**The Spinal Cord Injury Rehab Program**

Wake Forest Baptist Medical Center’s Spinal Cord Injury Program provides specialized, intensive rehabilitation for patients age 13 and older with spinal cord dysfunction due to trauma or disease resulting in paralysis (loss of strength), loss of sensation (feeling), and loss of control over body functions. The Program offers the expertise of a specialized interdisciplinary care team of rehab professionals who help patients cope with their injuries, re-learn basic skills, maximize functional independence, and reintegrate back into their communities. The Program also provides patient and family training to prepare patients and their families for rehab discharge, to help coordinate equipment needs and home modifications, and to provide information on lifetime health and wellness resources.

**Philosophy of Care**

Each patient is unique, with specific needs, capabilities and potential. Therefore, each patient’s treatment plan is individualized and modified as recovery progresses. The rehabilitation team, patient, and family/caregivers work together to set and achieve functional improvement goals.

**The Care Team**

The Program’s success is attributed to its comprehensive, interdisciplinary team, which includes the patient, family members/caregivers, and professionals specializing in:

|  |  |  |
| --- | --- | --- |
| Rehab Medicine | Clinical Nutrition | Social Work |
| Rehabilitation Nursing | Occupational Therapy | Vocational Rehab\* |
| Clinical Psychology | Physical Therapy | Assistive Technology\* |
| Neuropsychology | Speech Language Pathology | Recreation Therapy |

\*These services are provided by team members who are not directly employed by WFBMC, but who work very collaboratively with the Wake Forest Baptist Medical Center Rehab Programs.

**Scope of Services**

* Board-certified physicians specializing in Physical Medicine and Rehabilitation (PM&R) direct the patient’s plan of care on a daily basis.
* Rehabilitation Nursing is provided 24 hours a day, 7 days a week
* Each patient receives a minimum of 15 hours of therapy each week, including a combination of physical therapy, occupational therapy, speech therapy, and/or orthotics/prosthetics training. The type of therapy, intensity of therapy, and schedule are tailored to the needs of each patient. Therapy services are provided between 7AM and 5PM Monday through Friday, and on Saturdays as needed.
* Recreation therapy, clinical psychology, neuropsychology, and assistive technology services are available 5 days a week, and are provided based on the needs of each patient.
* Each patient is assigned a Care Coordinator who acts as a liaison between patient, family/caregiver, rehabilitation professionals, and third party payers.
* Wake Forest Baptist Medical Center provides all ancillary services including, but not limited to, Diagnostic Imaging, Laboratory, Pharmacy, Spiritual Care, and Respiratory Therapy.
* Consulting physician services for other specialties are provided by Wake Forest Baptist, as needed.
* If services not available within the Wake Forest Baptist are needed, referrals or consultations are made for these services, which may include, but are not limited to: cognitive rehab, orthotics and prosthetics, durable medical equipment, caregiver/family services, substance abuse counseling, vocational rehabilitation, rehab engineering, and driver’s assessment and education.

**Treatment Goals and Common Interventions**

The ultimate goal is to return each patient to the highest level of independence possible, and in most cases, to return patient to home. Specific treatment goals are individualized for each patient and may include:

* Maximizing function in:
	+ Mobility and balance
	+ Activities of Daily Living (eating, grooming, dressing, bathing)
	+ Communication and cognition
	+ Bowel and bladder management
* Addressing sexuality and family issues
* Disability adjustment, counseling, and coping strategies
* Patient and family education for individualized needs
* Recommending healthy living practices for weight control and smoking cessation
* Optimizing community integration and life roles through community outings, recreation therapy and use of assistive technology
* Identifying additional services for families/support systems (e.g., support groups)

**Spinal Cord Injury**

The Program welcomes patients with spinal cord injury due to *any etiology and for all levels of injury* resulting in either paraplegia/Para paresis or tetraplegia/tetra paresis as long as the patient no longer needs mechanical ventilator support (breathing machine). The following table describes the etiology, levels, and co-occurring conditions associated with Spinal Cord Injury.

|  |  |  |
| --- | --- | --- |
|  | **Non-Traumatic Spinal Cord Injury** | **Traumatic Spinal Cord Injury** |
| **Includes, but not limited to:** | Intervertebral disco disorders with myelopathy, intraspinal abscess, vascular myelopathies | Anterior cord syndrome, Brown-Sequard Syndrome, cauda equine syndrome, central cord syndrome, fracture of vertebral column with spinal cord injury, concussion and edema of spinal cord, posterior cord syndrome, nerve root |
| **Levels of Cord Injury** | Cervical (C1-C8)Thoracic (T1-T12)Lumbar (L1-L5)Sacral regionCauda equine | Cervical (C1-C8)Thoracic (T1-T12)Lumbar (L1-L5)Sacral regionCauda equine |
| **Effects** | Paraplegia, tetraplegia, no plegia, complete, incompleteLaterality: left, right, bilateral | Paraplegia, tetraplegia, no plegia, complete, incompleteAcute vs sequalae (late effects) from initial injuryLaterality: left, right, bilateral |
| **Associated Deficits and Co-Occurring Conditions include, but are not limited to:** | Bowel and bladder dysfunction, sexual dysfunction, blood pressure changes, bradykinesia (slowness in movement), clonus (involuntary muscle contraction and relaxation), depression, post-traumatic stress disorder, dysphagia (impaired swallowing), flaccidity, gait impairment, heterotrophic ossification, hyperreflexia, impaired balance, impaired motor control, orthostatic hypotension, postural instability, proprioception, respiratory dysfunction, spasticity, tremors, involuntary movements, muscle atrophy, pain, skin breakdown/pressure ulcers and changes in control of heart rate, body temperature, breathing rate, digestion, sensation |

