Q: How does dialysis clean my blood?

A: Dialysis cleans your blood by passing it through a filter. If you do peritoneal dialysis (PD), the filter is the lining of your abdomen (your peritoneum). If you do hemodialysis, the filter is made of plastic.

Your blood is on one side of the filter. A fluid called dialysate is on the other side. Wastes and fluid in your blood pass through the filter into the dialysate. Larger cells your body needs—like red blood cells—stay behind.

For PD, you put dialysate into your peritoneum through a catheter (tube). Your peritoneum has lots of small blood vessels. In a few hours, wastes and extra fluid move through the blood vessels and into the dialysate. You drain used dialysate out through the catheter and throw it away.

For hemodialysis, two needles are put into your access. One needle connects to a tube that brings your blood to a blood pump. The pump pushes your blood through a filter called a dialyzer (artificial kidney).

Inside the dialyzer are millions of hollow fibers. Each fiber has tiny holes in its walls. Your blood flows through the inside of the fibers and dialysate bathes the outside. Wastes and fluid go through the holes and into the dialysate.

Your cleaned blood comes back to your access through the other needle. It takes a few hours for all of your blood to be cleaned. The used dialysate is thrown away.

What I can do to learn more about how dialysis works:

- Ask the staff to show me a dialyzer and tell me where the blood and dialysate go.
- Ask my nurse or technician to show me how my dialysis machine works. Where is the blood pump? What do the alarms mean?
- Ask about the chemicals that make up my dialysate.
- Visit module 2 of Kidney School™: Treatment Options for Kidney Failure at www.kidneyschool.org to learn more.
- Visit Home Dialysis Central at www.homedialysis.org to learn more.