### Frazier Rehabilitation Institute

### **UL** Health

BRAIN INJURY | STROKE | SPINAL CORD INJURY
PEDIATRICS | NEUROLOGICAL DISORDERS
TRANSPLANT | TRAUMA | CARDIOPULMONARY
ORTHOPEDICS | BURNS | MOVEMENT DISORDERS



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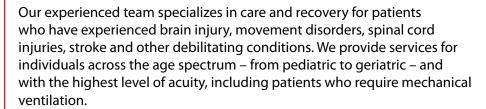
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# Welcome to UofL Health – Frazier Rehabilitation Institute

Nationally recognized for a wide-spectrum of acute care and rehabilitation expertise, UofL Health – Frazier Rehab Institute continues to make its mark as one of the best rehab hospitals in America.

Turning tragedy into triumph, Amelia Brown Frazier successfully regained her independence through physical rehabilitation after a serious auto accident. Determined that Louisville should have the nation's premier rehabilitation hospital, she served as the catalyst to bring together resources and make that dream a reality.

Now celebrating our 70th anniversary, Frazier Rehab Institute is a recognized leader in rehab care, creating an unparalleled network of services and locations. One of the guiding forces of this success has been a long-term relationship with the University of Louisville and its Medicine, Nursing, Allied Health and Speed Engineering schools. Frazier Rehab is the exclusive teaching site for the University of Louisville School of Medicine in rehabilitative medicine.



Frazier Rehab Institute has been recognized by U.S. News, Becker's Hospital Review and Newsweek as the Top Rehab Hospital in Kentucky.



# Accredited Care

Nationally recognized as a leading rehab center.



Commission on Accreditation of Rehabilitation Facilities (CARF)



Joint Commission on Accreditation of Healthcare Organizations (JCAHO)



#### **Care Provided**

Frazier Rehab Institute provides personalized and rehabilitation care to approximately 2,000 patients each year. We offer a wide range of services to help individuals with disabling conditions, including:

- Amputations
- Arthritis
- Brain injuries
- · Burns and wounds
- Cancer
- Cerebral palsy
- Chronic pain
- Joint replacement
- Mechanical ventilation

- Musculoskeletal injuries
- Neurological disorders
- · Parkinson's disease
- Pediatrics
- Spasticity
- Spinal cord injuries
- Stroke
- Transplant
- · And more

# Conveniently Located

2 hours from Cincinnati

**2 hours** from Indianapolis

2.5 hours from Nashville

4 hours from St. Louis

**5 hours** from Chicago

#### **Facility Overview**

Our state-of-the-art rehab facility is fully accessible and offers a positive patient care environment distinguished by:

- 135 Licensed Beds
- Large private patient rooms with spectacular views of Louisville
- Therapy provided in dedicated gyms on each floor
- 17 community-based, outpatient rehab locations in Kentucky and Southern Indiana
- Accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) and The Joint Commission
- Specialty Programs (CARF): Comprehensive Inpatient, Stroke, Brain Injury, Spinal Cord Injury with credentialing through 2026
- Certified in Pulmonary Rehabilitation by the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR)
- One of the top residency programs for PM&R with 10 residents onsite from the University of Louisville School of Medicine

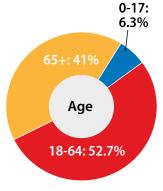




0 Through 17 Years

■ 18 Through 64 Years

65 And Older



#### By Diagnosis

■ Stroke: 24.4%:

