

Welcome to our August Webinar on
Home Dialysis: Is It Your Best Treatment Option?

We need your Feedback - Please complete after the program!

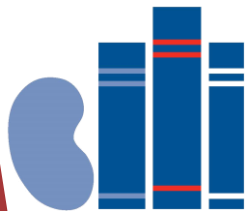
This webinar will be recorded and slides will be available at
www.dpcedcenter.org

Next webinar on 9-27-18 with Edward Leigh on *Communicating with your Healthcare Team: Top Tips to Prepare for Visits and Partner with Professionals!*

Reminder

- All phone lines are muted
- You can ask questions through the Chat Box
- Or, at the end of the presentation, you can ask questions by unmuting your phone (Unmute: #6, then Mute *6)
- Webinar Recording and slides will be available on our web site
- Please complete the feedback form at the end of the program
- Please share the information with others
- ▶ Join us next month on 9-27-18 for our webinar:

Communicating with your Healthcare Team: Top Tips to Prepare for Visits and Partner with Professionals!



Today's Speakers



Dr. Michael Kraus, MD, FACP

Nephrologist,
Indiana University School of Medicine
Associate Chief Medical Officer,
NxStage Medical, Inc.



Vanessa Evans

Patient Advocate Manager,
NxStage Medical, Inc.

Dialysis patient for 20 years, the last 13 years
on more frequent home hemodialysis with
NxStage.



Nx STAGE[®]
Home Therapies



Home Hemodialysis: Is it your best treatment option?

Agenda

- What are my treatment options?
- Why would I want to dialyze more than 3 days a week?
- Why would I want to go home?
- Vanessa's Dialysis Story
- Questions and Answers



What is your current dialysis therapy?





What Are My Treatment Options?



Treatment Options: What do they mean?



In-Center Hemodialysis

The traditional approach.

In-center hemodialysis involves the removal, cleaning, and returning of your blood back to your body. This therapy option is performed three times a week, for approximately four hours per session, at either a dialysis center or hospital.



Peritoneal Dialysis

Treatment you can do almost anywhere.

Peritoneal dialysis therapy uses the lining of your own belly, the peritoneal membrane that covers your abdomen to filter your blood of toxins and extra fluids.



Home Hemodialysis

Treatment in the comfort of your home during the day or overnight.

Home hemodialysis follows the same treatment procedure as in-center hemodialysis through the removal, cleaning, and returning of your blood back to your body.



Kidney Transplantation

The best option available for most patients on dialysis.

Kidney transplantation involves placing a healthy kidney into your body, which comes from either a living or deceased donor.



Why More Frequent Home Hemodialysis?



Health Benefits

Lifestyle Benefits

Designed for Home

NxStage systems are the **ONLY** truly portable hemodialysis machines cleared for home use during the day or overnight while you sleep.





Why Would I Want To Go Home?



**TRUE or FALSE:
Dialysis affects your heart?**



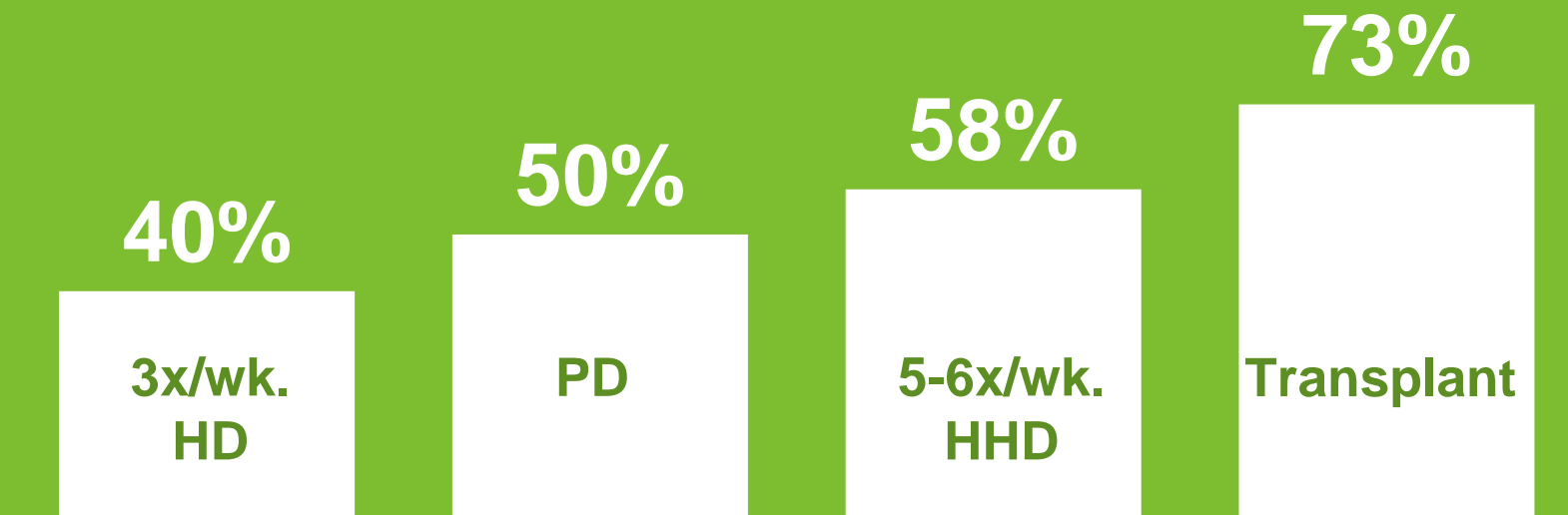
Medical Benefits of More Frequent Home Hemodialysis