**Demonstrated Excellence in Rehabilitation**

Wake Forest Baptist’s Comprehensive Inpatient Rehabilitation Program has been awarded accreditation from the Commission on Accreditation of Rehabilitation Facilities. CARF Accreditation means that Wake Forest Baptist Medical Center’s Brain Injury Rehab Program:

* + - is committed to excellence in rehabilitative care
		- meets rigorous international standards of patient care and satisfaction
		- is committed to helping each patient achieve their individualized rehabilitation goals
		- constantly works to improve services and stays on the edge of rehabilitation techniques and technology
		- surpasses communication expectations with referral and payer sources

**Admission Criteria and Referrals**

Patients admitted to the Spinal Cord Injury Rehab Program must have realistic rehabilitation goals that reflect the potential for gaining independence or achieving a higher function in self-care activities and mobility. Additionally, a patient must:

* Be 13 years of age or older
* Require and be able and willing to participate in intensive physical, occupational and/or speech therapy (if indicated) at least 3 hours a day
* Have the need for more than one type of rehab therapy and have potential for functional improvement.
* Be medically appropriate for an inpatient hospital environment and have stable vital signs.
* Have a supportive social system and a defined, expected discharge destination to home
* Have a cognitive level of three or higher on the Rancho Los Amigos scale.
* Be able to breath without the help of a mechanical ventilator at all times.

Wake Forest Baptist Health accepts payment from all major private insurance plans, worker’s compensation, Medicare and Medicaid. The Program evaluates and verifies insurance coverage for each patient prior to admission. If the patient does not have insurance coverage for the Rehabilitation Program, the patient and/or family/caregiver will be notified and alternate payment plans or treatment options will be discussed. Any estimated financial responsibilities will be communicated to the patient and/or family.

The Program welcomes referrals from many sources, including, but not limited to, physicians, short term acute care hospitals, rehab hospitals, nursing facilities, long term acute care hospitals, and home health agencies. To make a referral, call (336) 713-8500 or (888) 605-9568.

For additional information about the program, call (336)716-8454 or email Rehab4Life@wakehealth.edu.

The Rehabilitation Programs at Wake Forest Baptist Medical Center do not discriminate against individuals of varying age, disability, race/ethnicity, religion, gender, or sexual preference and strive to understand and the be sensitive to these characteristics and to patient-specific preferences.



**Spinal Cord Injury Program Patient Outcomes**

**Program Patients – Calendar Year 2017**

|  |  |
| --- | --- |
| **Age Group** | **Number of Patients** |
| 13-17 | 5 |
| 18-40 | 22 |
| 41-65 | 45 |
| 66-85 | 26 |
| 86-100 | 0 |

Number of Patients: **98**

Patients with Traumatic Spinal Cord Injuries: 36

Patients with Non Traumatic Spinal Cord Injuries: 62

76% were males

24% were females

Average Days in Program: 22

Therapy Intensity (on average):

3.5 hours per day, 5 days per week

**Patient Outcomes – Calendar Year 2017**

The ability to return home is a key outcome and expectation for most Program participants. During calendar year 2017, 75% of the Program’s patients returned home. 7% of patients returned to their previous hospital setting, but often for just a short period prior to returning to Rehab. 17% of patients were discharged to a long term care setting for continued rehab and/or nursing care.

|  |  |
| --- | --- |
| **Functional Improvement Goals** | **% Patients with Improved Function between Admission and Discharge** |
| **Traumatic Spinal Cord Injury** | **Non-Traumatic Spinal Cord Injury** |
| Self-Care | 94% | 96% |
| Bowel and Bladder | 43% | 61% |
| Locomotion (Walking/Stairs) | 100% | 99% |
| Bed, Toilet, & Chair Transfers | 100% | 99% |

 Function is measured, or scored, at admission, during the stay, and at discharge. The table to the left shows the percentage of patients who demonstrated improvement in function between admission and discharge from the Program.

Source: Uniform Data Systems for Medical Rehabilitation

**Patient/Family Satisfaction**

In 2017, Spinal Cord Injury Program participants completed a survey about their likelihood of recommending the Program to friends and family members. 95% gave a rating of 9 or 10 on a 10 point scale, indicating they are extremely likely to recommend the program.

**Spinal Cord Resources for Your Continued Recovery**

There are many other services within our health system and in your community that may assist in your recovery. The next two pages introduce some of the services and resources available through our organization, the local community, or national organizations. We encourage you to call or visit the website for these organizations. However, please do not hesitate to ask us for additional information on these services or for other providers or services in your community.