■ Brain Injury: 21.5%

General: 13.6%

Spinal Cord: 10.2%

Orthopedic: 8.7%

■ Neurologic: 6.2%

■ Pulmonary: 5.5%

■ Cardiac: 4.8%

■ Amputee: 4.5%

■ Movement Disorders: 0.6%





# Frazier Rehabilitation Institute Utilizes Advanced Technology

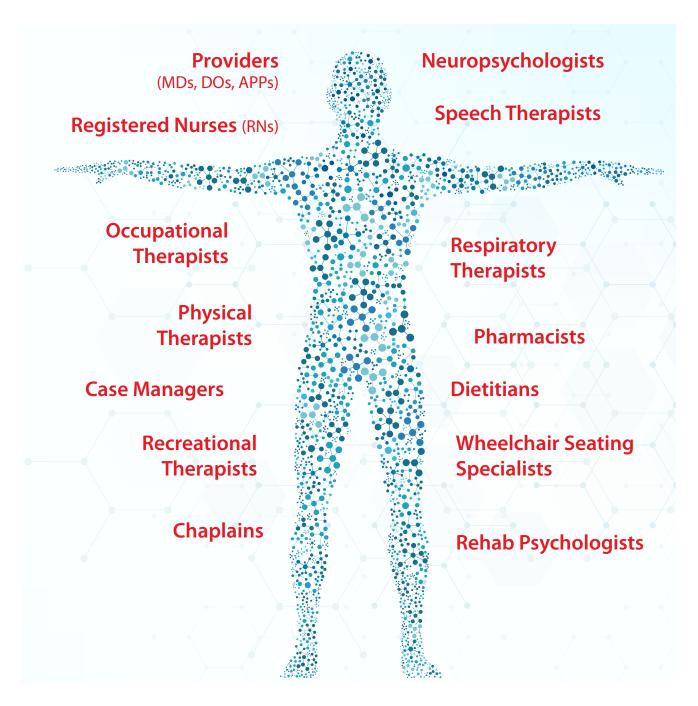
Frazier Rehab Institute offers the latest in technology to help patients push toward an expedited recovery. Our therapists are specialty-trained to use these advanced tools allowing people with disabling conditions to reach their greatest potential.

- Assistive Technology Resource Center
- Hydroworx Aquatic Therapy Pools
- · Zero G Overhead Support System
- RT300 Series FES
- Bioness L300 and L300+
- RTI XCITE System
- Bioness Integrated Therapy Systems
- TheraStride Locomotor Training Treadmills
- DS 250 Clinical Driving Simulator
- LiteGait

- GaitRite Gait Analysis System
- DARI Motion Capture
- HUR Easy Access Circuit Training System
- Power Plate Pro 6
- · Adjustable weight bench
- · Vitaglide Pro
- SCI Fit
- Nustep Recumbent Steppers
- Electrical Stimulation Systems

## Our Rehab Team

With the patient at the center of our care, the team at Frazier Rehab Institute develops rehabilitation programs based on the specific injury or condition of each individual. We bring together specialists from a variety of clinical disciplines – a multidisciplinary team – to help patients reach personalized goals. Led by our physicians who are experts in the field of physical medicine and rehabilitation, our team is focused on restoring function, independence and helping patients return to their lives.



# Center for Advanced NeuroRehab

### **CARF** Accredited Rehabilitation

Frazier Rehab Institute offers internationally accredited programs for individuals who have experienced spinal cord injury, brain injury, and stroke. Our team of clinical experts, researchers, specialty trained therapists and nurses provide exceptional care that delivers the best patient outcomes.

Through the Center for Advanced NeuroRehab, patients will receive structured, customized therapy services, which may include physical therapy, occupational therapy, speech therapy, psychology, spiritual care, case management, nurse navigation, and wellness programming.

Patients will experience all aspects of rehabilitation – physical, social/interpersonal, cognitive, and emotional. Through innovative recovery-based rehab models balanced with adaptive therapies in real-world situations, we help patients become as independent as possible. The Center for Advanced NeuroRehab supports the rehab continuum of care for individuals with spinal cord injury, brain injury, and stroke from comprehensive integrated inpatient rehab to outpatient rehab and back into the community.







#### **Brain Injury Program**

Our Brain Injury Program works to restore individuals to optimal levels of physical, cognitive and emotional recovery following brain injury. Accredited by the Commission on Accreditation for Rehab Facilities (CARF), the program also focuses on prevention, awareness and wellness through community partnerships. Patients and the community are offered assistance through specialized resources and support groups.

The program serves patients of all ages and at all stages of recovery, treating both traumatic and non-traumatic brain injury survivors.



#### **Stroke Program**

The Stroke Program provides comprehensive services to individuals who have experienced a stroke. Serving patients of all ages, our goal is to restore individuals to optimal levels of physical, cognitive, and emotional recovery following stroke. We also partner with community groups that serve to increase wellness and awareness of stroke prevention.

