NxSTAGE®
Home Therapies

NxStage® System One™

LIVE

HEALTHIER • BETTER • LONGER

with more frequent home hemodialysis

"NxStage has allowed me to live my life on my terms… I can't put a price on the quality of life and health benefits I've experienced."—Alphonso

Alphonso has been using more frequent home hemodialysis with NxStage since 2010.

Introduction to more frequent home hemodialysis

Home hemodialysis is a different way of doing hemodialysis. Instead of going to a dialysis center three times a week for treatments that last about four hours, home hemodialysis with the NxStage System One offers the convenience of treatments in the comfort of your home. Home hemodialysis treatments are generally shorter treatments (about 2½ to 3 hours) performed more often (typically five or six days per week).

With more frequent treatments, the fluctuations in toxin and water build-up between treatments are decreased, which may reduce some of the side effects many people experience.

This booklet explains important information on how more frequent home hemodialysis with the NxStage System One may help you live healthier, feel better, and take control of your life.

The benefits of more frequent home hemodialysis reported here may not be experienced by everyone. More frequent home hemodialysis also has certain risks. In addition to the risk associated with hemodialysis treatments in any environment, there are also certain risks unique to the home. If you think more frequent home hemodialysis may be right for you, we encourage you to talk to your doctor. If you and your doctor decide NxStage is right for you, you and a care partner, typically a family member or friend, are trained by a dialysis center nurse on the NxStage System One.

LIVE
HEALTHIER

More energy

Many people on dialysis are unable to work, go to school, contribute to their household, or enjoy activities they love, either because they do not feel well enough or they cannot fit work and other activities into their in-center dialysis schedules. However, those who switch from three times a week in-center dialysis treatments to more frequent home hemodialysis have reported having **more energy** to do the things they enjoy. Studies also show more frequent treatment may improve **vitality** and overall **quality of life**.[1-4]

"Before I began dialysis with NxStage, I got tired walking around Home Depot with my husband. Now, I can keep up. I even have energy to hit the exercise bike at home."—Denise

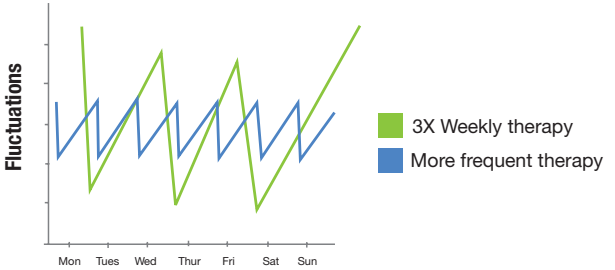
Denise has been using more frequent home hemodialysis with NxStage since 2009.

Less stress on your heart

Up to 75 percent of people with chronic kidney disease suffer from a heart complication called left ventricular hypertrophy (LVH).[5,6] LVH occurs when the muscle of the main pumping chamber in the heart grows too thick. In some cases, this can lead to heart failure and even death.

One of the main causes of LVH is fluid build-up. Many people on in-center dialysis have fluid limits of one liter (approximately 32 fluid ounces) per day. In the two or three days between standard in-center dialysis treatments, even a compliant patient can have an average of three liters of extra fluid built up. Having fluid levels “yo-yo” up and down can cause stress on the heart.[7]

With more frequent home hemodialysis with the NxStage System One, treatments are typically done five or six times a week, instead of the standard three times a week in-center dialysis schedule. This means there is less time for fluid to build up between treatments, and less fluid to be taken out at each treatment.[7,8] More frequent treatments means fewer ups and downs in fluid levels, which studies have shown may reduce stress on the heart.



Better blood pressure control with fewer medications

Did you know? More frequent hemodialysis may help control your blood pressure and reduce your need for blood pressure medications.[9,10]

One of the kidney's functions is to help control blood pressure by managing the amount of fluid inside the body and blood vessels. Extra fluid which builds up between dialysis sessions can increase your blood pressure. In fact, most people on dialysis have high blood pressure and are prescribed several medications to control it.

