



### **What is a dialysis machine?**

During dialysis, your blood is cleaned using a fluid called dialysate, or “bath.” Wastes and fluid from your blood go into the bath and are drained away. The **dialysis machine** controls the flow of the blood and the bath.

The dialysis machine has two systems — the *extracorporeal* (outside the body) circuit and the dialysate delivery system. The extracorporeal circuit is the tubing, blood pump, *heparin* (blood thinner) pump, kidney, and monitors for blood flow, blood pressure, and air bubbles.

The dialysate delivery system of the machine mixes the bath with purified water and checks to be sure it is safe.

This is one type of hemodialysis machine you may see in your center.

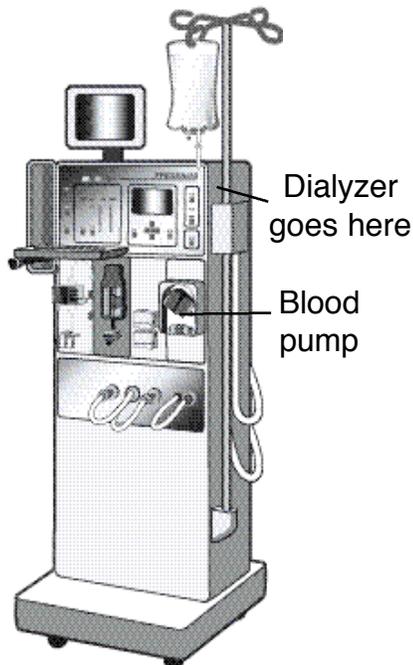


Illustration from Fresenius Medical Care, North America, 1998

### **How much blood is outside my body?**

Depending on the machine and the dialyzer, no more than two cups (one pint) of blood are outside your body during dialysis.

### **What is an air detector?**

Air in your bloodstream is a medical emergency. The air detector checks the blood in the tubing to be sure that air does not get into your bloodstream. The air detector is set before each treatment.

### **What is my blood flow rate?**

Your blood flow rate is how fast the blood pump moves your blood through the machine. Your doctor prescribes your blood flow rate. Ask what it is. Check to be sure your blood flow rate is right at each treatment.

### **What is my dialysate concentration?**

Your dialysate, or bath, is prescribed by your doctor. It must have the right chemicals, or it will not clean your blood well enough. Sometimes the wrong ingredients can even hurt you.

Learn what the right concentrate is for you, and check it at each treatment.

## How can I have a safe and comfortable dialysis treatment?

<b>Problem</b>	<b>How can I prevent it?</b>	<b>What should I ask?</b>
I'm worried about how safe dialysis is.	<ul style="list-style-type: none"> <li>• Check the machine at times during your treatment and learn how to read your blood flow rate, bath temperature, blood pressure, etc.</li> <li>• Ask the team what each machine alarm means.</li> </ul>	<ul style="list-style-type: none"> <li>• Which part is the blood pump?</li> <li>• How can I read the bath temperature?</li> <li>• Where is the air detector?</li> <li>• Where does the machine show my blood pressure?</li> </ul>
I feel cold when I'm on dialysis.	<ul style="list-style-type: none"> <li>• Dress in layers. Bring a hat and gloves if you need to (but staff must always be able to see your access).</li> <li>• Ask if you can have a blanket during dialysis.</li> <li>• Use an exercise bike during your treatment.</li> <li>• See if the temperature of the bath can be safely turned up a bit.</li> </ul>	<ul style="list-style-type: none"> <li>• Can this room be made warmer?</li> <li>• What can I bring with me to treatment?</li> <li>• Does this center have an exercise bike I can use during treatment? How can I get my doctor's okay to use it?</li> </ul>
My blood pressure drops during dialysis.	<ul style="list-style-type: none"> <li>• Don't gain too much fluid.</li> <li>• Learn what low blood pressure feels like: You may feel faint, too warm, anxious, have spots in your vision, be sweaty, or have cold, clammy skin.</li> <li>• Tell staff if you feel your blood pressure dropping.</li> </ul>	<ul style="list-style-type: none"> <li>• I'm feeling funny—what is my blood pressure right now?</li> <li>• How much fluid is being removed? How much was prescribed to be removed?</li> </ul>
I get muscle cramps during dialysis.	<ul style="list-style-type: none"> <li>• Don't gain too much fluid.</li> <li>• Stretch your legs and feet in the dialysis chair.</li> <li>• Massage the area.</li> <li>• Ask for a warm towel or heating pad for the cramping muscle.</li> </ul>	<ul style="list-style-type: none"> <li>• Should my dry weight be adjusted?</li> <li>• Are my electrolyte levels okay?</li> <li>• Can I have something to help my cramps?</li> </ul>



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