Because UofL Health offers a full continuum of care for individuals who experience stroke, many patients and families are introduced to medical rehabilitation services while recovering in the acute care hospital. Depending on the rehabilitation needed, many patients transfer to Frazier Rehab Institute for inpatient rehabilitation. Other patients are referred directly to outpatient community-based rehabilitation or home-based care. A Frazier Rehab admission liaison helps coordinate the patient's care plan and communicates this to patients and families, to begin establishing a "roadmap" of the recovery plan.



### **Spinal Cord Injury Program**

Frazier Rehab Institute's Spinal Cord Injury Program is one of the nation's leading rehabilitation programs providing comprehensive treatment with state-of-the-art technologies designed to maximize functional recovery and independence. Our transdisciplinary approach bridges levels of care that empower patients, the workforce, and the community to prevent complications experienced by people living with spinal cord injury.

Within our academic medical campus in downtown Louisville, patients with spinal cord injury have access to our acute inpatient spinal cord program, specialized outpatient rehab, the Neuroscience Collaborative Center and research opportunities, and our fully accessible Community Fitness and Wellness gym.



### **PATIENT STORY**

# Overcoming After Critical Injury

Louisville Metro Police Department (LMPD) Officer Nick Wilt

July 28, 2023 marked a pivotal day for UofL Health and the rest of the Louisville community. LMPD Officer Nickolas Wilt was officially released from Frazier Rehabilitation Institute after four long months.

The 26-year-old was responding to a shooting at Old National Bank on April 10, 2023, when he suffered a gunshot wound and suffered a traumatic injury to the head. He was rushed to UofL Health – UofL Hospital where he remained in critical condition for a month.

Wilt was then transferred to Frazier Rehabilitation Institute on May 10, where he underwent neuro and physical rehabilitation.

Jason Smith, M.D., chief medical officer at UofL Health leaves no hesitation in discussing the everlasting impact officer Wilt's condition has brought to this organization.

"Officer Wilt is the epitome of what UofL Health could become," said Dr. Smith. "His life was touched at Frazier Rehabilitation Institute, which has brought him to where we are today."

"We are a team. I represent tens of thousands of people that work every day to save the lives of anyone who comes through our doors," said Dr. Smith. "Our rehabilitation program does a phenomenal job of picking up the pieces to get them back to their families, and their home."

Officer Wilt's twin brother, Zack praises UofL Health for their tireless efforts in ensuring his brother's speedy recovery.

"Frazier Rehab, UofL Hospital, UofL Health – Jewish Hospital, everyone has been truly amazing to our family and the work they do is nothing short of miracle," said Zack. "[Nick] knows he's got a long road ahead, but with the help of Dr. Kaelin and everyone here he knows he is going to get back to it. Our family could not be more thankful."

Darryl Kaelin, MD, medical director of Frazier Rehab, expresses his gratitude to the facility's dedication and tireless efforts to ensure Wilt's speedy recovery, and the remarkable improvements Wilt has made throughout his stay.

"The city of Louisville should really be proud to have such an outstanding facility and such outstanding physicians in this community," said Dr. Kaelin. "There are very few programs in the country like ours who can take care of an individual with such severe traumatic brain injuries. This is a true tribute to his interdisciplinary rehabilitation team, which includes physicians, nurses, physical, occupational and speech therapists, and nutrition specialists."

Officer Wilt is still recovering from a traumatic brain injury and will continue his therapy at Frazier Rehabilitation Institute through outpatient care.



To see more about Officer Wilt's story, follow this QR code for direct access.



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**Darryl Kaelin, M.D.** *Medical Director, UofL Health – Frazier Rehabilitation Institute* 





# **Specialized Clinical Services**

Every patient is different and needs different support. These specialized services at UofL Health – Frazier Rehab Institute are offered to patients based on their unique care plan and goals.

#### **Amputee Rehab**

An amputation to an extremity may occur due to trauma or disease. Having an extremity amputated is a life-changing event. UofL Health – Frazier Rehab Institute provides comprehensive treatment and addresses lifestyle changes to promote independence and functional mobility. Our treatment approach is for all levels of amputation – both upper and lower extremities – and provides post-operative amputation treatment as well as prosthetic training. Individuals who have amputations are provided therapy (from acute care through outpatient rehab) in order to return to their home and community environments. This involves not only the patient, but also the family and friends who make up their support network.

