

The Stroke Rehab Program

Wake Forest Baptist Medical Center's Inpatient Stroke Rehab Program partners with patients, families, and support systems to deliver services that focus on prevention, increasing functional independence, and maximizing the quality of life for individuals age 13 and older who have experienced a stroke. Patients admitted to the Program commonly exhibit decreased strength and sensation; impaired posture, movement, and balance; impaired communication; difficulty swallowing; and impaired bowel/bladder function. These deficits may interfere with the patient's ability to walk, communicate, and perform activities of daily living such as dressing, bathing, feeding, and toileting. The goal of the rehab process is to maximize independence and the patient's ability to return to life roles and activities that include driving, working, returning to school, social events, and community activities. The Stroke Rehab Program develops individualized treatment plans aimed at assessing patient risk, promoting functional gains, and teaching the patient and family effective coping skills for life after discharge from rehab.

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 types of therapy, intensity of therapy, and schedule are tailored to the needs of each patient. Therapy services are provided 7AM to 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, 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
 - Swallowing
 - Bowel and bladder management
- Addressing sexuality and family issues
- Disability adjustment, counseling, and coping strategies
- Patient and family education for individualized needs
- Prevention, recognition, assessment, and treatment of conditions related to stroke and its complications, which may include:
 - Angina
 - Anxiety
 - Bladder dysfunction
 - Cardiac arrhythmias
 - Sleep disturbances
 - Congestive Heart Failure
 - Contracture
 - Seizure
 - Dehydration
 - Deconditioning
 - Degenerative joint disease
 - Dementia
 - Depression
 - Diabetes mellitus
 - Dyslipidemia
 - Dysphagia
 - Emotional stability
 - Exercise intolerance
 - Falls and injuries
 - Fatigue
 - Hypertension
 - Malnutrition
 - Obesity
 - Pneumonia
 - Central post-stroke pain syndrome
 - Pressure ulcers
 - Recurrent Stroke
 - Sexual Dysfunction
 - Complex regional pain syndrome
 - Shoulder dysfunction
 - Orthostatic hypotension
 - Spasticity/abnormal muscle tone
 - Thromboembolic disease
 - Urinary tract infection
 - Ventilatory insufficiency
- Reducing risk factors for recurrent stroke, which may include:
 - Hypertension
 - Coronary disease
 - Obesity
 - Thromboembolic disease (blood clots)
 - Diabetes mellitus
 - High alcohol intake
 - High cholesterol
- Recommending healthy living practices including, but not limited to, weight control and smoking cessation
- Optimizing community integration and life roles through community outings, recreation therapy and use of assistive technology
- Identifying and providing additional services for families/support systems (e.g., support groups)

Specialized Technology

The Stroke Rehab Program uses state-of-the-art procedures and technology for stroke care including:

- Bioness – Functional electrical stimulation
- Lite Gate – Partial weight-bearing gait therapy
- VitalStim – Swallowing therapy

Demonstrated Excellence in Rehabilitation

The Stroke Rehab Program has been awarded accreditation from the Commission on Accreditation of Rehabilitation Facilities. CARF Accreditation means that Wake Forest Baptist Medical Center's Stroke 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 Stroke 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 336716-8454 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.

Stroke Rehab Program

Stroke Rehab Program Patients – Calendar Year 2017

Patients in most recent year: **172**

Patients with Right Brain Strokes: 69

Patients with Left Brain Strokes: 64

Patient with Bilateral/No Paresis/Other: 39

58% were males.

42% were females.

Average Days in Program: 15

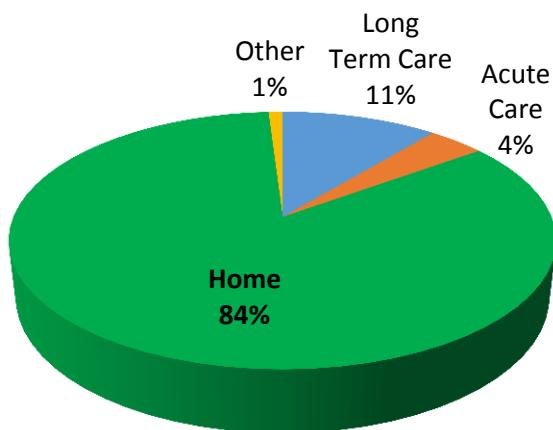
Therapy Intensity:

3.5 Hours per day, 5 days per week

Age Group	Number of Patients
13-17	3
18-40	17
41-65	82
66-85	62
86-100	8

Patient Outcomes – Calendar Year 2017

Setting After Program Discharge



The ability to discharge patients to their home is a key outcome and expectation for inpatient rehab programs. Wake Forest Baptist's Stroke Rehab Program outperforms other programs in returning patients to home. In 2017, 84% of patients were discharged to home, compared to the national average of 77%. 4% of patients were discharged to their previous hospital setting, but often for a short period prior to returning to the Rehab Program. 11% of patients were discharged to long term care setting for continued rehab and/or nursing care.