Improved cardiovascular outcomes as compared to traditional in-center dialysis (three treatments per week)

- Better control of hypertension (better blood pressure control)¹
- Control of hyperphosphatemia (level of phosphate in blood)²
- 17% lower rate of cardiovascular related hospitalizations³
- **NO** 2-day skip = less stress on heart^{4,5}
- Slower, better ultrafiltration rate (lower fluid removal rate)⁶
- Decreases left ventricular hypertrophy (LVH)⁷
 - LVH is a common cause of heart failure in people with kidney problems, and a leading cause of death

References at end of presentation

LIVE Longer... Improved 5-year Survival^{8,9}



When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks.

87% Improvement Post-dialysis **RECOVERY** Time¹⁰

Each persistent 1-hour increment in post-dialysis recovery time can increase your risk of death by 5%.¹¹

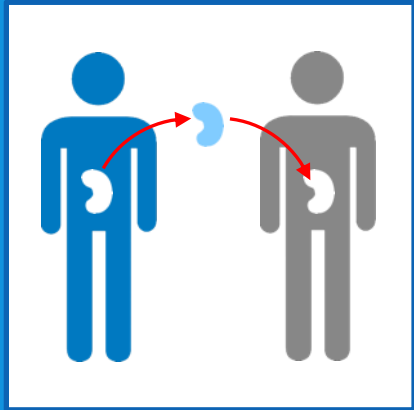
8 Hours – **48%**
of recovery time

4 Hours – **22%**
of recovery time

1 Hour – **5%**
of recovery time

When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks.

14% Higher Rate of **TRANSPLANT**¹²



It has been reported that patients who do more frequent home hemodialysis with NxStage were more likely to receive a kidney transplant, compared to those performing conventional three times per week hemodialysis.¹²

When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks.

Improvements in Health-related **QUALITY** of **LIFE**



Improved **APPETITE**¹³



More **ENERGY** & Vitality¹⁰



Improved **SLEEP** Quality¹⁴



Improved **SEXUAL** Function^{15,16}



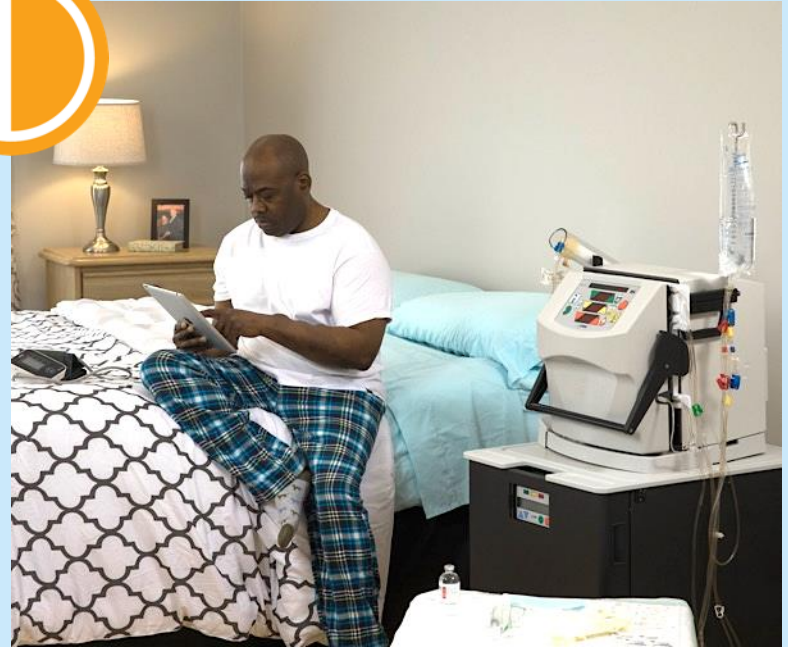
Ability to **WORK**
or Attend **SCHOOL**¹⁷

