

Lifeline for a Lifetime:

Planning for Your Vascular Access



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Introduction

Kidney failure means that your kidneys can't clean your blood of the waste products and the fluid that builds up in your body. When your kidneys start to fail, it may take a few years for them to stop working. Once they stop working, it is called kidney failure.

If you have kidney failure, you will need dialysis or a kidney transplant to stay alive. A kidney transplant is surgery to place a healthy kidney into a person with kidney failure. Most people need to do dialysis while they are checked to see if they can get a transplant. The amount of time you have to wait for a new kidney is different for every person. It depends on a lot of things. Your practitioner or dialysis care team will help you understand what this means for you.

Starting Out: Understanding My Treatment Choices

When you start dialysis, you may have questions about your treatment choices. There are three main types of treatment:

- **Hemodialysis (HD):** a type of dialysis done at home or in a clinic;
- **Peritoneal dialysis (PD):** another type of dialysis that is done at home; and
- **Kidney transplant:** receiving a new kidney from a living or deceased donor.

If you think peritoneal dialysis is the best for you, you will need to have an access made especially for PD. Talk to your care team about this type of access.

Your dialysis care team can help you learn more about each choice.

How Do I Choose a Treatment?

It is important for you to review each of your treatment choices. If you have questions about the types of treatments, there are materials in the appendix that you can review. Talk with your practitioner or dialysis care team to help you decide which is the best choice for you.

If you think hemodialysis is best for you, you will need to have a vascular access made. You need this so your blood can be cleaned by the dialysis machine.

I Am Going to Do Hemodialysis and Need an Access Plan

If you and your dialysis care team decide that hemodialysis is the best choice for you, you will need to have a vascular access made. This is important because an access is your lifeline for a lifetime. Your dialysis care team will tell you about the types of vascular accesses you can have. For most people, an AV fistula is the best type of access. You need a vascular access so blood can flow in and out of the dialysis machine. The dialysis machine will clean your blood of the wastes and fluids that have built up as it moves in and out of the machine.

This guide is meant to help you get started in making a vascular access for hemodialysis. In order to get started, you will need an access plan to help guide you through all the steps to-

The guide below lists all the steps in your access plan. You can use this guide to keep track of the access planning steps. After you review all the steps, you should be able to see what step you are on. Some of you may need to start at the beginning and go through all the steps. Some of you may already have an access in place. If you are at Step 8, you should be doing your daily one minute access check.

Step #	Step Name	What Does This Step Mean For Me?
Step 1	Making an access plan	This step shows you what is in an access plan. Once you review it, you will see what step you are on.
Step 2	Finding the best place for my access	This step tells you how the surgeon will find the best place for your access to go.
Step 3	Going to see the surgeon	You will need to go see the surgeon before you get scheduled for your surgery. This step tells you how to prepare for the visit and what will happen on the visit.
Step 4	Going for surgery	This is a big step, so make sure you read it carefully. You will learn what will happen when you go for surgery and about going back to see the surgeon.
Step 5	Waiting for my access to mature or heal	How long this step takes will depend on what kind of access you have. Your dialysis care team will help you understand what this means for you.
Step 6	Using my access	This step tells you what to expect when the dialysis care team starts to use your access for your dialysis. They will have a plan for how to do this.
Step 7	Getting my catheter out	Once you are using your access without any problems, you will need to go to have your catheter taken out.
Step 8	Taking care of my lifeline for a lifetime	This step tells you how to do your daily one minute access check. Your care team will teach you how to do the check.

Step #1: Making an Access Plan

What is an access plan?

In order to get started, you will need an access plan to help guide you through all the steps toward a fistula or graft. You and your dialysis care team will make this plan together. For most people, a fistula is the best type of access. An access plan helps guide you through the steps you need to take in order to make sure you have the best access for you. It is important to note that you may need more than one access over your lifetime. There is a simple checklist in this manual that will help you keep track of your plan. Make sure you have a copy of the plan.

The eight steps in your access plan are:

1. Making my access plan
2. Finding the best place for my access
3. Going to see the surgeon
4. Going for surgery
5. Waiting for my access to mature or heal
6. Using my access
7. Getting my catheter out
8. Taking care of my lifeline for a lifetime



Step #2: Finding the Best Place for My Access

How will the surgeon know what type of access is best for me and where it should go?