Functional Improvement in:	% Patients Who Have Improved Function between Admission & Discharge	Average Improvement Between Admission & Discharge
Self-Care	85%	51%
Bowel and Bladder	56%	38%
Locomotion (Walking/Stairs)	90%	139%
Bed, Toilet, & Chair Transfers	90%	76%
Communication	66%	24%
Interaction/Memory/ Problem Solving	62%	24%

Source: Uniform Data Systems for Medical Rehabilitation

Patients and family members work with the care team to set functional improvement goals. Function is measured, or scored, at admission, during the stay, and at discharge. The table to the left shows the percentage of patients who demonstrate functional improvement and the average percentage improvement.

Patient/Family Satisfaction

In 2017, 91% of Stroke 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 Stroke Program receive 70 minutes physical therapy, 80 minutes occupational therapy, and 55 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"/>	Vocational Rehab	Arrange a consult to help you find a job or make changes in the way you perform a job
<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.

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 other services in your community.

The NC Stroke Association's (NCSA) mission is to reduce the incidence and impact of stroke through relationships and collaborations to facilitate screening, education, outcome assessments, and advocacy. NCSA and **the American Stroke Association** provide a wealth of stroke prevention and caregiver resources. The **National Institutes of Neurological Disorders and Stroke** provides a wealth of information on treatment, prognosis, research, and post-stroke rehabilitation.


 www.ninds.nih.gov/disorders/stroke/stroke.htm

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 stroke. Peer Support services can be provided in informal one-on-one sessions or in small groups.


During the Rehab stay, WFBH may be able to offer a one-on-one session upon request. To learn more, please notify your care coordinator.

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


Wake Forest Baptist Health Stroke Support Group, Contact Rayetta Johnson

 336.716.3011

Guilford County Stroke Support Group, Contact Jane Edwards


 336.832.4000

Aphasia Support Group, Contact Beth Crady

 336.723.1272


Driver Rehabilitation Services include clinical assessments of a person's visual, perceptual, cognitive, physical, and behavioral abilities as it relates to safe and independent driving due to aging, an illness or injury. Two local providers of these services are:

Driver Rehabilitation Services, P.A.

 888.888.0039 or 336.697.7841


 www.info@driver-rehab.com

Wake Forest Baptist Medical Center- Outpatient NeuroRehab


 336.716-8400

The **NC Center for Cognitive Rehabilitation, LLC** is devoted to helping individuals who have cognitive impairments as a result of stroke or head injury. Cognitive rehab is functionally based and individualized to each person's specific goals. There is an emphasis on community integration and return to work.

For more information:

 336.283.9197

WFBH's **Club Independence (Club I)** is an interactive Day Recreation Therapy Program providing education, recreation, and overall health and wellness opportunities for individuals with disabling conditions, including stroke. **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 Wednesdays from 9:00am to 4:00pm at Medical Plaza Miller. Members must be 18 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

Resources for Your Continued Recovery

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 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 and try them out. Many of the devices can be loaned out for short periods of time. For more information:

☎ 336.716.8030 (Paul Eklund)

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

The **WFBH Medical Fitness Program** offers diagnosis-specific, small group exercise classes designed for anyone who has been discharged from outpatient rehab but is not ready to exercise independently. Evaluation by a physical therapist or a physician referral is required for admission to the program. Classes are offered at Medical Plaza Miller and Davie Medical Center. For more information:

☎ 336.716.8402

The **Millennium Team Stroke Recovery Center** at the Kernersville YMCA provides fitness training to stroke survivors to help regain strength, balance, and control. For more information:

☎ 336.406.6701 (Ed Vankuren)

WFBH offers **MyWakeHealth**, a patient portal that gives patients unprecedented access to their health information, without the unnecessary burden of waiting. *MyWakeHealth* allows you to get answers to your medical questions from the comfort your own home; schedule your next appointment or view details of your past and upcoming appointments; and access test results. For more information:

💻 www.mywakehealth.com

BestHealth is the Piedmont Triad's trusted source for hands-on health knowledge, classes and screenings. BestHealth is presented by Wake Forest Baptist Medical Center, 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)

