

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	Recreation Therapy
Clinical Psychology	Physical Therapy	Assistive Technology*
Neuropsychology	Speech Language Pathology	

*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 region Cauda equine	Cervical (C1-C8) Thoracic (T1-T12) Lumbar (L1-L5) Sacral region Cauda equine
Effects	Paraplegia, tetraplegia, no plegia, complete, incomplete Laterality: left, right, bilateral	Paraplegia, tetraplegia, no plegia, complete, incomplete Acute vs sequela (late effects) from initial injury Laterality: 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 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 be sensitive to these characteristics and to patient-specific preferences.

Spinal Cord Injury Program Patient Outcomes

Program Patients – Calendar Year 2017

Number of Patients: **98**

Patients with Traumatic Spinal Cord Injuries: 36
 Patients with Non Traumatic Spinal Cord Injuries: 62

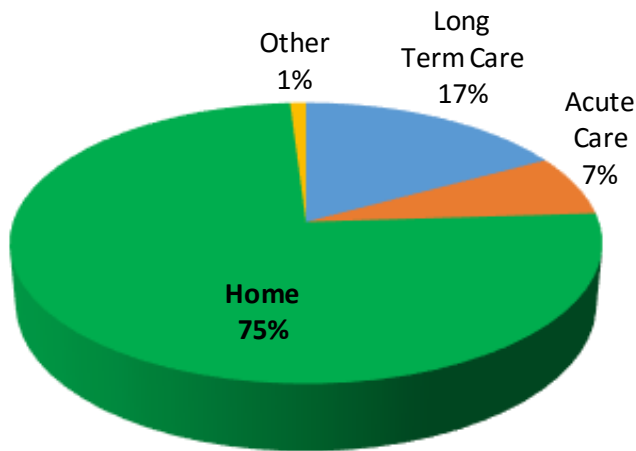
76% were males
 24% were females

Average Days in Program: 22

Therapy Intensity (on average):
 3.5 hours per day, 5 days per week

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

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.

What to Expect in *Your* Rehab Program

The information below will give you an idea of what your rehab program may include. Please keep in mind that your rehab care team will complete a thorough evaluation after admission and develop a more detailed care plan based on your needs and your family's needs.

Name _____ Diagnosis _____ Rehab Physician _____

Location: _____ Expected Days in Program* _____ Expected Discharge _____

Insurance Coverage: _____

Rehab Intensity: Treatment will include a minimum of either three hours of therapy per day, five days per week, or fifteen hours of therapy over the seven day period. On average, patients in the Program receive 90 minutes physical therapy, 90 minutes occupational therapy, and 20 minutes of speech therapy per day, 5 days per week.

Program Services		Treatment Goals
<input type="checkbox"/>	Rehabilitation Physician Services	Manage your medical condition to ensure your safety and progress toward your goals. Nurse practitioners, physician's assistants, medical students, and residents may work in close collaboration with your rehab physician. During your stay, physician orders will be responded to, with results, within 24 hours, unless otherwise specified.
<input type="checkbox"/>	Physical Therapy	Improve & maximize your mobility skills, safety, strength and endurance
<input type="checkbox"/>	Occupational Therapy	Improve your ability to complete activities of daily living such as eating, dressing, bathing, toileting and home management; address sexuality issues related to impairment
<input type="checkbox"/>	Speech Therapy	Improve your swallowing, communication and cognitive skills
<input type="checkbox"/>	Rehab Nursing	Manage your bowel and bladder control, address family issues associated with impairment, educate on care needs, including health and wellness. Our team will be asking you to assume more responsibility and independence the closer you get to discharge. This will make you and your family better prepared for your activities of daily living and resuming home life.
<input type="checkbox"/>	Nutrition Services	Educate and ensure proper nutrition during treatment
<input type="checkbox"/>	Clinical & Neuropsychology	Help you and your family members with emotional and mental health challenges associated with temporary or permanent disability
<input type="checkbox"/>	Recreation Therapy	Educate you and your family on how to adapt to community environment after discharge and how to enjoy recreational activities safely
<input type="checkbox"/>	Care Coordination	Coordinate services with the care team, you, and your family members to ensure needs are met prior to discharge
<input type="checkbox"/>	Orthotics	Provide custom orthotic (if needed) to improve mobility and range of motion
<input type="checkbox"/>	Other	The Program is attentive to the specific cultural or other needs of each patient. Please let us know if you have any specific needs or requests.