To find the best place for your access, the surgeon needs to have a picture of your blood vessels before he or she does surgery. This test is called “vessel mapping.” It is a simple test done with an ultrasound machine. No needles are used during the test.

Some surgeons do their own vessel maps. But since not all do, you might need to go to someone other than your surgeon to have the map done. This test will be set up by either your surgeon or your dialysis care team.

After the test, your surgeon will review the vessel map. The map will help the surgeon decide what type of access is the best for you and where it should go.

I have my vessel map. What should I do now?

While you are waiting to meet with your surgeon, you need to take care of your veins. Here are some tips to help you do that.



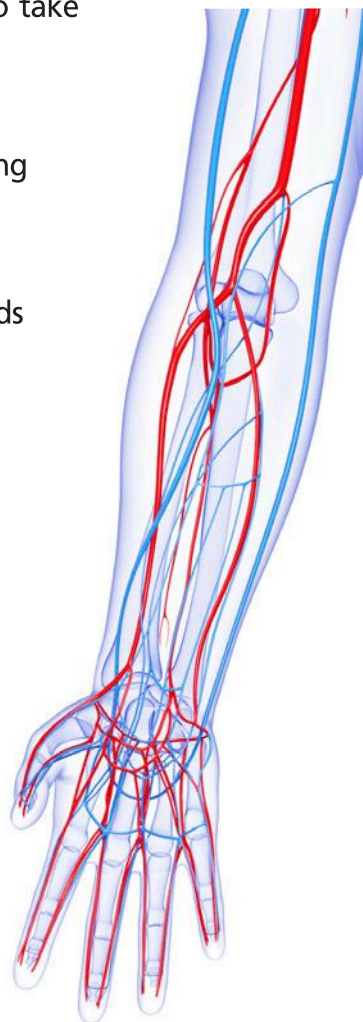
DO:

- Tell the person taking your blood that you are going to have an access in your arm, or that you already have one in your arm.
- Ask them to use the veins on the back of your hands



DON'T:

- Let anyone take blood from the veins in your arms above your wrists.
- Let anyone give you a shot in your upper arm.
- Let anyone take your blood pressure in the arm with your access.



Step #3: Going to See the Surgeon

Why do I need to go see the surgeon before my surgery is scheduled?

The surgeon is an expert at making vascular accesses. He or she needs to see you before surgery to make sure you are ready. Be sure you know where to go for the visit. Allow plenty of time to make it to your visit. Take a list of questions with you to ask about what to expect when you have the surgery to make your vascular access.

A list of questions which you can take with you is available in the back of this manual.

At your appointment, your surgeon will review your vessel map. The map will help the surgeon see what type of access is best for you and where it should be placed. The surgeon will also record your medical history and check the blood vessels in your arms. He or she will ask you about:

- Your health
- IV lines you have had
- Your medicines
- Allergies
- Other surgeries you have had

These are questions most people have about their surgery. Your surgeon can answer these for you:

- Should I take all my medicines before I come in for my surgery?
- How long will I be at the hospital or surgery center when I have my **surgery**?
- Will I need to be put to sleep for the surgery?
- Will I have to stay in the hospital overnight?
- Should someone come with me?
- Can I drive myself home after my surgery?
- Will you give me something for pain to take home with me?
- Can I use my arm after I have surgery?
- Will the arm with my access look different?

Ask your surgeon to:

- Talk with your dialysis care team so they know the plans for your surgery
- Send your care team a report from your visit
- Give you a copy of the report, too





How can I stay healthy before surgery?

Once the surgeon has seen you, he or she will make sure you have a date for surgery scheduled. It may be a few weeks before you go in for surgery. You should take good care of yourself until then.

- Go to all your dialysis treatments.
- Stay on the dialysis machine for your full treatment time.
- Stick to the diet made especially for you.
- Take your medications.
- Get enough rest.
- Try to exercise every day.
- Take care of the veins in your arms.
- Let your care team know the date your surgery is scheduled.

My Visit to the Surgeon

If the visit is on your dialysis day:

- Your dialysis care team will help you work this out.
- You will need to do both.
- You may need to change your dialysis day.
- Your care team will help you make the change.

If the visit is not on your dialysis day:

- You are good to go
- If you have questions, ask the dialysis care team to help you



Step #4: Going for Surgery

What is going to happen when I go for surgery?

