

Department of Nephrology  
**Center for Dialysis**

The Center for Dialysis provides renal replacement therapy to meet the needs of patients suffering from severe kidney failure. Innovative use of the latest technologies allows Cleveland Clinic to offer accessible, comfortable dialysis care with significantly better outcomes.

### Areas of Focus

ICU Nephrology | In-Hospital Dialysis | Outpatient Ohio Renal Care Dialysis Units (In-Center Hemodialysis, Home Peritoneal Dialysis, Home Hemodialysis, Nocturnal Hemodialysis)

For more than 60 years, Cleveland Clinic has delivered a range of dialysis therapies that sustain life in patients with severe renal failure. Individuals with end-stage renal disease (ESRD) need dialysis or a kidney transplant to survive. When a kidney transplant is not available immediately or not possible, dialysis can replace kidney function. The Cleveland Clinic Center for Dialysis employs a multidisciplinary team of nephrologists, nurses, technicians, social workers and dietitians to ensure optimal outcomes for dialysis patients.

#### ICU Nephrology

The ICU Nephrology service provides renal replacement therapy (RRT) for one of the busiest acute kidney injury programs in the world. The expertise of our nephrology staff is a critical component in the achievement of outstanding surgical outcomes in critically ill patients with cardiovascular disease, multi-organ transplantation, congestive heart failure, multi-organ failure and medical critical care cases. The ICU nephrology team has a long tradition of innovation and quality dialysis that has resulted in the highest quality of ICU RRT.

#### In-Hospital Dialysis Unit

Our 21-bed state-of-the-art dialysis facility represents one of the most modernized hospital dialysis units in the United States. Focused on optimal dialysis delivery, automated electronic treatment data monitoring/analysis and the provision of high-quality dialysis water through the use of innovative water purification systems, this unit supports the entire in-hospital population of renal failure patients. It also aids in the evaluation of patients who are experiencing difficulty with standard dialysis provided elsewhere. We continue to examine those specific factors that may impact patient outcomes and continually strive for solutions that improve survival for hospitalized kidney failure patients.

#### Hemodialysis

Hemodialysis requires a minor surgical procedure in the arm to create an access for needles that connect to the dialysis machine. The machine acts as a kidney that pumps blood through a filter to remove waste products and returns clean blood to the bloodstream.

- Hemodialysis services are available at Cleveland Clinic regional outpatient facilities.
- Nurse practitioners with advanced training in the care of patients with kidney failure staff our units; doctors from other hospital systems, along with local nephrologists, also care for their patients in our units.
- Cleveland Clinic nephrologists work with Cleveland Clinic cardiac and other specialists when necessary to expand care for our patients beyond dialysis.
- We use the most advanced dialysis machines on the market; advanced features measure therapy given during dialysis and assess performance.
- Patients see the same doctors and nurse practitioners at each visit, and we get to know patients on an individual basis.

Cleveland Clinic's mortality rate for patients with end-stage renal disease is 33 percent lower than the national average.

### Peritoneal Dialysis

Peritoneal dialysis gives patients more independence because the procedure can be performed at home. A small surgical procedure places a dialysis catheter into the abdomen.

A solution called dialysate is delivered through the catheter, filling the abdomen cavity (peritoneal membrane). It remains in the abdomen for two to six hours, while wastes and extra fluid are removed. The fluid is then drained from the catheter and discarded.

- Performed during the day (ambulatory) or with a cycling machine overnight (cycler) during sleep.
- Appropriate for self-motivated individuals who have not undergone prior abdominal surgery.
- Cleveland Clinic's peritoneal dialysis team is available 24/7 for patient support.

### Outpatient Dialysis

Through a strategic partnership, Cleveland Clinic, MetroHealth System and Fresenius Medical Care offer outpatient dialysis serving all of Northeast Ohio through the Ohio Renal Care Group. The patient care staff and administrative professional leadership provide patients in need of chronic dialysis with multiple options for either in-center or home dialysis. Each of the Northeast Ohio locations is managed by a Cleveland Clinic medical director and a multidisciplinary team of nurse practitioners, nurses, technicians, social workers and dietitians. Patients can count on getting quality care in a convenient, comfortable setting.

- Committees of patients and staff meet regularly to ensure tailored patient care.
- A staff member is dedicated to developing innovative programs so patients can use time spent on dialysis learning a new skill or participating in a group activity.
- Patients receive their care from the same doctors and nurse practitioners for each treatment.

### Innovative Solutions

Kidney failure is often associated with other medical issues, such as heart disease, other cardiovascular disease or cancer. Patients with a history of kidney problems who are on dialysis and undergo major surgery are at a special risk for complications. That's why the Center for Dialysis works closely with other Cleveland Clinic specialties, addressing patients' kidney failure prior to surgery and taking appropriate steps to ensure the best possible outcomes.



The Center for Dialysis offers long-term services to meet the different needs of patients. Chronic therapies, including hemodialysis and peritoneal dialysis, are a lifeline supporting patients until kidney transplant. All options for care of long-term dialysis patients are provided at locations throughout Northeast Ohio. At-home dialysis is also available after patient training, allowing individuals more freedom and control over their therapy.

For an appointment with a nephrologist,

**call 216.444.6771**

For more information, visit [clevelandclinic.org/nephrology](http://clevelandclinic.org/nephrology).