When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks.

Therapy options to fit **YOUR** individual needs



Home hemodialysis during waking hours either with or without a care partner (solo)



Home nocturnal hemodialysis while you and your care partner sleep

What's most important to me?





Vanessa's Dialysis Story



FEAR

**I
BELIEVE**
...

**My
journey
with
kidney disease.**



6

Questions to Ask Your Doctor

1. What dialysis therapy may offer the best chance of living a normal life?
2. What dialysis treatment would allow the best chance of survival?
3. What dialysis treatment is best for my heart?
4. What dialysis treatment option would you choose if you were faced with kidney failure?
5. What more should I know about home hemodialysis?
6. Where do I begin?






Q&A

You have

Questions

We have

Answers

<p>What Treatment Option is Right for You?</p>	 <p>Eat & Drink More of What You Like</p>	 <p>Fewer Medications</p>	 <p>Work Friendly</p>	 <p>Sleep Quality</p>	 <p>Survival</p>
<p>Standard In-center Hemodialysis (HD)</p>	<p>Strict fluid and dietary limits.¹⁸</p>	<p>You may need to take more medications than any other treatment option.¹⁸</p>	<p>Time to recovery and treatment schedule can make it difficult to work.²⁴</p>	<p>You may experience poor sleep quality.²⁷</p>	<p>Five year survival rate for in-center hemodialysis is 40%.⁸</p>
<p>Peritoneal Dialysis (PD)</p>	<p>More liberal diet than with standard HD, but you consume extra calories from sugar in PD fluid.¹⁹</p>	<p>About half as many medications as standard HD.²¹</p>	<p>You may be able to keep working or go back to work.²⁵</p>	<p>You may experience poor sleep quality.²⁸</p>	<p>Five year survival rate for PD is 50%.⁸</p>
<p>More Frequent Home Hemodialysis (MFHHD)</p>	<p>May offer you the freedom to eat and drink more.¹⁰</p>	<p>You may be able to take fewer blood pressure medications.¹</p>	<p>You may be able to keep working or go back to work.¹⁷</p>	<p>You may experience better sleep quality.¹⁴</p>	<p>Five year survival rate for more frequent HHD with NxStage is 58%.⁹</p>
<p>Nocturnal Home Hemodialysis While You Sleep (NHHHD)</p>	<p>More liberal diet than any other dialysis options.¹³</p>	<p>You may be able to take fewer medications.^{1,22}</p>	<p>You may be able to keep working or go back to work.¹⁷</p>	<p>You may improve symptoms of sleep apnea associated with chronic renal failure.²⁹</p>	<p>Frequent nocturnal HHD has shown similar 5 year survivability as deceased donor transplantation.³¹</p>
<p>Transplant</p>	<p>You may experience very few dietary and fluid restrictions.²⁰</p>	<p>You may likely have a reduction in overall medications but you will need to take anti-rejection drugs.²³</p>	<p>You may be able to keep working or go back to work.²⁶</p>	<p>Your sleep quality may improve.³⁰</p>	<p>Best long term survival compared to other treatment options.⁸</p>

Risks and Responsibility

The reported benefits of home hemodialysis (HHD) may not be experienced by all patients.

The NxStage System is a prescription device and, like all medical devices, involves some risks. The risks associated with hemodialysis treatments in any environment include, but are not limited to, high blood pressure, fluid overload, low blood pressure, heart-related issues, and vascular access complications. When vascular access is exposed to more frequent use, infection of the site, and other access related complications may also be potential risks. The medical devices used in hemodialysis therapies may add additional risks including air entering the bloodstream, and blood loss due to clotting or accidental disconnection of the blood tubing set.