Going in for surgery is your next step. This is when you will have a fistula made or a graft placed. Your surgery to get your access could take place at a surgery center or hospital. Make sure you know how to get there and give yourself enough time to do so. The surgery team will tell you what to do before you come in for surgery.

When you go for surgery you will be seen by several people on the team. Some of the questions they ask you will be the same. Try not to get upset by all this—they want to make sure you are safe. Here are some of the things you need to know to be prepared.

What do I need to do to get ready for surgery?

Make a list of your medicines to take with you. The surgery team will need to know if you take:

- A blood thinner
- Medicine for a heart problem, diabetes, pain, anxiety, depression, or psychiatric illness
- Over-the-counter medicines like herbs, vitamins, or minerals
- Home remedies

Tell the surgery team other health information such as if you:

- Have allergies
- Have a pacemaker or other heart device
- Have sleep apnea
- Have had a problem with anesthesia
- Are pregnant
- Are allergic to latex
- Smoke
- Drink alcohol
- Do not agree to take blood transfusions

When is My Surgery Scheduled?

If your surgery is on your dialysis day:

- Your dialysis care team will help you work this out.
- You will need to do both.
- You may need to change your dialysis day.
- Your care team will help you make the change.

If your surgery is not on your dialysis day:

- You are good to go.
- If you have questions, ask the care team to help you.



On the day of your surgery

Take off nail polish and artificial nails. Wear glasses, not your contacts. Do not put on lotion, cream, deodorant, powder, makeup or perfume.

Make sure you have the contact information for the surgery team and your dialysis care team.

After your surgery

You might have to go to the recovery room for a while. Before you leave to go home, a member of the surgery team will give you:

- A handout on how you can take care of your access
- A prescription for pain medicine
- The date and time to come back to have your access checked

Also, before you leave, ask the surgery team to:

- Send a report to the dialysis care team with a drawing of your access
- Give you a copy of the report

Here are some of the things you need to know after your surgery.

What do I need to do while my surgery site is healing?

Do not let the area around your incision get wet. Your surgeon will tell you how to take care of your surgery site. Make sure you understand what he/she wants you to do and for how long you should do it.

Tell your dialysis care team that you have had your surgery. Ask them to check the site to make sure it is healing properly.

Ask the dialysis care team how to contact them and the surgeon during business hours and after hours.



Let your dialysis care team know:

- If your sites are bleeding or leaking other fluid.
- If your surgery site is getting red, is hot, or starts to swell.
- If you start having more pain.

Let the surgeon know:

- If your hand starts to hurt a lot, gets numb, becomes weak, or feels cold.

Step #5: Waiting For My Access to Mature or Heal

Fistula or Graft?

Your surgeon should tell you and the dialysis care team what kind of access you have. It will be either a fistula or a graft. A fistula is made by joining your own artery to your own vein. When the surgeon places a graft, he or she will use a plastic tube to connect an artery to a vein. If you are not sure what you have, ask your care team to tell you.

If You Have a Fistula: Going Back to See the Surgeon

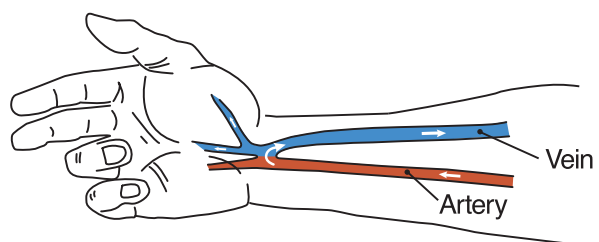
Most surgeons will ask you to see them about two weeks after the surgery so they can make sure your access is healing as it should.

After that, most surgeons will also ask you to come back again about six weeks after your surgery. On this visit, they will want to make sure the fistula is growing as it should. It can take several weeks for the fistula to grow enough to use it. The surgeon will let you know when it is ready to use.

If it is not growing as it should, you may need to have some tests. The tests might be:

- An ultrasound test
- A test where they put dye in your access and take x-rays

Many access problems can be fixed if they are found early.



