

THE HEMODIALYSIS PROFESSIONAL'S GUIDE TO

DIALYSIS PATIENT EMPOWERMENT





Lori Clark isn't your typical dialysis patient. She pays attention. She experiments.

One day, during her session, a nurse brought over a machine she had never seen before. It was [the Transonic HD03 monitor](#). The nurse hooked up the monitor without explanation, which left Lori wondering what this new machine did.

“ I didn't know it could help me,” she said of the HD03. “One time I got curious and asked, ‘What is it saying?’ The nurse told me, ‘Well, it says your number is 1400. That's good because below 600—that means you have a clot.’”

That simple information made Lori feel empowered.

“ I realized that if I went down to 600, they were going to operate on me. And it's painful. So, I need to take care of my graft. So every month I watch the numbers, and I always ask about them. But most patients don't know how to use this information.”

Patients like Lori may be few and far between, but educating and empowering patients to be active in their dialysis sessions and care has the potential to not only [improve outcomes](#) [but also reduce costs](#), according to the New England Journal of Medicine.



This guide will explore why and how dialysis patient empowerment benefits both your clinic and your patients—and what you can do to help patients take a more active role in their care.

PATIENT CARE:

Why Create Empowered Patients?

Dialysis patient care has been the same for decades, according to Dr. Richard Gibney, a nephrologist practicing in Waco, Texas.

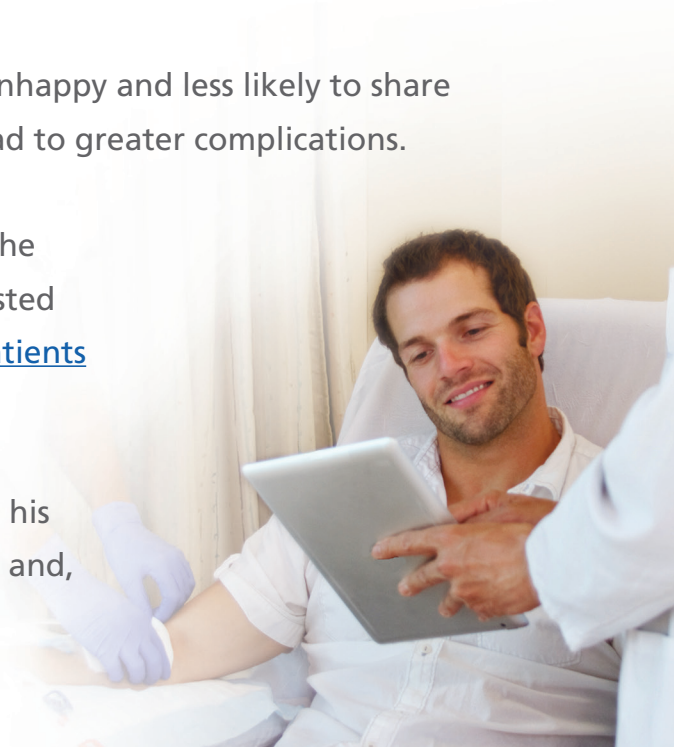
"It was, 'Come in, sit down, be quiet, don't touch anything,'" he explained. "You can imagine, basically they're helpless, they're learning how to be more helpless, they're bored, they're depressed, and we missed that whole point."

Lori's story—and that of many other dialysis patients—involved a nurse wheeling a machine up to her, turning it on, and that was that.

It's this passivity that Dr. Gibney asserts makes patients unhappy and less likely to share symptoms like pain during their sessions, which could lead to greater complications.

Patient empowerment professionals, who worked with the first patient in Sweden to do empowered dialysis, suggested to Dr. Gibney that [the machines be turned to face the patients and that they be allowed to touch them.](#)

"Those were radical, big changes," he explained. He and his staff implemented the changes in one unit of the facility and, as a result, "everything was a thousand times better."



In patients who participated in "self-care" dialysis, the hospitalization rates dropped to half of what they were before Dr. Gibney's clinic implemented the empowering changes. Not only that, his staff saw the mortality rate decrease by one third.

THE BENEFITS OF Empowered Patients

Your [patients need to become experts about their care and bodies](#), note authors Dori Schatell and Beth Witten, because they're only in your clinic about 14 hours—or 8 percent of their time—per week. That means the other 92 percent of the time they're on their own, managing their symptoms, care and diet.