Home hemodialysis with the NxStage System during waking hours may not require a care partner, provided a physician and a qualified patient agree that solo home hemodialysis is appropriate. Patients performing nocturnal treatments are required to have a care partner. Care partners are trained on proper operation and how to get medical or technical help if needed.

Risks and Responsibility (cont'd)

Certain risks associated with hemodialysis treatment are increased when performing solo HHD because no one is present to help the patient respond to health emergencies. If patients experience needles coming out, blood loss, or very low blood pressure during solo HHD, they may lose consciousness or become physically unable to correct the health emergency. Losing consciousness or otherwise becoming impaired during any health emergency while alone could result in significant injury or death. Additional ancillary devices and training are required when performing solo HHD

Certain risks associated with hemodialysis treatment are increased when performing nocturnal therapy due to the length of treatment time and because therapy is performed while the patient and care partner are sleeping. These risks include, but are not limited to, blood access disconnects and blood loss during sleep, blood clotting due to slower blood flow and/or increased treatment time, and delayed response to alarms when waking from sleep.

Patients should consult their doctor to understand the risks and responsibilities of performing these therapies using the NxStage System.

References –

Medical Benefits of More Frequent HHD

1. Kotanko P, Garg AX, Depner T, et al. Effects of frequent hemodialysis on blood pressure: Results from the randomized frequent hemodialysis network trials. *Hemodial Int.* 2015;19(3):386-401.
2. Daugirdas JT, Chertow GM, Larive B, et al. Effects of frequent hemodialysis on measures of CKD mineral and bone disorder. *JASN.* 2012;23(4):727-738.
3. Weinhandl ED, Nieman KM, Gilbertson DT, Collins AJ. Hospitalization in daily home hemodialysis and matched thrice-weekly in-center hemodialysis patients. *Am J Kidney Dis.* 2015 Jan;65(1):98-108.
4. Foley, R. N., Gilbertson, D. T., Murray, T., Collins, A. J. Long interdialytic interval and mortality among patients receiving hemodialysis. *NEJM.* 2011;365(12):1099-1107.
5. FHN Trial Group, Chertow, G.M., Levin, N.W., Beck, G.J. et al. In-center hemodialysis six times per week versus three times per week. *N Engl J Med.* 2010; 363: 2287–2300.
6. Weinhandl, Collins, Kraus. Ultrafiltration Rates with More Frequent Home Hemodialysis. Oral Presentation. 2017 ADC.
7. McCullough, P.A., Chan, C.T., Weinhandl, E.D., Burkart, J.M., and Bakris, G.L. Intensive hemodialysis, left ventricular hypertrophy, and cardiovascular disease. *Am J Kidney Dis.* 2016; 68: S5–S14.
8. U.S. Renal Data System, *USRDS 2015 Annual Data Report: Table 6.3. Adjusted survival (%) by (a) treatment modality and incident cohort year (year of ESRD onset), and (b) age, sex, race, and primary cause of ESRD, for ESRD patients in the 2008 incident cohort (initiating ESRD treatment in 2008)* Abbreviation: ESRD, end-stage renal disease.

References (cont'd)

Medical Benefits of More Frequent HHD

9. Data source: NxStage patient data on file.
10. Jaber BL, Lee Y, Collins AJ, et al. Effect of daily hemodialysis on depressive symptoms and post dialysis recovery time: interim report from the FREEDOM (Following Rehabilitation, Economics and Everyday-Dialysis Outcome Measurements) Study. *Am J Kidney Dis.* 2010;56(3):531-539.
11. Rayner HC, Zepel L, Fuller DS, et al. Recovery time, quality of life, and mortality in hemodialysis patients: the Dialysis Outcomes and Practice Patterns Study (DOPPS). *Am J Kidney Dis.* 2014;64(1):86-94.
12. Weinhandl E, Liu J, Gilbertson D, Arneson T, Collins A. Transplant incidence in frequent hemodialysis and matched thrice-weekly hemodialysis patients. Poster presented at National Kidney Foundation Spring Clinical Meeting, 2012
13. Spanner E, Suri R, Heidenheim AP, Lindsay RM. The impact of quotidian hemodialysis on nutrition. *Am J Kidney Dis.* 2003;42(1 suppl):30-35.
14. Jaber BL, Schiller B, Burkart JM, et al. Impact of short daily hemodialysis on restless legs symptoms and sleep disturbances. *Clin J Am Soc Nephrol.* 2011;6(5):1049-1056.
15. Pinciaroli, AR, Results of Daily Hemodialysis in Catanzaro:12-Year Experience With 22 Patients Treated For More Than One Year. *Home Hemodial Int, Vol. 2, 12–17, 1998.*
16. Kraus M, Finkelstein FO, Daoui R, et al. Short Daily Hemodialysis (SDHD) improves overall Quality of Life (QOL) and physical intimacy: interim results from the FREEDOM study. Abstract presented at the American Society of Nephrology Conference, 2011.