Fistula

If You Have a Graft: Going Back to See the Surgeon

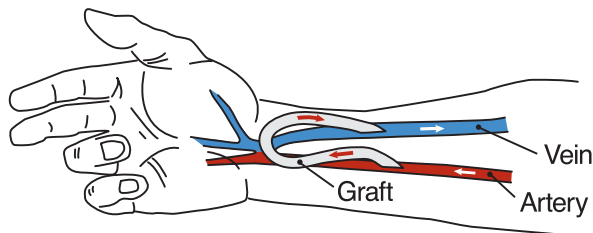
Most surgeons will ask you to see them about two weeks after the surgery so they can make sure your access is healing as it should.

At this visit, the surgeon will let you know when you can use your graft. A graft may be ready to use in three to four weeks.

If there is a problem with your graft, you may need to go for tests. Those tests might be:

- An ultrasound test
- A test where they put dye into the access and take x-rays.

Many access problems can be fixed if they are found early.



Graft

Step #6: Using My Fistula or My Graft

When can I start using my fistula for my treatments?

If you have a fistula, it will take several weeks for it to grow before you can start using it. How will you know when your fistula is ready to use? The dialysis care team will check your fistula each time you have dialysis. They will also teach you how to check it and what you should check for. You will need to check your fistula every day.

If the care team has questions about how it is growing, they may send you back to see the surgeon who put it in, a kidney doctor who is an access expert, or an x-ray doctor who knows about accesses.

If there is a problem, you may need to have it fixed.

The care team will be able to tell when your fistula is ready. They will talk with your surgeon about starting to use your fistula. When your fistula is ready for use, your care team will have a plan for how to put the needles in your fistula. The plan will include these steps:

- Putting one needle into your fistula and using your catheter, too.
- Using small needles for your fistula.
- Using your fistula with needles that are a bit bigger.

Many patients have questions about the needles when they start using their access. Ask your care team. There is a list of questions in the appendix which you may want to ask.

These steps will take a few weeks. When your care team is sure your fistula is working well, you and your care team can start making plans to get your catheter taken out. Make sure you are doing your **one minute access check**.

Look



Listen



Feel



When can I start using my graft for my treatments?

It will take a few weeks for your graft to heal before it can be used for dialysis. How will you know when it is time to start using it? The care team will check your graft each time you have dialysis. They will also teach you how to check your graft and what you should check for. You will need to check your graft each day.

The care team will be able to tell when your graft is ready and will talk with your surgeon about starting to use your graft. Most of the time, this will be three to four weeks after it was put in. If the care team has questions about whether it is ready or not, they may send you back to see the surgeon who put it in, a kidney doctor who is an access expert, or an x-ray doctor who knows about accesses. If there is a problem, you may need to have it fixed.

The care team will have a plan for how they put the needles into your graft. The plan will tell them to:

- Put a needle into both parts of your graft.
- Use needles that are the best size for your graft.

When they are sure your graft is working well, you and your care team can start making plans to have your catheter taken out. Make sure you do your one minute access check while you are waiting to use the graft. Go to Step 8 to learn how to do the one minute access check.

Many patients have questions about the needles when they start using their access. Ask your care team if you have any questions. There is a list of questions in the appendix which you may want to ask.