What to Expect During Your Stay

The following is a typical schedule for the first three days after admission to the Rehab Program.

Day One

- ◆ Arrive on the 3rd floor of the Sticht Center at assigned room.
- ◆ Nurse assesses your condition and needs upon arrival to the rehabilitation unit.
- ◆ Meet with the physician, social worker and nurses within the first 24 hours.
- ◆ Receive an assigned wheelchair for the rehab stay.
- ◆ Receive a tentative schedule for each therapy. Throughout your stay, you will receive regular updates on the scheduled times for each therapy service identified for your care plan.

Day Two

- ◆ Begin therapy evaluations and treatment, which could include physical therapy, occupational therapy, speech therapy and recreation therapy. You will participate approximately three hours of therapy each day and at least 15 hours per week.

Day Three

- ◆ Working with you and your family, the Rehab team develops an individualized Plan of Care based on your condition and determines your functional status. The Plan of Care guides your treatment program. The rehab team reviews your progress toward your goals at least weekly.

What to Expect During and After Discharge

Your care coordinator will work with you, your care team, and your family/caregiver to coordinate the best discharge plan for your individual needs. Many activities must be completed prior to discharge. For example:

- Your care team will make recommendations for equipment you will need at home or modifications that you will need to make at home for your safety and continued recovery.
- Your Care Coordinator will arrange for delivery of equipment.
- Your care team will determine if you need assistance from a home health agency, which includes nursing and/or therapy at home. Another option is outpatient therapy after your discharge. If the best option for you is home health, your Care Coordinator will give you a list of agencies to choose from near your home and arrange Home Health visits. If outpatient therapy is the best option for you, the Care Coordinator will set up appointments for outpatient therapy.
- Your care team will review all discharge instructions with you.
- The unit secretary will schedule follow-up appointments with your physician.

When your physician notifies you that you will be going home, please be aware that it may take several hours for the care team to complete all necessary items and ensure that you have a safe and successful discharge from the Program.

After discharge from the Inpatient Rehabilitation Program:

- ◆ Your rehabilitation journey will continue, and you may need additional resources to assist with lifestyle changes. During your stay, we will provide information about additional resources that are tailored to your individual needs. If you have additional needs or questions about community resources, please contact Karen Lawrence at 336.716.8454 or email: Rehab4Life@wakehealth.edu.
- ◆ You will receive a Press-Ganey Survey in the mail to request feedback on your satisfaction with our services. Please note that you may receive 2 surveys — one for your stay in the acute hospital and a second one for your stay in our Rehabilitation 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

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.