“ The reality is, care provided by the clinic is only half of the outcomes equation. Patient involvement and follow-through is the other half,” Schatell and Witten write.

CONSIDER THIS

Empowered patients are more likely to keep appointments, which keeps the patient healthier and your clinic operating more efficiently.

Not only that, studies have found that those dialysis patients who felt empowered were better able to adapt to kidney failure than those who did not. These empowered patients had lower weight gains, less depression, greater self-efficacy and greater self-care than those who were not empowered.

When Lori was diagnosed with chronic kidney disease, she didn't originally feel empowered at all. In fact, she thought she might die.

“Because most people with chronic kidney disease don't even have money to take care of it, or they don't have enough information about the condition,” she said.

Thankfully for Lori, her doctor helped empower her by explaining how the disease is treated and that she would need to go on dialysis.

HOW EMPOWERED PATIENTS Benefit Your Clinic



Fewer hospital stays

An empowered patient is a healthier patient. And a healthier patient is less likely to have hospital stays, which benefits your clinic by allowing patients to keep their appointments.



Happier staff

Any program used to enhance patient knowledge and emotional well-being during dialysis has been shown to create happier patients, which makes staff happier—which, in turn, reduces turnover.



Better coverage

Empowered patients are more likely to remain employed during their treatments. Employer-sponsored health coverage pays significantly more than Medicare and pays higher amounts for reimbursable supplies and medications.

ENCOURAGE PATIENTS TO Participate in Their Care

DURING DIALYSIS

A simple way to begin empowering your patients is to encourage them to participate in their care. This can be done by making some tweaks in the way your staff communicates with patients. Instead of hooking a patient up to a machine and walking away, encourage staff to explain what's happening and why and to ask the patient if he or she has any questions.

ACCESS CARE

While Lori knew that caring for her access was important, it wasn't until she had the numbers from the HD03 monitor that she really understood how she could be active in protecting her access. In one instance, Lori was alerted to an issue after she saw her number decreasing.

“When the numbers started going down, I knew something was wrong,” she said.

It turns out she was wearing a tight fitting jacket while on dialysis, and by removing the jacket, her number went back up. In Lori's case, her tight jacket was acting as a tourniquet and may have closed off blood flow to her access.

“If the jacket's not obviously that tight, a clot will build up in time,” Lori surmised. “And you won't know where it came from. This is all guesswork for a patient because there's no way to know for sure. Having the Transonic machine helps a lot. Otherwise there will be no basis for me to even guess anything. It's helped me take better care of my access.”



Additional patient self care tips include:

- Don't use the access arm for heavy lifting or carrying purses
- Ensure your access arm isn't constricted by heavy clothing, which can act as a tourniquet to your vascular access

ENCOURAGE PATIENTS TO BE MENTORS

New dialysis patients often feel overwhelmed, scared and/or angry, which can affect their health. Ask those patients who are knowledgeable about self-care to mentor new patients. This can help reduce new patients' fears and set a good example.

Communication Resources to Empower Patients

PATIENT TIP SHEET:

What Happens During Hemodialysis?

You need dialysis when your kidneys are no longer able to take care of your body's needs—which is usually end stage kidney failure. During end stage kidney failure, your kidneys lose between 85 to 90 percent of their function.

HOW HEMODIALYSIS WORKS

Hemodialysis uses a hemodialyzer, which acts as an artificial kidney, to remove waste and fluid from your blood. Your blood enters the hemodialyzer through an access—an entrance to your blood vessels—usually on your arm or leg. This access is one of three kinds:

Catheter: This is an access that is ready right away but is generally used for temporary purposes while a graft or fistula is created. Catheters have a higher infection rate, so it is *very* important you make sure all contact with your catheter access is done using aseptic techniques.

