

Independent Dialysis: Is it an option for you?



Improved quality of life

Fewer symptoms during and between dialysis

Fewer medications

More free time

Less days in hospital



BC Renal Agency

An agency of the Provincial Health Services Authority

If you receive hemodialysis at a hospital or community unit – or are starting dialysis soon – this booklet is for you.

It provides important information about independent dialysis options that may offer you added health and lifestyle benefits.

In the words of patients on independent dialysis:

“Sometimes I forget I have kidney disease.”

“[[It] has given me the freedom to eat or drink whatever I want.”

“I no longer experience nausea in between treatments.”

“There’s no more daily medication regime to follow.”

Read on to learn more about the expanding independent dialysis program in BC.

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The BC Provincial Renal Agency, an agency of the Provincial Health Services Authority, plans and coordinates the care of people with kidney disease throughout the province to ensure equitable access to high quality care.

What is independent dialysis?

Independent dialysis refers to dialysis options that include:

- peritoneal dialysis;
- home-based hemodialysis; and
- “self-care” hemodialysis in a hospital or community unit (with patients managing more of their own care).

Within these options, treatment programs can be specially designed for each patient. Most patients are able to dialyze more often or for longer periods of time, which may result in better health.

(It is important to note that not all patients are suited to independent dialysis methods, either for personal or medical reasons.)

What’s the difference between hemodialysis and peritoneal dialysis?

With hemodialysis, the patient’s blood is passed through an artificial kidney machine to clean it. Currently, most hemodialysis patients travel to a hospital or community unit three times a week for treatments. However, hemodialysis can be done successfully at home.

Peritoneal dialysis uses a filtration process similar to hemodialysis, but the blood is cleaned inside the body rather than in a machine. In most cases, peritoneal dialysis can be performed without help at home or at work.

Peritoneal dialysis

There are three variations of peritoneal dialysis. With each, dialysis fluid is added to the peritoneal cavity (located in the abdomen) to clean the blood. The only difference between types of peritoneal dialysis is when the fluid is drained and replaced:

- **Continuous ambulatory peritoneal dialysis** – fluid is replaced 4-5 times per day.
- **Assisted continuous ambulatory peritoneal dialysis** – simple equipment is used for an extra fluid exchange during sleep.
- **Continuous cycling peritoneal dialysis** – a machine exchanges fluid during sleep; fluid is also left in the peritoneal cavity during the day and drained at night.

A special test (called PET) determines which type is best for a specific patient.

“Well, here it is three years later, and I’m healthy. I have a happy, full life and I feel great. I have kidney disease and I’m on dialysis. But it’s a minor thing in my life. I hardly think about it in the course of the day.”

[peritoneal dialysis patient]

Home hemodialysis options

In BC, there are three home-based alternatives:

- **Daily nocturnal hemodialysis** – dialyze in bed 6-10 hours per night, 5-7 nights per week
- **Short daily hemodialysis** – dialyze 2-3 hours, 5-6 days per week
- **Conventional hemodialysis** – dialyze 3-4 times per week or on alternate days, usually for four hours.

Supervised self-care hemodialysis

With this last option, patients play an active role in hemodialysis treatments done at the renal unit. Patients are taught how to set up their dialysis machines, monitor and adjust their dialysis treatments, and assist in disconnection and clean up. They are also taught about their bloodwork, diet and medications. Some patients learn to needle themselves.

Increased involvement in dialysis therapy may lead to an improved sense of well being and self confidence. As well, it may increase the flexibility of dialysis times and length of treatments. This would allow patients to receive more dialysis.

A provincial committee is working with kidney care teams across BC to improve schedule options for supervised self-care patients. As the independent dialysis program evolves, the goal is to offer even more choices.

What are the benefits and drawbacks of independent dialysis?

Peritoneal dialysis

The benefits of peritoneal dialysis include:

- an independent lifestyle and flexible schedule;
- less stress on the body because dialysis is done daily rather than several times a week;
- no needles;
- a liberal diet;
- a strong support network of clinic nurses, dieticians, social workers and nephrologists;
- regular clinic visits only every 1-3 months (or as needed); and
- ease of traveling (patients can arrange for transportation of supplies).