#### **Cancer Rehab**

Advanced oncology rehabilitation services are for cancer survivors undergoing treatment or living with its aftermath. Survivors commonly experience symptoms such as lymphedema, fatigue, weakness, insomnia, memory loss, fear, anxiety and depression. It is our goal to help patients feel well and resume normal day-to-day activities, which is essential to enjoying a good quality of life for survivors and their families.

### **Community Fitness & Wellness (CFW)**

CFW provides accessible activity-based interventions and exercise to improve health and quality of life for individuals within our community living with physically disabling conditions. The gym offers the latest in wheelchair–accessible cardiovascular and strength-training equipment. The highly-trained staff provide exercise modifications for each client to work toward health, wellness, and fitness goals.

#### **Movement Disorders**

The Movement Disorders Program is a comprehensive, interdisciplinary program that brings all disciplines together to provide treatment – all in one location. The program follows the same high standard of care for all the diagnoses it serves. Patients in the program receive expert clinical and therapeutic care from movement disorder and rehab specialists while having access to leading-edge research opportunities.

The Movement Disorders Program specializes in the evaluation and treatment of movement disorders, including Parkinson's disorders, tremors, dystonia, myoclonus, tics and ataxia.

#### **Pediatric Rehab**

Frazier Rehab Institute has been providing comprehensive pediatric rehabilitation services since it first opened in 1954. The Pediatric Rehab program provides a wide range of services to children and adolescents of all ages, birth to 17. Pediatric rehab services span the continuum of care, from the acute inpatient hospital setting to outpatient care. Treatment is coordinated by a team of therapists whose goal is to improve functional outcomes while creating a safe and fun way for children to improve cognition, physical status, and social skills Frazier Rehab offers an emphasis on the family, including ongoing family teaching and education, a focus on school re-integration, collaboration with public and private schools to ensure successful maintenance of academic and social needs, and collaboration with community and regional providers to ensure coordinated, continuous care.



### **Pulmonary Rehab**

Frazier Rehab's Pulmonary Rehab Program serves patients with chronic bronchitis, emphysema, asthma, pulmonary fibrosis, lung cancer, thoracic surgery, post-polio syndrome and other disorders that compromise respiratory function. Our goal is to restore the patient to the highest possible level of independent function. This is accomplished through an individually tailored, multidisciplinary program formulated on accurate diagnosis, exercise therapy, psychosocial support and education. Our Phase I (inpatient) and Phase II (outpatient) programs are nationally certified by the American Association of Cardiovascular and Pulmonary Rehabilitation.

### **Transplant Rehab**

Frazier Rehab offers a continuum of care for patients who've experienced solid organ transplants at UofL Health – Trager Transplant Center. Our team helps patients regain strength and mobility, preparing them to return home and back to their active lifestyles.

#### Trauma Rehab

Restoring function and independence after a major trauma often requires rehabilitation. Frazier Rehab provides multidisciplinary interventions specifically designed to address the whole person and help patients resume as much of their previous life as possible.

# **Breathing New Life**

### Michaela Dailey

Michaela Dailey's life was suddenly disrupted when she realized she was struggling to stay awake. After sleeping for two days straight, Dailey made a trip to the emergency room in Elizabethtown, Ky. where doctors diagnosed her and other members of her family with COVID-19. Dailey was 32 weeks pregnant.

Shortly after her arrival at the hospital, doctors determined Dailey's situation was dire and they needed to deliver her baby. She was quickly placed on a ventilator.

Dailey's condition continued to worsen and the hospital physicians made a call to Victor Van Berkel, M.D., at UofL Health. A thoracic surgeon, Dr. Van Berkel was able to get emergency privileges at Hardin Memorial Hospital where he placed Dailey on extracorporeal membrane oxygenation (ECMO) – then transported her to the Cardiovascular Intensive Care Unit (CVICU) at Jewish Hospital, where she stayed for a month.