Studies have shown that more frequent hemodialysis is associated with improved blood pressure control and reduced blood pressure medication usage.[9,10] One study found that people who dialyzed for 12 months using the NxStage System One for more frequent home hemodialysis, reduced their number of prescribed blood pressure medications, on average, by almost half and some no longer needed blood pressure medications at all.[10]

HEALTHIER LIVE

Feel less depressed

Low energy, lack of appetite, lack of interest in social activities, and changes in sleep habits, are, unfortunately, common amongst dialysis patients.[11] On the other hand, more frequent home hemodialysis with the NxStage System One has been associated with significant reductions in symptoms of depression and many users say they feel less depressed.[12]

"When I was in-center, I was losing hope. Then I started home hemodialysis and I felt better – hope came back. Now, my wife and I are looking forward to all we planned for our retirement years."—Richard

Richard has been using more frequent home hemodialysis with NxStage since 2010.

More likely to receive a kidney transplant

Did you know? The average waiting time for a kidney transplant is close to three years.[13]

For many people with kidney failure, transplant is considered the best treatment. In a recent study, people doing more frequent home hemodialysis using the NxStage System One were shown to have an increased chance of receiving a kidney transplant compared to people receiving standard in-center dialysis, three times a week.[14]

"In my opinion, doing daily therapy with NxStage's hemodialysis system allowed me to maintain a healthier existence going into my transplant."—Nik

Nik is a former NxStage user from 2007-2011, successfully transplanted in 2011.

HEALTHIER LIVE

LIVE BETTER

Feel much better after treatment

Dialysis can often leave you feeling washed-out, dehydrated, and exhausted. The sudden change to the body caused by removing fluid can cause severe muscle cramps, headaches, dizziness, and nausea. On average, people receiving dialysis in-center three times a week spend about eight hours recovering from a single dialysis treatment[12] and often spend the remainder of the day resting or in bed.

When dialysis is done more often, less fluid builds up, so there is less to remove– this means less stress on the body. People who do more frequent home hemodialysis typically recover much faster. Many even feel ready to resume their normal daily activities within an hour of finishing their treatment.[12] Some people even report feeling just fine immediately after their treatments. So, while treatment can take up to three hours and is done five or six times a week, the reduced recovery time means you can get back to the things you enjoy faster.

Fewer fluid and diet restrictions

Fluid restriction is one of the biggest complaints associated with dialysis. After in-center dialysis treatment, many people often say they have an overwhelming thirst, which forces them to drink more and gain even more water weight before their next treatment. This can be a vicious cycle for many people. In addition to fluid limits, there are typically strict dietary restrictions in place to limit the amount of toxins and electrolytes you retain.

With more frequent home hemodialysis, you normally have less fluid and toxin build-up, as the blood is cleaned more frequently. This may result in fewer fluid and dietary restrictions. Many people doing more frequent home hemodialysis also report their appetite has improved compared to when they were on in-center therapy.[15,16]

Sleep better

Poor sleep quality has been reported in nearly half of those on dialysis. Poor sleep quality is associated with lower quality of life, higher use of medications and antidepressants, and an increased risk of death.[17]

Compared to standard in-center therapy, three times a week, people doing more frequent home hemodialysis with the NxStage System One reported improvements in sleep quality. This includes fewer sleep problems such as sleep apnea and disturbances, and reduced daytime sleepiness.[18]

Ability to keep working or go back to work

For most people, working every day provides a daily routine, healthy interaction with other people, a sense of purpose, and an ongoing feeling of accomplishment. Yet, due to the physical demands and amount of planning involved in standard in-center hemodialysis, many people find themselves unable to work.

However, more frequent home hemodialysis with the NxStage System One provides flexibility in scheduling treatment and may enable you to return to work or school.[19] The ability to resume these activities is due in part to the health benefits of more frequent home hemodialysis with NxStage including quicker recovery time and an increase in energy.[1,12]

"I believe my ability to continue working even with a chronic disease will provide some encouragement toward patients. I want people to know that life can be semi-normal again."—Corvin

Corvin has been using more frequent home hemodialysis with NxStage since 2008.

BETTER LIFE

More satisfaction with your sex life

Many people on dialysis report either not being interested in or not enjoying intimacy with their partner. For many people, sexual intimacy is an important part of their relationship and their dialysis therapy can impact it.

However, a recent study showed that more frequent home hemodialysis with the NxStage System One significantly improves patients' satisfaction with physical intimacy, as compared to standard in-center hemodialysis.[20]

"I am grateful for the System One, but one thing that I'm really thankful for is the return of my libido."—Erich

Erich has been using more frequent home hemodialysis with NxStage since 2006.

