



CHRISTOPHER & DANA REEVE FOUNDATION

NEURORECOVERY NETWORK®



"THERE ARE NO LIMITATIONS TO WHAT YOU CAN DO IF YOU HAVE THE DETERMINATION." - CHRISTOPHER REEVE

Christopher & Dana Reeve Foundation

636 Morris Turnpike, Suite 3A

Short Hills, NJ 07078

1-800-225-0292 toll free

973-379-2690 phone

ChristopherReeve.org

What is the NeuroRecovery Network?

The NeuroRecovery Network® (NRN) is a cooperative network of cutting-edge rehabilitation centers and community fitness and wellness gyms designed to provide and develop evidence-based interventions that promote functional recovery and improve the health and quality of life for people living with paralysis. Each of the NRN clinical centers, pediatric clinical centers, and community fitness and wellness facilities are staffed with a group of dedicated professionals who have received specialized training to deliver the NRN's activity-based therapies.

To learn more about our NRN sites, where they are located, and how to apply to become a participant visit - ChristopherReeve.org/NRN





Why is the NRN so promising?

Simply put, the NRN is the fastest way to move science into practice. By building a network, we can rapidly 'deploy' new therapies that are standardized for delivery across all sites and for a specific patient population. We then capitalize on the collective results and experiences at all NRN locations. A lesson learned at one center is quickly communicated across the network, immediately putting the new knowledge to work for the greater good. A national database of functional, health, and quality of life measures collected from participants provides scientific evidence of the impact of NRN interventions. Furthermore, this knowledge is shared with the broader rehabilitation and fitness communities through presentations, and peer-reviewed publications and journals. The network structure also leads to quality assurances and educational opportunities for future researchers, fitness professionals and therapists

Proven Outcomes: Outcomes from more than 1,000 NRN participants highlight success stories from the NRN and confirm that therapies like Locomotor Training support recovery from spinal cord injury. Since Locomotor Training is standardized across all the NRN sites, we are able to capture quantitative outcome measures to thoroughly evaluate how the clinical intervention is improving function and health.



Model for the Future: The mission of the NRN is to accelerate science and deploy cutting edge therapies into practice more rapidly than traditional research. We also hope to expand this model to other clinical areas and apply our learnings to serve as many people as possible. For example, a network similar to the NRN for individuals with brain injury may prove to be as equally successful. That is why we are dedicated to sharing data across patient populations and scaling effective interventions.

Intervention Costs: For Locomotor Training, the cost per patient for insurance or private pay is related to the resources (one therapist and three techs per treadmill) that are required to deliver the therapy. Trainers use manual contact to apply specific cues to the patient's muscles, limbs and body position. The cues are readily changed in response to the participant's abilities and are adjusted as the participant progresses and his or her own neuromuscular system takes control.



NeuroRecovery Network Benefits and Outcomes

You don't need to look far to find incredible stories of recovery from participants in the NeuroRecovery Network® (NRN). Every day, people living with spinal cord injury are regaining lost mobility and improved quality of life thanks to the NRN.

New interventions developed: As we uncover new knowledge and make new discoveries about how the nervous system works, we are able to build a new suite of novel interventions that will enhance our toolbox of strategies. The newest NRN intervention, neuromuscular electrical stimulation (NMES), is a revised take on functional electrical stimulation which has been used for years to activate the muscular system. However, it does not teach or re-train the system like other NRN therapies. NMES builds on different parameters to stimulate access to the central nervous system, heightening the system's excitability and increasing motor output. By combining science and therapy, we have discovered an additional population of individuals who benefit from this new intervention.

Long-term benefits: Unlike traditional therapy, the NRN works with the patient from the start to incorporate techniques and therapies into his or her daily life. By working with the family or the individual, we emphasize "self-training" to improve everyday activities like standing with a walker at home with assistance, getting in and out of bed while weight-bearing through the feet, or using upper extremities for daily tasks with less adaptive devices. Through self-training, newly gained functions can be reinforced and strengthened.



Individualized results: No one injury or disability is the same, so rehabilitation must be tailored to the individual and his or her needs. By building on how the central nervous system operates, we can develop new strategies to optimize recovery and maximize individual results. The NRN's unique recovery-based rehab is an efficient and less costly way to develop, fine-tune and deploy new techniques rapidly, while standardizing protocols and collecting data in both clinical and community settings. Ultimately, our goal is to eliminate the gap between evidence-based science and clinical practice. Through a vast inventory of resources, we can push the envelope for recovery across all participants.

Commitment to success: NRN activity-based interventions emerged from several decades of basic research. These evidence- and science-based therapies are developed through a translational network where new findings in the lab are moved into the clinic and then into the community. Questions that arise in the clinic or community setting are brought back to the lab for further study. This constant information exchange is why the Reeve Foundation believes that the NRN program and practices are the best way to bring new knowledge and therapies to individuals living with paralysis.



"I gained irreplaceable benefits from my time in the NRN. Before, 95 percent of the time if I fell forward in the chair, I would have to ask for help ... I had big improvements in my trunk and my ability to activate my core. The NRN helped me develop a lot more independence. It makes my day better when I can do more things myself."

- Mike Nichols
Kessler Institute for Rehabilitation NRN participant



"Eden started to show significant improvement within the first twenty sessions of the program at Frazier. Locomotor Training has begun to retrain her spinal cord to be active again. With the support of her therapists, she has taken her first steps."

- Kylee Hoelscher, on her six-year-old daughter Eden
Frazier Rehab Institute NRN participant



"The most important thing you can do as a diabetic is exercise and my results confirmed that this is still true in people with a spinal cord injury. Going to the NRN was a transforming experience. I was very active before my injury and the NRN gave me access to the cardiovascular fitness I needed. Having the ability to maintain a level of activity throughout my time at the NRN was essential."

- Dr. Eugene "Gene" Alford
TIRR Memorial Hermann Hospital NRN participant



"I never thought with such a severely disabled child that I would ever need to child-proof my home. And now I do: I guess that's a good problem to have!"

- Amy Smith, on her two-year-old daughter Emmalie
Frazier Rehab Institute NRN participant



CHRISTOPHER & DANA REEVE FOUNDATION

TODAY'S CARE. TOMORROW'S CURE.®

Learn more today!

To learn more about our NRN sites, where they are located, and how to apply to become a participant visit

ChristopherReeve.org/NRN

Christopher & Dana Reeve Foundation

636 Morris Turnpike, Suite 3A

Short Hills, NJ 07078

1-800-225-0292 toll free

973-379-2690 phone

ChristopherReeve.org