**The North Carolina Spinal Cord Injury Association (NCSCIA)** works to enable people with spinal cord injury and disease to achieve their highest level of independence, health, and personal fulfillment by providing resources, services, and peer support. For more information:

919.234.4171

 http://www.ncscia.org/contact\_us.html

Email: support@ncscia.org

**The National Spinal Cord Injury Association (NSCIA)** provides active-lifestyle information, peer support and advocacy that empowers people living with spinal cord injuries and disorders (SCI/D) to achieve their highest potential. The **NSCIA Resource Center** connects you with information, resources, and access to an “Ask Spinal Cord Central” help center. Wake Forest Baptist Health is a member of NSCIA. For more information:

800.962.9629

Email: info@spinalcord.org

The **National Institutes of Neurological Disorders and Stroke** provides a wealth of information on treatment, prognosis, research, and rehabilitation for spinal cord injury.

www.ninds.nih.gov/disorders/sci/detail\_sci.htm

**The Christopher Reeve Spinal Cord Injury and Paralysis Foundation** is dedicated to curing spinal cord injury by funding innovative research, and improving the quality of life for people living with paralysis through grants, information and advocacy. For more information:
****www.christopherreeve.org/

**Paralyzed Veterans of America** offers resources and benefits to meet the needs of veterans who have

experienced spinal cord injuries. For more information:

www.pva.org

**Peer support services** are designed to provide individuals and their families with an opportunity to meet and talk with others who are successfully coping with spinal cord injury. Peer Support services can be provided in informal one-on-one sessions or in small groups.

*During the inpatient stay,* patients may also participate in an outing to participate in a local support group. To learn more, please notify your recreation therapist.

*After discharge,* the following **local spinal cord injury support groups** are available.

**SpiNet** of Winston-Salem, serving the Triad area.

Contact: Celia Dixon, WFBH

336.713.8394

**Spinal Cord Resources for Your Continued Recovery**

WFBH’s **Club Independence (Club I)** is an interactive Day Recreation Therapy Program that provides education, recreation, and overall health and wellness opportunities for individuals with disabling conditions, including spinal cord injury.  **Club I** is the only program of its kind in the Triad and one of only two in North Carolina. Led by licensed recreation therapists, **Club I** addresses ways for members to enhance their quality of life and assists them in returning to the community and to recreational activities that they once enjoyed. **Club I** meets on Tuesdays and Thursdays from 9:00am to 4:00pm at Medical Plaza Miller. Members must be 18 years of age or older and independent with their activities of daily living and medical management. For more information:

336.716.8007

 www.wakehealth.edu/Recreation-Therapy/Club-Independence.htm

Wake Forest Baptist Health’s **Assistive Technology Center** is a partnership with the North Carolina Assistive Technology Program (NCATP) and is a demonstration center for assistive technology devices (AT).  Assistive Technology or “AT” is any piece of equipment or device that a person with a disability uses to make every day living easier, to be more productive in the workplace or to be more independent. Therapists, consumers/patients, and family members can visit the center at Medical Plaza Miller to look at devices, have them demonstrated, and try them out.  Many of the devices can be loaned out for short periods of time to try out in the environment of choice. For more information:

Contact: Paul Eklund

 336.716.8030

 www.wakehealth.edu/Recreation-Therapy/Assistive-Technology.htm

**BestHealth** is the Piedmont Triad’s trusted source for hands-on health knowledge, classes and screenings.

BestHealth is presented by Wake Forest Baptist Health, one of America’s top ranked hospitals. An optional membership is also available to individuals who wants to take a more active role in improving or managing their health. For more information:

336.713.BEST (336.713.2378)

www.wakehealth.edu/BestHealth.

The **Winston-Salem Mayor’s Council for Persons with Disability** hosts free meetings at 11:30am, the second Tuesday of each month. For more information:

 336.245.5678

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The Inpatient Rehabilitation Programs are pleased to offer a **Rehabilitation** **Resource Center** on the

Comprehensive Inpatient Rehabilitation Unit in the Sticht Center. Please visit the center and let us know what you think.

If you need assistance finding additional resources in your community:

Contact: Karen Lawrence, Rehabilitation Outreach Coordinator

336.716.8454

Email: Rehab4Life@wakehealth.edu.

**Map and Driving Directions to the Sticht Center**



The Rehabilitation Programs are located on the 3rd floor of the Sticht Center. Park in Patient/Visitor Deck A.

**From Interstate 40 East:** Take Business 40 toward Winston Salem. Exit Cloverdale Avenue. At the bottom of the exit ramp, continue straight through the traffic light onto Medical Center Boulevard. Proceed up the hill and around the curve. Turn left into the Main Entrance to the Medical Center. Turn into the first drive on your left. And then right to park in Deck A.

**From Interstate 40 West**: Take Business 40 toward Winston Salem. Exit Cloverdale Avenue. At the bottom of the exit ramp, turn right on Cloverdale Avenue. At the first traffic light, turn left onto Medical Center Boulevard and proceed up the hill and around the curve. Turn left into the Main Entrance to the Medical Center. Turn into the first drive on your left, and then right to park in Deck A.