Take control of your life

With in-center dialysis, many people are tied to a strict treatment schedule and have to arrange their lives around dialysis. The dialysis treatment may also be managed by different in-center staff on different days and for many, this loss of control and independence can affect their self-esteem and mental attitude.

People on home hemodialysis and their partners are trained to manage their treatment completely. This means the same person will monitor and help perform treatments every time. Many people using the NxStage System One for more frequent home hemodialysis say it is a “liberating feeling” to be in control of their therapy, which in turn offers them increased control over their life in general.*

* It’s important to emphasize, treatment with NxStage System One should only be performed by a trained and qualified person. You should never dialyze alone, regardless of whether you are “trained and qualified.”

BETTER LIFE

LIVE
LONGER

Improved survival

Kidney failure is a serious health challenge which affects many systems in the body. If you live with kidney failure, you understand firsthand the stress this can cause your body. In fact, studies have shown that there is a higher chance of death due to heart complications for people receiving in-center treatments, three times a week, after having the weekend off.[21] This is primarily due to the extra fluid that builds up over that two-day period. This extra fluid build-up can cause stress on your heart and circulatory system.

By doing more frequent hemodialysis, there is less fluid build-up and therefore, less stress on the body. A recent study reported that people using the NxStage System One for more frequent home hemodialysis generally had a lower risk of death and may live longer compared to patients receiving in-center dialysis treatments three times a week.[22]

THE NxStage System One

Simple, flexible, portable

The NxStage System One was made with you in mind, designed to provide simplicity, flexibility, and portability without compromising safety. The System One also is designed to overcome the challenges posed by traditional equipment and is the first truly portable hemodialysis system for home use.

The System One difference:

- No special modifications to your home required
  - Simple plumbing connections and a standard electrical plug minimizes the impact on your home
- Ease of setup and use:
  - Drop-in cartridge allows one-step loading
  - Simple, compact water purification system for home use
  - Premixed bagged fluids for travel
  - Simple interface is designed to be easy to understand and use
- Quick, wipe-down disinfection makes maintenance easy, and our service swap program helps prevent missed treatments
- Dedicated support with NxStage representatives available 24/7

For more information about more frequent home hemodialysis with NxStage, visit our web site at **www.nxstage.com** or call us at **1-866-NXSTAGE** (1-866-697-8243).

IMPORTANT CONSIDERATIONS

Is more frequent home hemodialysis right for you?

Despite the health benefits that more frequent home hemodialysis may provide to those with chronic kidney disease, this form of therapy is not for everyone. Please review this information carefully and discuss it with your doctor as you evaluate your therapy options.

Personal and Partner Responsibility

Home hemodialysis with NxStage requires a patient and partner who are committed to being trained on and following the guidelines for proper system operation. If you choose to do more frequent home hemodialysis, you will be responsible for complying with your dialysis prescription, which may require treatments up to six days per week. Each treatment can take about 2½ to 3 hours or more including set-up and tear-down.

If you choose to do home hemodialysis, you and your partner will need to take on the responsibility for tasks that would normally be taken care of by center staff when receiving treatment in-center. You will need to perform all aspects of the dialysis treatment from start to finish, including setting up the dialysis equipment, needle sticks, responding to and resolving all system alarms, and system tear-down at the end of treatment.

In addition, you must monitor your blood pressure, ensure that proper aseptic technique is followed, and follow all of the training material and instructions given to you by your training nurses. You and your partner will also be trained on and need to know how to respond to any health emergencies that might happen during treatment at home, including dizziness, nausea, hypotension (low blood pressure), and fluid or blood leaks.

Treatment Environment

To do home hemodialysis successfully, you must take care to ensure that you have a clean and safe environment for your treatments. You will also need to set aside space in your home for the needed supplies.

Risks Associated with All Forms of Hemodialysis

All forms of hemodialysis, including treatments performed in-center and at home, involve some risks. These may include high blood pressure, fluid overload, low

blood pressure, heart-related issues, vascular access complications, cramps, backache, headache, dizziness, nausea, an “off” taste in the mouth, fatigue, fever, chills, joint pain, itching, seizures or sinusitis.