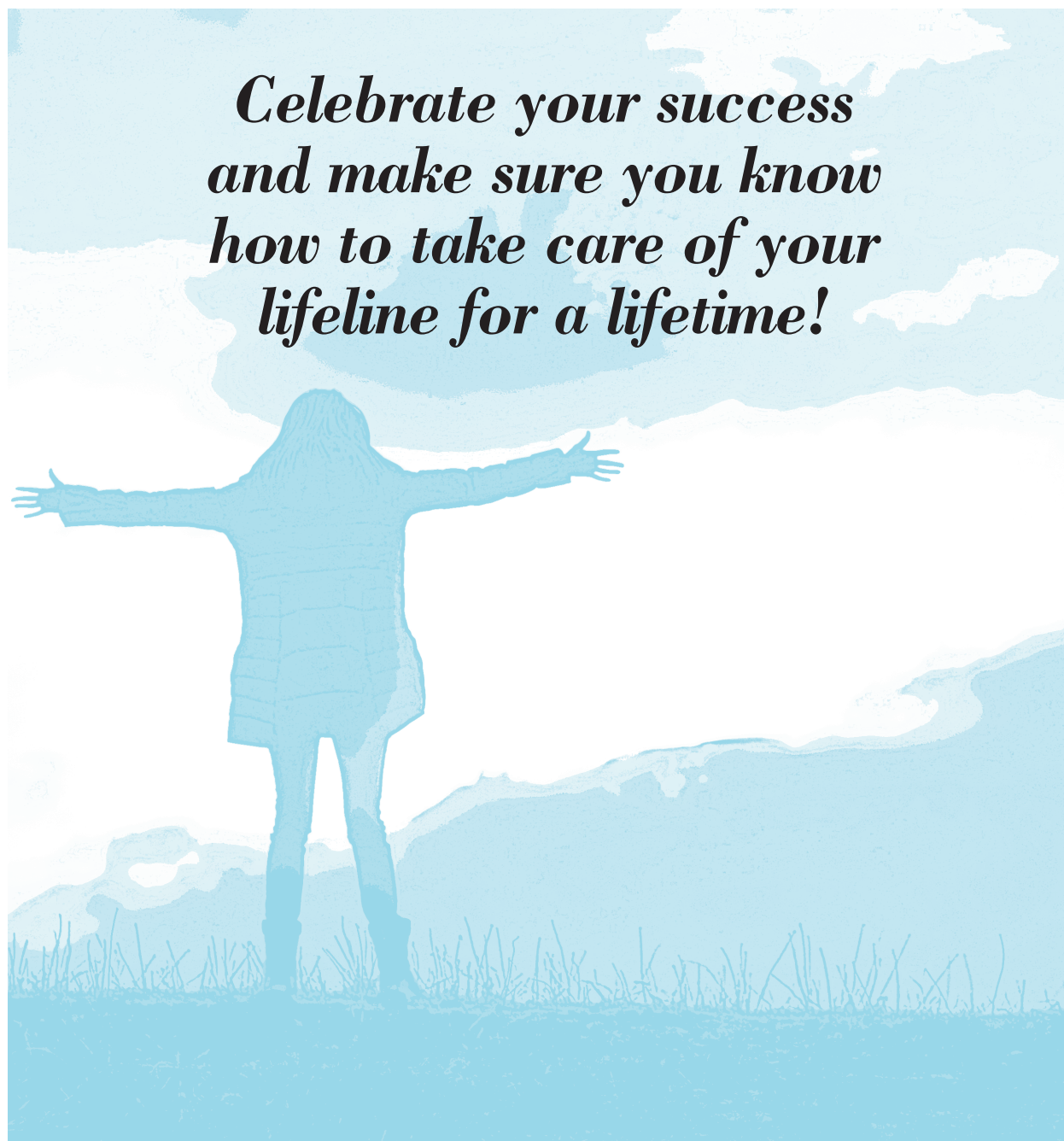
Step #7: Getting My Catheter Taken Out

When can I have my catheter taken out?

When the dialysis care team is sure your access is working well, they will send you to have your catheter taken out. This may be done:

- In the surgeon's office
- At the access center
- In the x-ray department

Be sure to let your dialysis care team know that your catheter has been taken out.



Step #8: Taking Care of My Lifeline for a Lifetime

How do I check my access to make sure it is working like it should?

To make sure your access keeps working well, you should do your **one minute access check** to save your lifeline for a lifetime. Ask your dialysis care team to teach you how to do this. If you are already doing your dialysis access checks, keep up the good work!

What will happen if I have a problem with my access?

It is important to make sure your lifeline for a lifetime keeps working as it should. Sometimes there will be problems with your access and you may have to go for tests. If the tests show a problem that can be fixed, it might be fixed on that day. Other problems might need to be fixed with surgery.

In a new fistula or graft, some problems may come up when you are waiting for it to grow or heal. Others may happen when you start using it. If there is a problem, the dialysis care team will send you to the surgeon, a kidney doctor who is an access expert, or an x-ray doctor who knows how to work on accesses.

If your fistula or graft has been in for a while, you and your care team may find a problem when you do the one minute access check. If that happens, they will send you to a surgeon, a kidney doctor who is an access expert, or an x-ray doctor who knows how to work on accesses. They will check your access to find the problem. Again, many problems can be fixed on that day.

Doing your daily one minute access checks will help keep your lifeline for a lifetime healthy and working well.

There are resources in the appendix to help you plan for and check your lifeline for a lifetime.



My Access Plan

Use the table on the next page as a guide through the eight steps of your access plan. You can keep track of the steps along the way.

