types of vascular accesses:

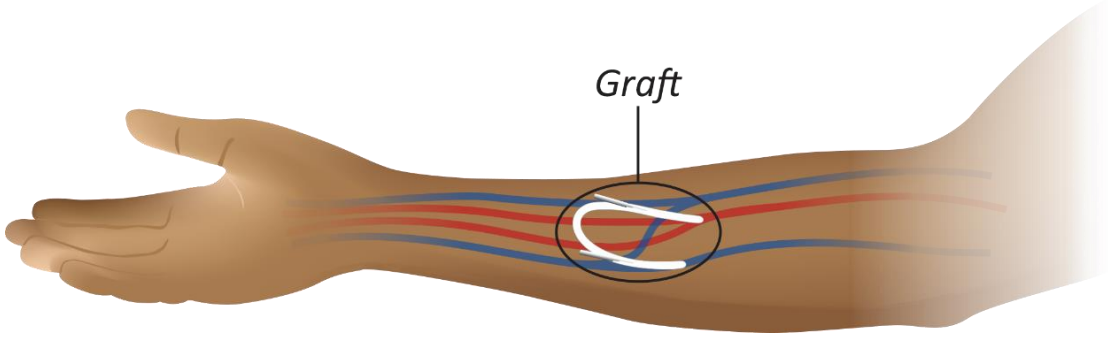
1. Fistula

For this type, a person's own vein is connected to an artery. This forms the fistula.



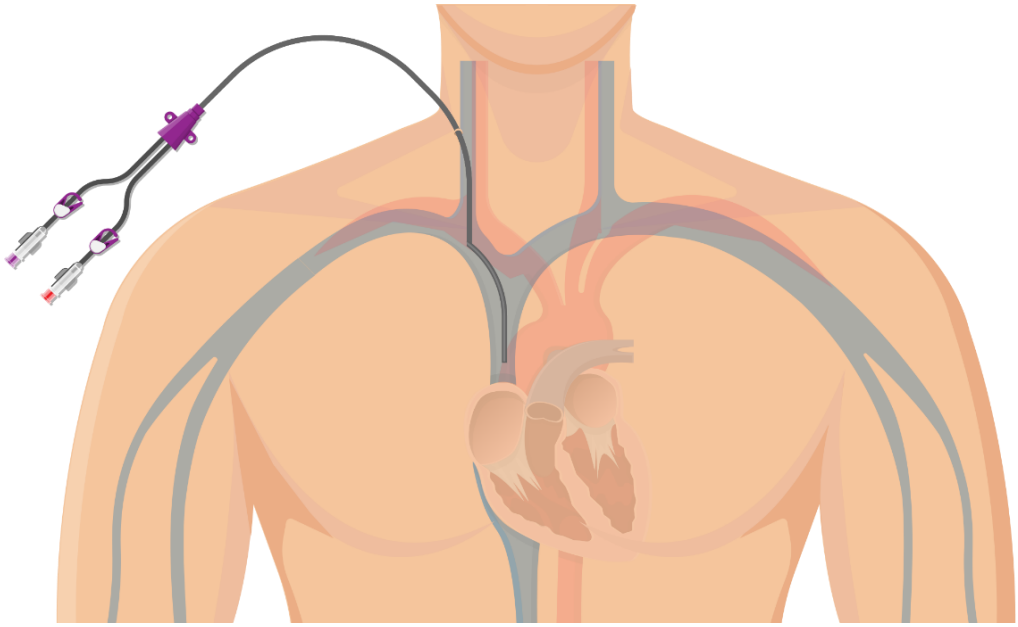
2. Graft

An artificial material is placed under the skin. The material connects a vein to an artery.



3. Central Venous Catheter

A flexible tube is inserted through the skin in the neck or chest. The tube is placed into a large vein and ends in the heart.



The Three Choices for Access

Many individuals getting hemodialysis will need a permanent vascular access at some point. Some people may need more than one.

A fistula or a graft is a permanent access. A person needs surgery to get one. But a fistula or a graft can last a long time and can be used over and over again.

A person may be able to keep a fistula the longest of the three options. Also, a fistula does not have as many problems connected with it as a graft or a catheter does. A person with a fistula may not have as many infections as someone with a graft or a catheter. And a person with a fistula may not have to go to the hospital as often.

A fistula does not have as many problems as a graft or a catheter.

In most cases, a catheter is only temporary. A catheter does not last as long as a fistula or a graft. A catheter also has a higher risk of infection. A person with a catheter may also experience:

- More stays in the hospital.
- Longer treatment times.
- Not being able to shower without a special covering.
- More clotting in the catheter than in other types of access.
- Risk of destroying an important vein that the catheter is in.

People getting hemodialysis should know about all three options. Then they can take part in decisions about which vascular access to get.

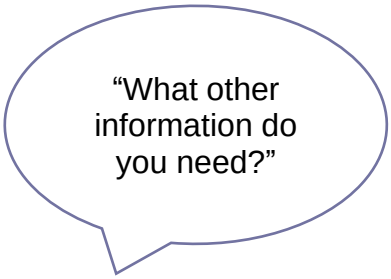
Course 3

Let's Practice Mentoring!

