



Save a Life - What You Need to Know About

Emergency Preparedness for Individuals with Kidney Disease

Kidney failure is a life threatening condition. As of March 2006, there were over 448,500 individuals with kidney failure in the U.S. Patients with kidney failure will die if they do not get either regular repeated dialysis treatments or medications to prevent rejection of a kidney transplant. Subsequent to Hurricanes Katrina and Rita, the community of individuals, facilities and patients involved in kidney disease recognized the need to improve planning and preparation for any disaster. While each group has a responsibility in these actions, federal, regional and state agencies are critical in these efforts.

What Dialysis Patients Need in Disasters

Repeated dialysis treatment: Being without dialysis as few as three or four days could result in illness or even death for these patients. Dialysis requires:

- Space to do the treatment;
- Electricity to run the equipment;
- Dialysis machines;
- Potable water for use in the treatment (each treatment requires a minimum of ~100 gallons of pressurized water);
- Water treatment equipment (Carbon filtration and either reverse osmosis or deionization);
- Supplies (dialyzers, blood lines, saline, medications, etc.);
- Personnel qualified to perform dialysis; and
- Medical records including the prescription for dialysis.

How you can help:

- Include dialysis clinics in the list of high priority locations to have power, water and phone services restored if these services are interrupted.
- Assist in providing emergency generators, fuel, and tanker water to dialysis clinics if these are needed.
- Facilitate delivery of supplies to dialysis clinics.
- Include dialysis personnel on lists for priority access to gasoline if supplies are limited.
- Recognize security assistance may be needed to protect emergency generators and fuel used to run the dialysis equipment.
- Encourage early evacuation of kidney patients with appropriate family members, as warranted. They need to get to a safe place near available dialysis services as soon as possible.
- Allow patients and staff with appropriate identification to cross roadblocks and travel during curfews to get to and from dialysis clinics.
- Work with dialysis providers, state agencies and the End Stage Renal Disease Network organizations (www.esrdnetworks.org) to provide alternate sites for treatment if dialysis clinic operations are impacted by the disaster.
- When individuals seek shelter in disasters, routinely screen for kidney failure. Add: "Do you require dialysis?" and "Do you have a transplanted organ?" to the screening tools in use.
- Recognize that individuals with failed kidneys will need to limit fluid intake and use caution in consuming foods high in salt and potassium (such as MREs) during periods of limited access to dialysis: public service announcements may need to be edited to recognize these restrictions.
- Ask shelters to group individuals needing dialysis in a specific area of the shelter, and to consider arrangements for transportation to dialysis in transferring these individuals to another shelter.
- Designate a few shelters as the "go to" locations for dialysis patients to make transportation to dialysis treatment easier. These shelters can be used for other evacuees as well.



Basic Facts about Kidney Disease and Treatment

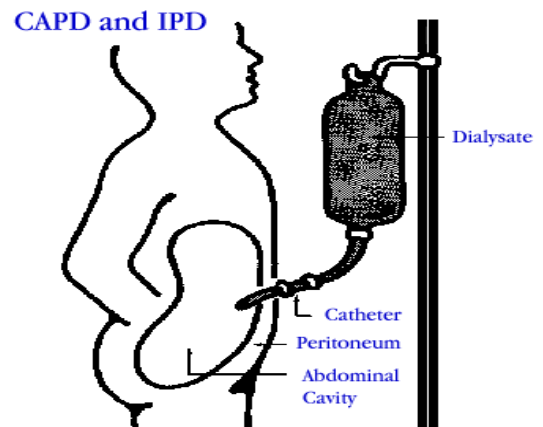
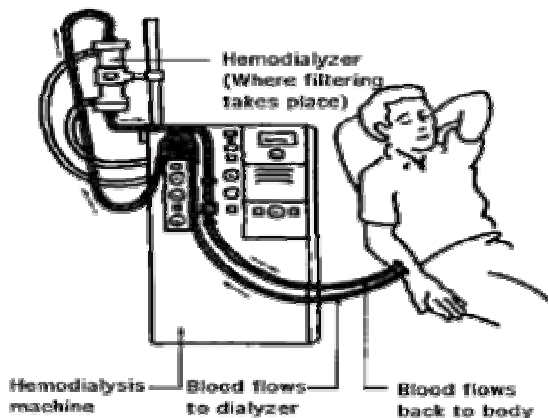
Here are some basic facts about kidney disease, how it is treated, and what you may need to do to help kidney patients access life-saving/sustaining treatments, which require electricity, safe water, specialized equipment and specially trained personnel.

Kidneys perform crucial functions. When kidneys fail, the blood must be regularly cleansed of toxins and extra fluids by using either an artificial kidney (*hemodialysis*), by introducing a cleansing solution into the abdomen (*peritoneal dialysis*), or by using a healthy, donated kidney to replace the patient's failed kidney function (*kidney transplant*). If patients do not receive dialysis within 3 days they will become critically ill and may potentially die.

Many patients suffer kidney failure due to either diabetes or high blood pressure (hypertension). Both of these conditions may also require special attention and available medications in the event of disasters.

HEMODIALYSIS (HD): This treatment involves cleaning the patient's blood of harmful toxins and excess fluids using an artificial kidney (dialyzer) and a hemodialysis machine. Treatment requires specially trained personnel, electricity, and safe water. Hemodialysis must be done at least three times a week, for about 3 to 4 hours each time. The public water supply can be used for dialysis, but the water must be specially treated with electrically operated equipment to remove substances (such as chlorine, aluminum and fluoride) that would harm patients during dialysis. Most dialysis clinics do not have emergency generators, so restoring electricity will be critical. Those dialysis clinics with emergency generators would need a resupply of fuel should the emergency situation last longer than one day. It takes more time and resources to set up temporary units than to restore existing units, if those units are not severely damaged. If dialysis cannot be provided in an outpatient setting, kidney patients will overload those hospitals that provide dialysis, [impair access to patients needing hospital care](#) and present a greater challenge in areas where the hospitals that do not provide dialysis.

More patients each year choose to do their own treatments at home. Should a disaster affect a home dialysis patient's residence, making restoration of services (water and electricity) a high priority will restore the patient's ability to perform life sustaining treatment. Home patients have been encouraged to notify their utility suppliers about their status as home dialysis patients. In emergencies of extended duration, these patients would need deliveries of dialysis supplies.





PERITONEAL DIALYSIS (PD): Peritoneal dialysis uses the patient's peritoneal membrane, which surrounds the intestines, to act as a filter. A tube (catheter) is placed into the peritoneal cavity and then a special solution (dialysate) flows through the catheter into the abdomen, where harmful toxins and excess fluids move from the blood to the dialysate. The solution is then drained out and discarded. Done at home, the treatments are continuous, with 4-6 exchanges of fluid being done daily. While some PD techniques use machines and electricity, in a disaster situation, these patients would use manual techniques that do not require electricity. They would need replenishment of supplies and an environment that protects them from infection. As with hemodialysis patients, being without treatment would lead to illness and death for these patients.

TRANSPLANT: Kidneys for transplant can come from either deceased or living donors. Patients who have received a transplant must have special drugs to prevent rejection of the kidney and avoid exposure to infections (i.e., those that could be spread by crowds in a shelter) since the drugs they take to prevent transplant rejection also diminish the body's ability to fight infections.

*Thank you for your time and interest.
We look forward to working with you and your agency.*