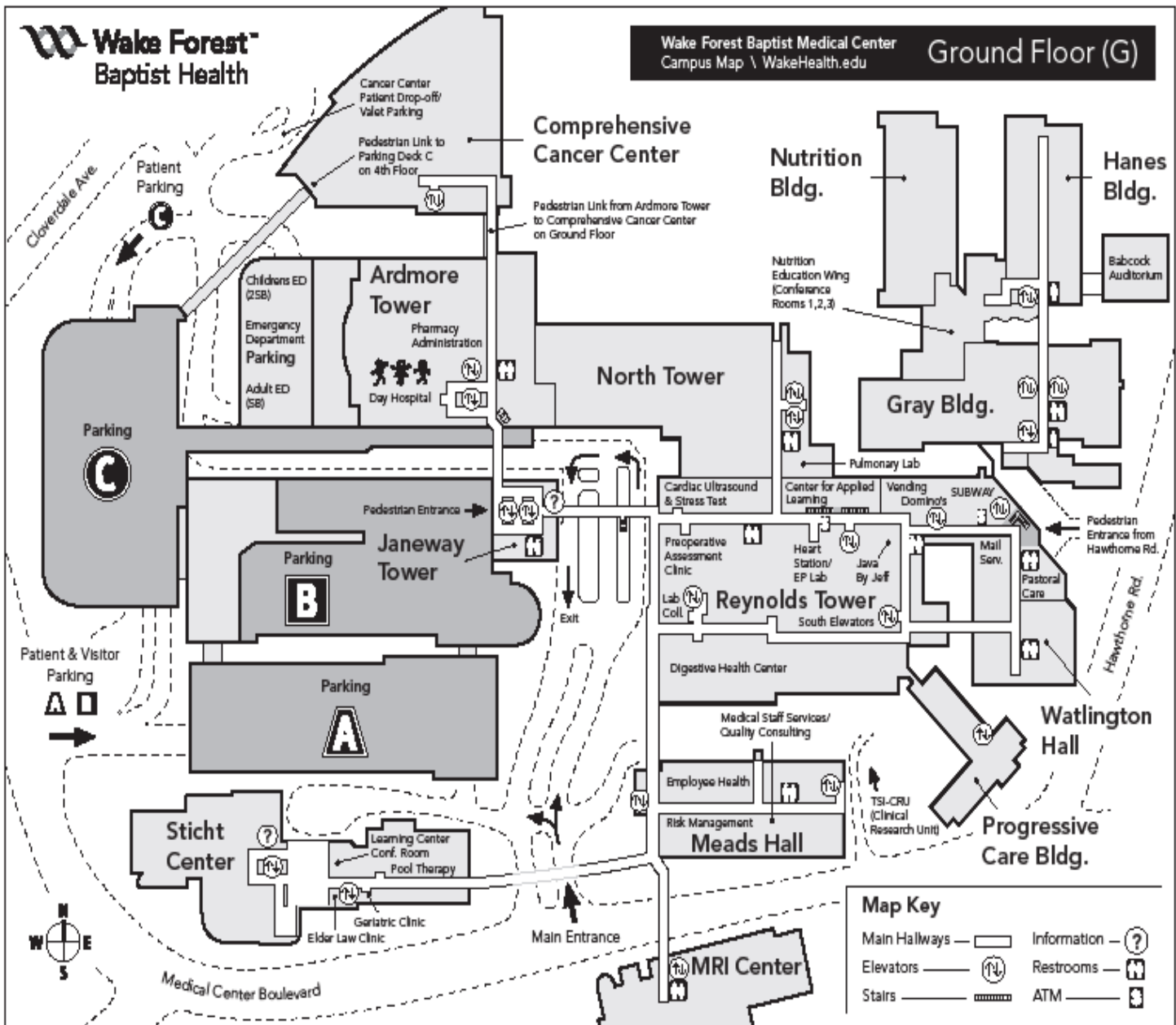
If you need assistance finding additional resources in your community:

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.

Contact Numbers

We want to provide the best possible care and service to you and your family. If you have a problem, concern, or unmet need related to your stay on the rehab unit, please speak to your nurse or care coordinator as soon as possible. We are here to help you each step of the way. Listed below are phone numbers that you may find helpful during your stay.

Rehabilitation Units

Acquired Brain Injury (ABI) Unit-3SA Rooms-301-310	336.713.8300
General Rehabilitation Unit-3SB Rooms-351-369	336.713.8341
Patient Rooms	336.702.5(room number)

Rehabilitation Program Management

Nurse Manager: Jamie Brown	336.713.8355
PT/OT Therapy Manager: Jennifer Brown	336.713.8065
Speech Therapy Manager: Brooke Johnson	336.716.5798
Administrative Director: Amy Crews	336.716.8434

Care Coordinator

Joy Watson	336.713.8815
Katherine Conrad	336.716.8024
Auria Chamberlain	336.716.1071

Office of Patient Experience

336.713.2273

Billing and Insurance

Billing	336.716.4958 or 877.938.7497
Financial Counselor	336.716.0681

After Discharge

For Questions about community resources:

Karen Lawrence, Outreach Coordinator 336.716.8454

Inpatient Rehabilitation Website: www.wakehealth.edu/rehabservices

Email for all general inquires about rehab services: Rehab4Life@wakehealth.edu