All hemodialysis therapies also involve the use of medical devices that introduce the potential for additional risks including air entering the bloodstream, damage of red blood cells, inflammatory reactions, blood chemistry imbalances, blood loss due to clotting of the blood tubing set or accidental blood line disconnection or other leak, allergic reactions, and excess warming or cooling of the dialysate. In addition, dialysis patients may have other underlying diseases that may, in some cases, make it more difficult for them to manage their hemodialysis treatments.

Risks Associated with More Frequent Home Hemodialysis

There are certain risks unique to treatment in the home environment. Treatments at home are done without the presence of medical personnel and on-site technical support. Patients and their partners must be trained on what to do and how to get medical or technical help if needed. When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks.

With more frequent home hemodialysis, you and your partner would be taking on a great deal of responsibility, but many NxStage patients feel that the benefits of this therapy are worth taking on these responsibilities. Thousands of patients are performing more frequent home hemodialysis with the NxStage System One and are enjoying the health benefits, improved quality of life, and additional freedom it can provide.

When performed correctly under the direction and with the support of your medical care team, more frequent home hemodialysis with NxStage may offer tremendous health and quality of life benefits.

You should talk to your doctor to better understand the risks involved and how they might apply to you – and to determine if more frequent home hemodialysis is right for you.

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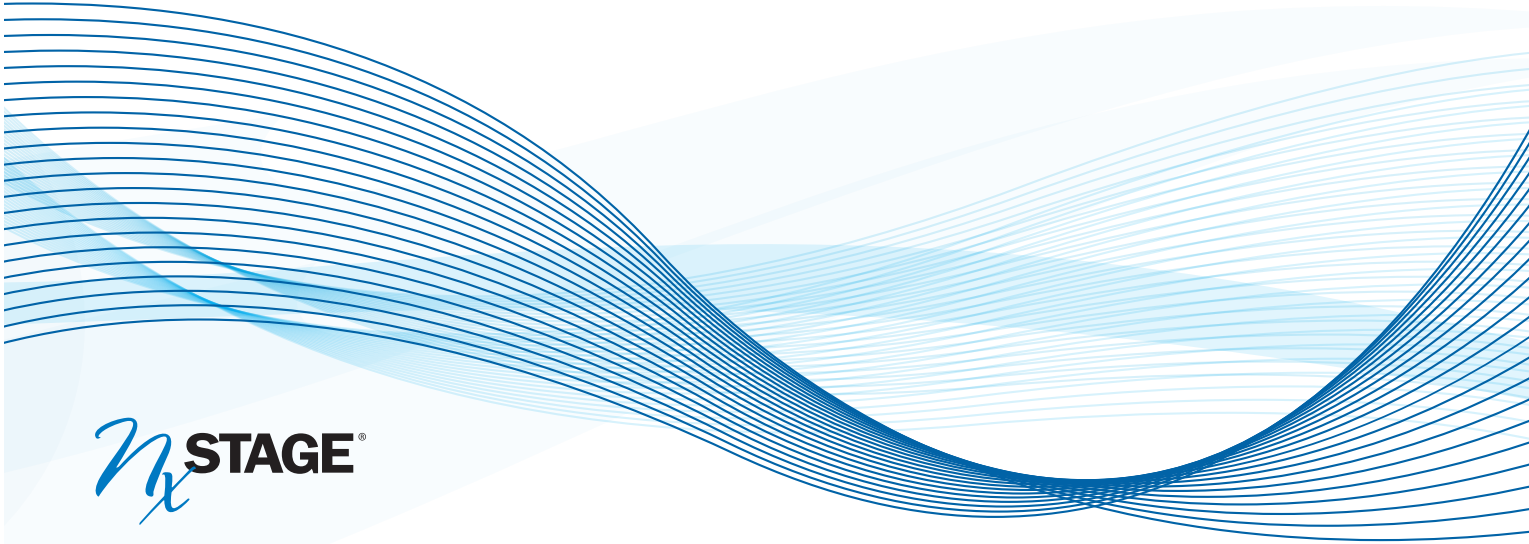
"Now that we're at home, we are able to dream. We are able to look forward to a life, a good life, one that we can spend together."

—Robin, care partner to Richard

Richard and Robin have been using more frequent home hemodialysis with NxStage since 2010



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