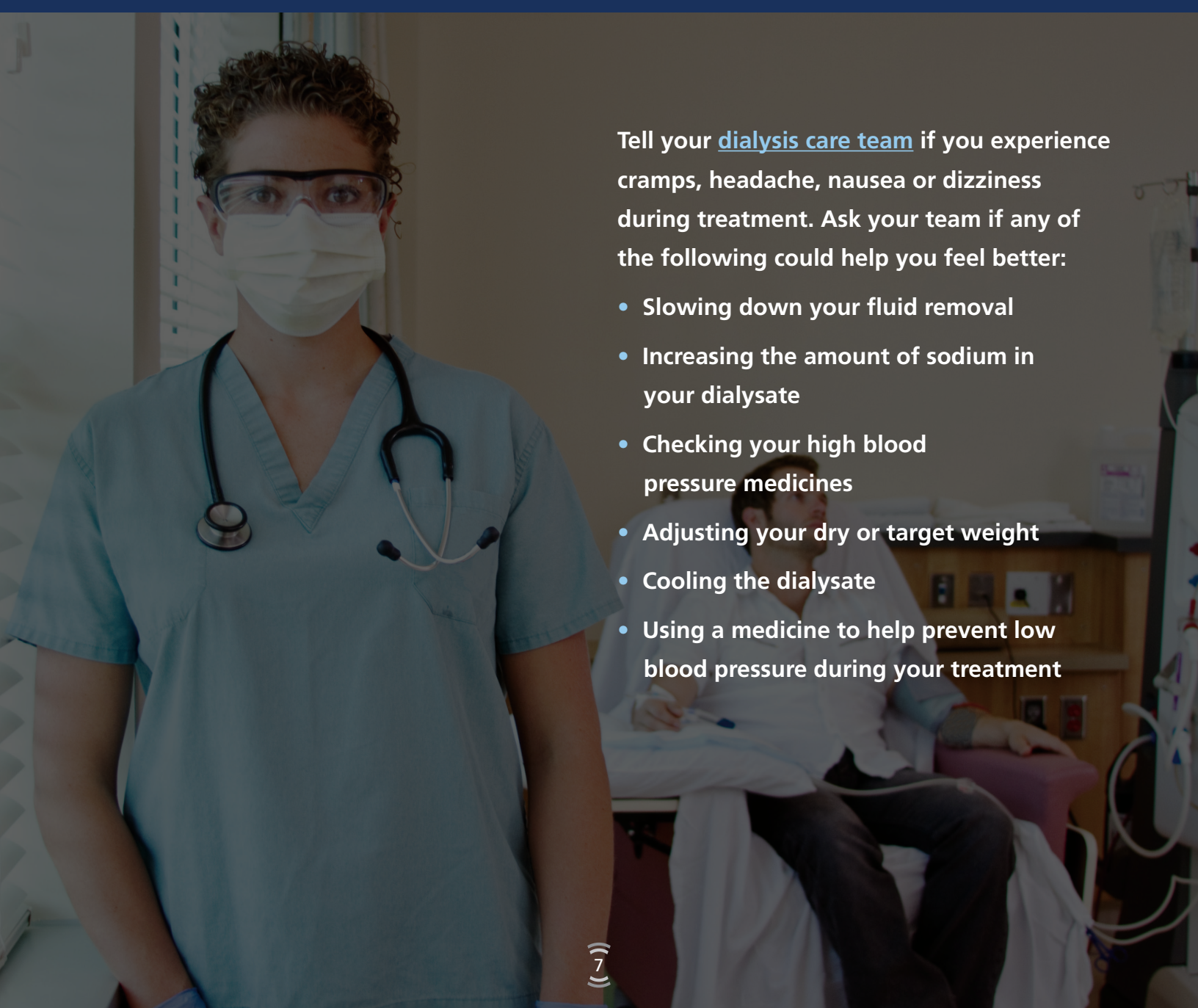
Graft: This is a connection between an artery and a vein made with a synthetic graft material. Grafts are usually ready in 3-6 weeks, but they can have more frequent rates of clotting than fistulas, so knowing your flows and following correct care techniques is key to keeping your graft healthy.

Fistula: This is an access connection made using a patient's own artery and vein. This is the preferred access method as it has a lower clotting rate, but creating a fistula can take from 1-4 months until it is ready to use.



You can review all of these with your doctor to learn more about each different type of access and to find out which kind your doctor feels is the best choice for your unique situation.

Needles are put into your fistula or graft at the beginning of treatment. Then, tubes will be connected from your access to the dialyzer. During hemodialysis, your blood and a solution called dialysate flow through the machine, but never touch. The hemodialysis machine mixes the dialysate solution, which is a combination of purified water, bicarbonate and an acidified solution. Any impurities in your blood are filtered into the dialysate. Any dialysate containing waste products leaves the machine and goes down the drain.