References (cont'd)

Medical Benefits of More Frequent HHD

17. Kraus MA, Cox CG, Summitt CL, et al. Work and travel in a large Short Daily Hemodialysis (SDHD) program. Abstract presented at American Society of Nephrology Annual Conference, 2007.
18. Chiu YW, Tietelbaum I, Misra, et al. Pill burden, adherence, hyperphosphatemia, and quality of life in maintenance dialysis patients. Clin J Am Soc Nephrol. 2009;4(6):1089-1096.
19. Ireton-Jones C. Handbook of Home Nutrition Support. Jones and Bartlett, 2007. Boston, Toronto, London, Singapore.
20. National Institute of Health. 2015. Kidney Failure: choosing a treatment that's right for you. Retrieved from: <http://www.niddk.nih.gov/health-information/health-topics/kidney-disease/kidney-failure-choosing-a-treatment-thats-right-for-you/Pages/facts.aspx>.
21. Szeto CC, Chow KM, Kwan BC, et al. Relation between number of prescribed medication and outcome in peritoneal dialysis patients. Clin Nephrol. 2006;66(4):256-262.
22. Culleton BF, Walsh M, Klarenbach SW, et al. Effect of frequent nocturnal hemodialysis vs conventional hemodialysis on left ventricular mass and quality of life: a randomized controlled trial. JAMA. 2007;298(11):1291-1299.
23. National Kidney Foundation. 2015. Immunosuppressants. Retrieved from: <https://www.kidney.org/atoz/content/immuno>.
24. Kutner N, Bowles T, Zhang R, et al. Dialysis facility characteristics and variation in employment rates: a national study. Clin J Am Soc Nephrol. 2008;3(1)111-116.2.

References (cont'd)

Medical Benefits of More Frequent HHD

25. Purnell TS, Auguste P, Crews DC, et al. Comparison of Life Participation Activities Among Adults Treated by Hemodialysis, Peritoneal Dialysis, and Kidney Transplantation: A Systematic Review. *Am J Kidney Dis.* 2013;62(5):953-973.
26. Sutter Health CPMC. 2014. Resuming Activities After Kidney Transplant. Retrieved from: http://www.cpmc.org/advanced/kidney/patients/topics/kidney_eval_activities.html.
27. Elder SJ, Pisoni RL, Akizawa T, et al. Sleep quality predicts quality of life and mortality risk in haemodialysis patients: results from the Dialysis Outcomes and Practice Patterns Study (DOPPS). *Nephrol Dial Transplant.* 2008;23(3):998-1004.
28. Eryavuz N, Yuksel S, Acarturk G, et al. Comparison of sleep quality between hemodialysis and peritoneal dialysis patients. *Int Urol Nephrol.* 2008;40(3):785-791.
29. Hanly PJ, Pierratos A. Improvement of sleep apnea in patients with chronic renal failure who undergo nocturnal hemodialysis. *N Engl J Med.* 2001;344(2):102-107.
30. Rodrigue JR, Mandelbrot DA, Hanto DW, Johnson SR, Karp SJ, Pavlakis M. A cross-sectional study of fatigue and sleep quality before and after kidney transplantation. *Clin Transplant.* 2011;25(1):E13-E21.
31. Pauly RP, Gill JS, Rose CL, Asad RA, Chery A, Pierratos A, Chan CT. Survival among nocturnal home haemodialysis patients compared to kidney transplant recipients. *Nephrol Dial Transplant.* 2009;24:2915-2919



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