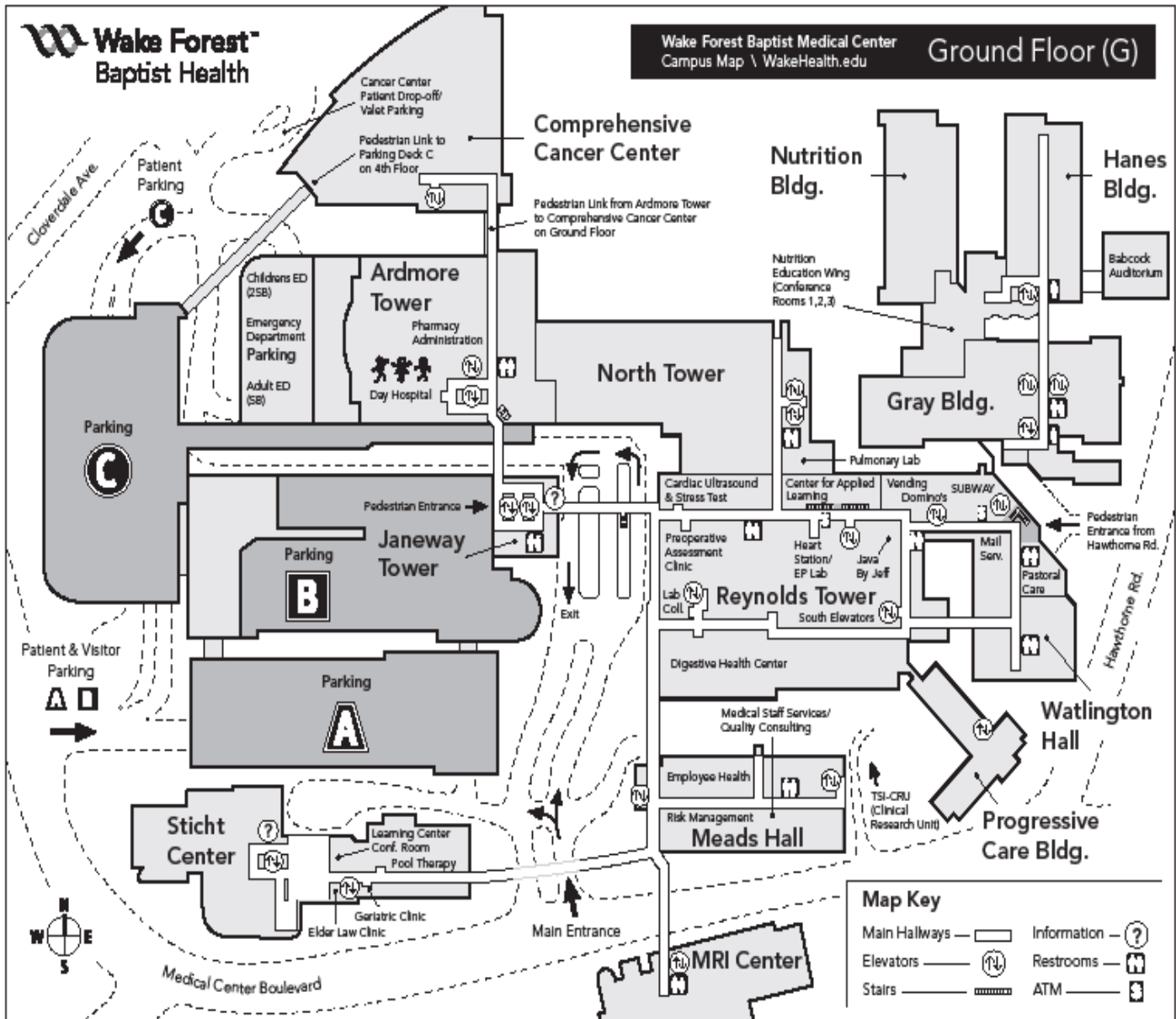
💻 www.wakehealth.edu/BestHealth

The Inpatient Rehabilitation Programs are pleased to offer a **Rehabilitation Resource Center** on the Comprehensive Inpatient Rehabilitation Unit. Please visit the center and let us know what you think. If you need assistance finding additional resources in your community:

☎ 336.716.8454 (Karen Lawrence)

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.

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
Therapy Manager: Jennifer Brown	336.713.8065
Administrative Director: Amy Crews	336.716.8434

Care Coordinators

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 inquiries about rehab services: Rehab4Life@wakehealth.edu