Tell your [dialysis care team](#) if you experience cramps, headache, nausea or dizziness during treatment. Ask your team if any of the following could help you feel better:

- Slowing down your fluid removal
- Increasing the amount of sodium in your dialysate
- Checking your high blood pressure medicines
- Adjusting your dry or target weight
- Cooling the dialysate
- Using a medicine to help prevent low blood pressure during your treatment

PATIENT TIP SHEET:

Caring for Your Access

FISTULAS AND GRAFTS

While you're less likely to have problems with infection if you have a fistula or graft, they can still become infected or develop problems with flow. And if you have a catheter, you face an even greater risk of infection. Keep your access free from infection and working properly by watching for these problems:

- Pain
- Swelling
- Fever
- Redness or pus around your access site
- Bleeding from the access site
- Coldness, weakness or numbness in your hand

If you notice any of these problems, contact your dialysis center or your care team right away.

In addition to keeping your access clean and monitoring it for signs of infection, you'll want to not put any excess pressure on the area. This can be done by:

- Not sleeping or resting on the arm or area of the body where you have the access
- Not carrying heavy packages or placing purses on the arm with the access
- Not wearing tight clothing or jewelry on your access area



CATHETERS

Venous or tunneled catheters raise your risk of infection or blood clots. Here's what you can do to keep the area healthy and functioning well:

- Wash your hands before you touch your catheter or the incision area.
- Keep the clamps on your catheter closed, unless it's in use.
- The dialysis staff will flush your catheter as often as your doctor recommends to help prevent blood clots.
- Change the dressing over your incision as often as your doctor recommends.
- Keep the area around your incision dry.
- Contact your doctor or dialysis center if you notice any signs of infection, which include pain, swelling, discharge, redness and fever.

CARING FOR YOUR ACCESS: DAY-TO-DAY TIPS

These tips can help you avoid infection and the development of blood clots.

Do:

- ✓ Wash your hands before and after touching your access.
- ✓ Ask your healthcare provider to show you how to check the thrill in your access. Once you've learned how to do this, check everyday. If the thrill decreases or isn't there, call your healthcare team right away.
- ✓ At each dialysis treatment, change where the needle enters your fistula or graft.

Do Not:

- ✗ Let anyone take blood pressure, place an IV or draw blood from your access arm or area.
- ✗ Let anyone draw blood from your tunneled central venous catheter.
- ✗ Use your access for anything but dialysis.
- ✗ Bump or cut your access.

PATIENT TIP SHEET:

How the HD03 Works

The HD03 monitor helps your dialysis care team keep you and your access healthy by measuring the flow of your access. In addition to monitoring the health of your access, the monitor measures delivered blood flow and cardiac output.

WHY SHOULD YOU CARE ABOUT YOUR ACCESS FLOW?

You may have heard the phrase “your access is your lifeline for a lifetime.” That’s because without a properly functioning access, you cannot have adequate dialysis. So, knowing your flow numbers can help alert you to a potential problem with your access that you or your dialysis team can quickly address.

Take dialysis patient Lori Clark, for example. She uses the data provided from the HD03 to not only track the health of her access, but to see if there’s anything she may be unwittingly doing that could be impacting it.

“When the numbers started going down, I knew something was wrong,” Lori said.

It turns out she was wearing a tight fitting jacket, and by removing the jacket, her number went back up.

“If the jacket’s not obviously that tight, a clot will build up in time,” Lori surmised. “And you won’t know where it came from. This is all guesswork for a patient because there’s no way to know for sure. Having the Transonic machine helps a lot. Otherwise there will be no basis for me to even guess anything. It’s helped me take better care of my access.”



My Vascular Access Record

[illegible]

Transonic's HD03 Monitor can help your clinic save time, money and even patient lives. Debbie Brouwer-Maier, RN, our Product Manager as well as an experienced vascular access coordinator, is ready to answer any questions you have.

Schedule a time to talk to Debbie today.





Transonic Systems Inc. is a global manufacturer of innovative biomedical measurement equipment. Founded in 1983, Transonic sells “gold standard” transit-time ultrasound Flowmeters and Monitors for surgical, hemodialysis, pediatric critical care, perfusion, interventional radiology and research applications. Transonic® also provides pressure and pressure volume systems, laser Doppler Flowmeters and telemetry systems.

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