Steve is a peer mentor who has been paired with Bob. Bob has been on dialysis for six months and still has a central venous catheter. Bob's doctor has mentioned that he needs to get a permanent access. Bob asks Steve to review the different types of access. Bob asks Steve what he thinks is the best type of access to get.

Steve begins by finding out Bob's understanding of vascular access. He asks open-ended questions.

- What do you know about vascular access?
- What questions do you have?



Bob wants to know how a fistula works. He wants details about the surgery.

Steve gives Bob a copy of a resource that describes vascular accesses. He lets Bob know that the healthcare team will answer his questions. He does not give medical advice.

How do you think Steve did?

Steve handled Bob's questions just right. He shared resources and did not give medical advice.

As a mentor, Steve can share resources with Bob. Steve should:

- Know what resources are available.
- Understand what Bob can learn from the resources.
- See how the resources can help Steve in his role as a peer mentor.
- Share resources with Bob.

Steve could have suggested that Bob work with the healthcare team on a vascular access plan. The earlier Bob is involved with the planning, the better.

As a peer mentor, you are not expected to know all the answers to questions. In fact, you should not answer your peer's questions about medical issues. Instead, ask your peer to talk with the healthcare team.

Part 5: Mentoring for Vascular Access

You can share these resources about vascular access with your peer. They may empower your peer to make an informed decision about which access to get.

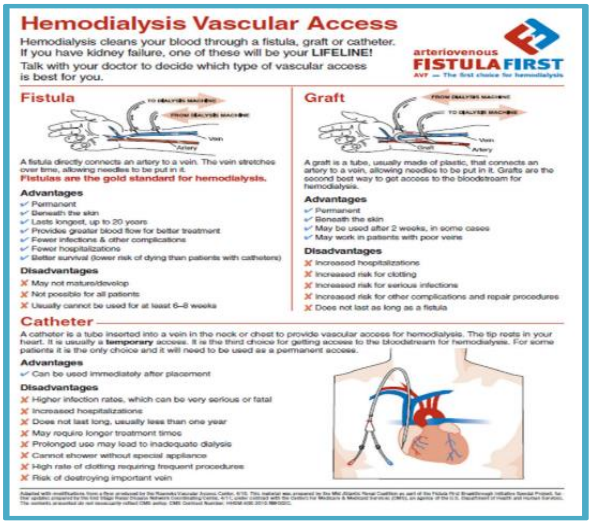
You are not expected to know all of the information in the resources. Instead, you need to:

- Know what resources are available for your peer.
- Understand what your peer can learn from the resources.
- See how the resources can help you in your role as peer mentor.

For any questions, you can encourage your peer to talk with the healthcare team. You can also suggest your peer work with the healthcare team on a vascular access plan. The earlier a peer is involved with the planning, the better.

1. Hemodialysis Vascular Access

This flyer explains how a fistula, a graft, and a catheter are created. It also includes facts to consider about each one.



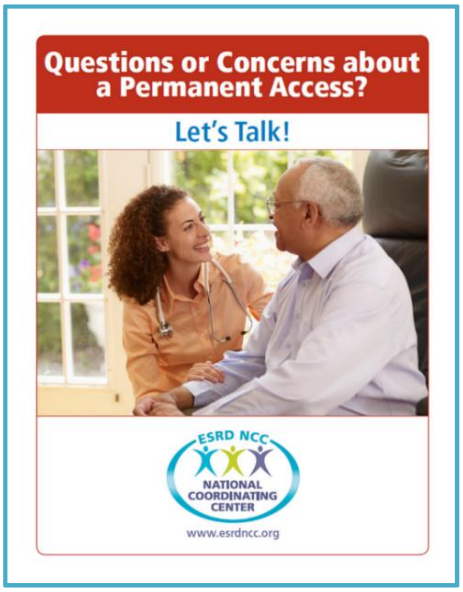
Your peer can read this to learn about vascular access. He or she can see the advantages and disadvantages of each type.

This resource will allow you to:

- Talk about vascular access with your peer.
- Find out what your peer already knows.
- Learn if your peer needs more information.

2. Questions or Concerns about a Permanent Access? Let's Talk!

This booklet offers guidance on permanent access.



Your peer can learn about the importance of a permanent access. He or she can also read answers to common questions and concerns. Your peer will also learn how to take an active part in his or her own healthcare.

This resource will allow you to:

- Help your peer identify concerns about a vascular access.
- Review common questions about getting and using a permanent access.
- Help your peer to figure out his or her questions.
- Encourage your peer to meet with the healthcare team to talk about concerns.

Tips for Success

- Always begin with finding out your peer's understanding.
- Ask open-ended questions.
  - What do you know about vascular access?
  - What questions do you have?
  - What other information do you need?
- Connect your peer with the healthcare team to talk about a plan for vascular access.

Where to Find Resources on Vascular Access

You will find the resources listed in this course by going to the home page of this program. Click on the Resource button to find the links. Check to see if your dialysis facility can help print these for you.

Next Steps in the Training Program

Congratulations on completing Course 3, End Stage Renal Disease Overview!

Next, **please complete the Course 3 Review Quiz.**

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