Potential drawbacks of peritoneal dialysis are few, but do include:

- a permanent catheter in the abdomen;

“This dialysis has certainly had a positive impact on my family as well as me. We do a lot of fishing, snowmobiling, boating and are involved with our sons’ hockey and soccer teams.”

[short daily hemodialysis patient]

- possibility of infection of the peritoneal cavity (although easily treated with antibiotics in most cases);
- dialyzing every day; and
- responsibility for ordering and storing supplies (note: the cost of supplies is covered by provincial medical insurance).

Home and self-care hemodialysis

In recent years, research has shown that home and self-care hemodialysis may provide a number of health and lifestyle benefits. Dialysis can be done either more often or for longer periods of time than in a facility. As a result, patients receive a greater dose of treatment over the course of a week. In essence, the dialysis treatment is more like the function of the kidneys.

Some of the benefits may include:

- an improved quality of life compared to conventional hemodialysis (as more frequent or longer dialysis treatments result in less build up of fluid and waste material in the body);
- reduction in some medication usage (some patients reduce or eliminate the use of blood pressure pills and phosphate binders such as Tums®; some are able to reduce injections for correction of anemia);
- a more liberal diet (especially with increased dialysis time);
- reduction or elimination of symptoms experienced on conventional hemodialysis, such as cramps and low blood pressure;
- fewer complications that require hospital stays; and

- a more flexible schedule (particularly for home-based patients who don't have to travel to the dialysis unit three times per week).

Most patients feel the benefits of home and self-care hemodialysis outweigh the drawbacks. They feel more involved in their care and have an improved sense of control and independence. However, some things to consider are:

- The initial time commitment for training and regular visits to the medical team.
- The need for a good vascular access and ongoing monitoring of the fistula, graft or catheter.
- Patients are responsible for a number of tasks, such as setting up, monitoring and adjusting the machine during treatments, and cleaning up afterwards. Home hemodialysis and some self-care hemodialysis patients also handle the needles. As well, home-based patients must order and maintain their supplies. (The cost of supplies is covered by provincial medical insurance.)

“While on conventional dialysis, most of the time I felt very drained and sick. [Nocturnal hemodialysis] has helped me so much that sometimes I forget I have kidney disease.”

[nocturnal hemodialysis patient]

What are the requirements for independent dialysis?

The most important factor is willingness. If patients are open to learning and have a desire to be more involved in their care, there are few reasons why they can't pursue one of these options.

Having said that, there are some basic requirements:

Health and medical considerations

In terms of peritoneal dialysis, individuals who have had multiple abdominal surgeries may not be good candidates.

With hemodialysis, it's important for patients and/or their helpers to be able to hear and see the machine, as well as to easily button their shirts. The last skill indicates an ability to handle the equipment and needles. Also essential is a stable vascular access (fistula, graft or catheter).

A helper

Patients can do much of the work involved with hemodialysis. However, some home hemodialysis programs ask that a helper be present during treatments. While this is not essential, it is helpful, particularly for patients on conventional home hemodialysis (dialysis three or four times per week for four hours at a time).

A helper is someone who has been trained, along with the patient, to do hemodialysis. In most cases, the helper is a spouse, a significant other or parent. It can, however, be someone else the patient chooses.

Check with your kidney care team to see if this is a requirement in your area.

Space, electricity and water

Peritoneal dialysis patients must have enough space in their home to store supplies (in a location where they won't freeze).

The requirements for home hemodialysis are more extensive:

- Two electrical outlets
- Space for the hemodialysis machine, the water treatment machine and to store the required supplies (also in a location where they won't freeze). Generally a room no smaller than 10 x 14 feet is suggested. Many patients use their bedroom or a spare room to dialyze in, and store supplies in a shed or garage.
- Since many gallons of water are used during treatment, a reliable sewer or septic system is needed. In some cases, special plumbing connections and electrical outlets need to be installed. (A home training team will help determine what is required.)

