
Kidney disease and rehabilitation

As part of its Geriatric Rehabilitation Program, Toronto Rehab offers specialized rehabilitation and dialysis treatment to seniors with kidney disease. Toronto Rehab's dialysis service was the first in Canada to be launched in a rehabilitation setting.

What is kidney disease?

- Kidney disease describes a variety of diseases that attack the kidney's tiny filters (nephrons), which remove waste. When the filters are damaged or don't work properly, toxic waste and fluids then accumulate in the body, causing a variety of health issues.
- There is no cure for kidney disease, but management can slow or prevent progression. Not everyone with kidney disease will progress to end-stage renal disease, where kidneys are functioning at less than 10 to 20% and dialysis or transplantation is needed.
- Dialysis has been used as an effective treatment for kidney failure for more than 45 years. Hemodialysis filters the blood through an artificial kidney machine; while peritoneal dialysis uses tissues inside the patient's abdomen as a filter.
- Kidney disease can significantly reduce quality of life and exerts major costs on the Canadian health care system. For many people, a diagnosis of kidney disease means daily treatment for the rest of their lives.

Facts about kidney disease

- An estimated two million Canadians (one in 15) have kidney disease or are at risk.
- Many people with kidney disease don't realize they have it. Kidney disease usually progresses silently, often destroying most function before causing any symptoms.
- People with diabetes, hypertension or cardiovascular disease, the elderly and individuals with a family history are at greatest risk. One in five Canadians age 65 or older has kidney disease.
- Each day, an average of 14 Canadians learn that their kidneys have failed. If kidney failure is not treated, people die within days or weeks.
- The average annual cost of dialysis is more than \$60,000/person. More than 20,000 Canadians are currently on dialysis, totaling an annual cost to the health care system of more than \$1.2 billion, excluding physician consults, medication and transportation costs.
- As the population ages, the need for dialysis will continue to rise in Canada, as will the cost to the health care system. Rehabilitation is a vital part of Canada's solution to this challenge.

Toronto Rehab's expert kidney disease rehabilitation

- At Toronto Rehab, rehabilitation is the interprofessional process of helping people who experience disabling injury, illness and conditions associated with aging to regain the skills, abilities, confidence and independence they need to live their lives to the fullest.

- Rehabilitation can improve quality of life for people who have kidney disease or are at risk of developing it by helping them learn how to make lifestyle choices and changes that can slow and even prevent the disease's progression. With proper rehabilitation, people may go many years without needing other forms of treatment.
- Rehabilitation treatment for kidney disease often involves an individualized combination of nutrition and exercise planning, monitoring of blood pressure, glucose and kidney function levels and, depending on the severity of disease, hemodialysis.
- To facilitate its specialized rehabilitation and dialysis for seniors with kidney disease, Toronto Rehab partners with University Health Network (UHN) to provide hemodialysis two hours a day, six days a week, instead of the more common four hours a day, three days a week. This difference leaves patients with more time and energy to participate in daily rehabilitation therapy.

Pushing the frontiers of kidney disease rehabilitation research

Toronto Rehab conducts high-impact research that leads to advances in knowledge, treatment and technology and has a valuable impact on people affected by disability and their caregivers. Our rehabilitation research program is one of the largest and most diverse in North America. Current kidney disease-related research projects include:

- **Linking kidney failure and sleep apnea** – Doctors have long been puzzled by the high prevalence of obstructive sleep apnea among people with kidney failure. Senior scientist Dr. Douglas Bradley thought the higher prevalence among people with kidney failure, as well as those with heart failure, could be linked to the excessive build-up of fluid in their body tissues. He found that, indeed, fluid is displaced from the legs to the head and neck during sleep, narrowing the throat and increasing the resistance to airflow by more than 100 per cent, making it difficult to breathe. Sleep apnea is a treatable condition characterized by pauses in breathing during sleep.
- **Complications of frailty** – Drs. Gary Naglie and Vanita Jassal conducted a study that confirmed that many elderly hemodialysis patients are frail and do little physical activity. This frailty, combined with the fact that many patients have other age-related conditions such as Alzheimer's disease and diabetes, makes them especially difficult to treat. This speaks to the great need for interdisciplinary rehabilitation, which can deal with multiple and complex health factors.

For more information

Marketing and Communications, 416-597-3422, ext. 3837, communications@torontorehab.on.ca