- A.** Review all the steps, and pick which step you are on.
- B.** Check with your care team to make sure you picked the right step.
- C.** Work together with your care team to get things scheduled.
- D.** Put the dates on the checklist.
- E.** If you miss a date or it changes, your care team will work with you to make sure you stay on track.
- F.** Each time you complete a step, write in the date it was done.
- G.** When you are on step 7, you can start doing your daily one minute access check.
- H.** Keep up the good work!

Notes

MY ACCESS PLAN

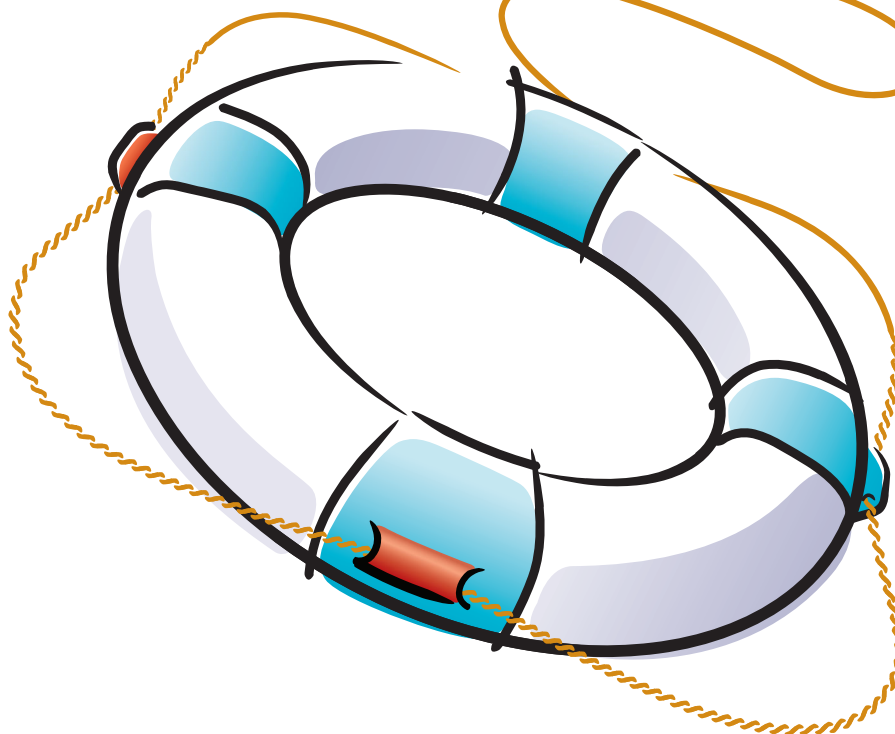
Step #	Step Name	Date Scheduled	What Does This Step Mean For Me?	Date Step Completed
Step 1	Making an access plan		This step shows you what is in an access plan. Once you review it, you will see what step you are on.	
Step 2	Finding the best place for my access		This step tells you how the surgeon will find the best place for your access to go.	
Step 3	Going to see the surgeon		You will need to go see the surgeon before you get scheduled for your surgery. This step tells you how to prepare for the visit and what will happen on the visit.	
Step 4	Going for surgery		This is a big step, so make sure you read it carefully. You will learn what will happen when you go for surgery and about going back to see the surgeon.	
Step 5	Waiting for my access to mature or heal		How long this step takes will depend on what kind of access you have. Your dialysis care team will help you understand what this means for you.	
Step 6	Using my access		This step tells you what to expect when the dialysis care team starts to use your access for your dialysis. They will have a plan for how to do this.	
Step 7	Getting my catheter out		Once you are using your access without any problems, you will need to go to have your catheter taken out.	
Step 8	Taking care of my lifeline for a lifetime		This step tells you how to do your daily one minute access check. Your care team will teach you how to do the check.	

Appendix

What should I expect when the needles are put in and taken out?

Many patients have questions about the needles when they start using their access. Ask your care team if you have any questions. Here are some of the questions you may want to ask them:

- Do the needles hurt when they go in?
- If the needles hurt me, is there something that can be done to help with the pain?
- What can I do to get used to the needles?
- Will I have any problems with the needles during my treatment?
- How can we make sure the needles stay in during my treatment?
- Am I going to put the needles in or will the dialysis care team?
- What will happen when you take the needles out?
- What should I do if my access starts to bleed when I am not at the dialysis clinic?



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***The ESRD National Coordinating Center and the
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End Stage Renal Disease National Coordinating Center

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