"I started daily dialysis treatments after four years of conventional dialysis. Gone were the frequent disabling headaches and severe cramping... I no longer experience any nausea in between treatments and in short, feel well for the first time in several years."

[short daily hemodialysis patient]

- A telephone should be within reach for emergencies or if the patient needs to call for advice.

Note: Patients who rent their home or apartment may have additional issues to consider.

Are there any costs?

Patients do not incur any additional costs for peritoneal dialysis and supervised self-care hemodialysis.

For home hemodialysis, the Renal Program pays for the machine and its maintenance, the dialysis supplies and equipment, and renovations (if needed) to provide water, drains and power outlets.

Because of the unique electrical and water needs of hemodialysis, patients may have to cover the costs of:

- additional electrical power;
- additional water expenses (if metered); and
- homeowner's insurance (patients are encouraged to purchase insurance for the unlikely event of water leaks).

Note: For individuals in a position to pay income taxes, a portion of these expenses are tax deductible as medical expenses. As well, patients can claim a portion of the cost of keeping the dialysis machine in their homes.

In terms of cost savings, home-based patients do not have the expense of traveling to and from the dialysis unit three times per week.

What about training?

Peritoneal dialysis

Most peritoneal dialysis patients are able to dialyze on their own after a fairly short training period. Some programs train patients for several hours a day over a period of about three weeks. Others train patients in several days, with full-day training sessions.

Home and self-care hemodialysis

For independent hemodialysis, the patient and helper typically receive supervised training at the dialysis unit three times per week (and some training on non-dialysis days) until both feel confident. Some patients reach this level in four to eight weeks. For others, it takes three to four months.

The training schedule is determined by the training team and the patient.

“One very important and energizing thing about nocturnal dialysis is the feeling of having control over your own health care. It creates a feeling of being independent because you take care of “business” during the night and your days are your own to spend as you see fit.”

[Nocturnal hemodialysis patient]

What support is available over time?

Regular clinic visits with the doctor and kidney care team are an essential part of all types of independent dialysis. How often they take place depends on each patient's medical condition. A stable patient usually has clinic visits every two to three months.

Most patients have medical or technical questions from time to time, especially during the first few months of treatment. Members of the kidney care team are available by telephone or pager.

Questions?

To find out more about all of the independent dialysis options in your area, contact your nephrologist or kidney care team. They can guide you in making the right choice for you and your family.

Contacts in your area:

Name:

Phone:

Independent dialysis options at a glance

	Positives	Drawbacks/Costs	Must Have's
Peritoneal dialysis	<ul style="list-style-type: none"> • Flexible schedule • Independence • Daily dialysis = less stress on body • No needles or fistula operations • Liberal diet • Support network • Ease of traveling 	<ul style="list-style-type: none"> • Catheter in stomach • Ordering, storing supplies • Occasional infections (easily treated) 	<ul style="list-style-type: none"> • Space to store supplies
Home hemodialysis	<ul style="list-style-type: none"> • Better quality of life • Flexible schedule • Fewer medications (in some cases) • More liberal diet • Reduced symptoms • Fewer hospital stays 	<ul style="list-style-type: none"> • Setting up, monitoring, cleaning machine • Ordering, storing supplies • Handling needles • Possible costs: additional electrical power, water expenses (if metered), and homeowner's insurance (not mandatory) 	<ul style="list-style-type: none"> • Ability to hear/see machine and button shirt • Space for machine, supplies • Reliable sewer/septic system • Telephone in room • 2 electrical outlets • Helper (in some cases) • Well functioning vascular access
Self care hemodialysis	<ul style="list-style-type: none"> • Greater role in care and knowledge of condition • Improved quality of life • Support of on-site kidney care team • More flexible schedule options (will improve as program grows) with benefits similar to home hemodialysis 	<ul style="list-style-type: none"> • Travel to renal unit • Setting up, monitoring, cleaning machine • Handling needles (not all patients) 	<ul style="list-style-type: none"> • Ability to hear/see machine and button shirt • Well functioning vascular access



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