When Dailey woke up, one of her worst fears turned into one of her biggest life blessings. "The last thing I remembered was saying, "Where's my baby?," said Dailey. "But then I looked at the picture on the wall, and I knew she had been born."

While it was Van Berkel and the CVICU that Dailey credits for saving her life, it was the team at Frazier Rehabilitation Institute that gave her the strength she needed to take care of her new baby and family.



To see more about Michaela's story, follow this QR code for direct access.

After discharge from Jewish Hospital, Dailey became a patient in Frazier Rehab Institute's nationally certified Phase I & 2 Pulmonary Rehab Program. The program serves patients with a variety of pulmonary conditions that compromise respiratory function, such as emphysema, asthma, pulmonary fibrosis, lung cancer, transplant, and COVID-19.

"The program helps individuals build up their strength," said Peggy Cox, RN, RRT, Manager of Pulmonary Rehab at Frazier Rehab Institute. "It takes time and persistence to keep pushing. We teach individuals what to do while they are in the hospital and when they go home."

UofL Health's lifesaving work and continuum of care not only gave Dailey a new chance at life, but to get back to work and care for her family.

Dr. Van Berkel remarked, "I'll always remember seeing her in the hospital on the day that she got to hold her baby for the first time. It was a pretty awesome day for everyone."





# Research Highlights

#### **Neuroscience Collaborative Center**

UofL Health - Frazer Rehab Institute's Neuroscience Collaborative Center is a joint partnership between The Kentucky Spinal Cord Injury Research Center (KSCIRC) and the University of Louisville Department of Neurological Surgery and Division of Movement Disorders. The center focuses on research in neurological disorders including movement disorders and spinal cord injury.

### **RETAIN Kentucky**

Retaining Employment and Talent after Injury/ Illness Network (RETAIN) is a free service for Kentucky residents who have experienced an illness or injury outside the workplace to help them obtain services or accommodations so they can continue working. Kentucky is one of only five states to receive funding from the U.S. Department of Labor to expand the program in its second phase. Once an individual is enrolled in RETAIN, a returnto-work coordinator helps them access existing resources, such as workplace accommodations or assistance with transportation, rent or utilities. The coordinator will help the individual develop a return-to-work plan that provides personalized support including assistance with health care and employer communications.

### **Autogenic Feedback Training** Exercise (AFTE) in people with **Spinal Cord Injury**

AFTE is a nonpharmacological countermeasure that involves training subjects to control physiological responses in stressful and relaxing environments (i.e., biofeedback). The protocol uses software designed by NASA and used in space crews. People exposed to microgravity (e.g., astronauts), inactivity or bed rest suffer many physiological impairments similar to SCI. In particular, we are investigating the effects of AFTE on autonomic responses, including blood pressure and gastric motility modulation, thermoregulation and wellbeing. The material is based upon work supported by NASA Kentucky under NASA award number 80NSSC20M004.

### **Kosair Charities Center for Pediatric NeuroRecovery**

The University of Louisville's Kosair Charities Center for Pediatric Neurorecovery was established in 2014 with generous financial support from Kosair Charities and the University of Louisville. The Kosair Charities Center for Pediatric NeuroRecovery conducts research and translates findings to clinical application of activity-based therapies in the pediatric population. Clinical care is provided at Frazier Rehab Institute in association with the Spinal Cord Medicine program. For more information about this program and referrals specifically for pediatrics, contact us at: kidskickparalysis@louisville.edu.

# From Paralysis to Walking

#### Chris Jackson

Chris Jackson has learned to walk again after being paralyzed in a car crash for nearly three years.

Chris was an avid Louisville football fan attending the team's last home game of the 2018 season with his son, when a car ran a stop sign and hit him, leaving him paralyzed.

"I was basically paralyzed from my neck down to due to a C3 injury to my spinal cord," said Chris. "Life became tough, but I didn't quit."

Chris was immediately transferred to UofL Hospital where he had to have surgery performed on his neck and was later transported to Frazier Rehabilitation Institute for the remainder of his recovery.

When Chris arrived, doctors learned he had suffered a C3 injury to the spinal cord, which is the mid-cervical vertebrae (C3, C4, and C5). The injury affects the respiratory muscles and the ability to breathe. Symptoms include muscle weakness, loss of muscle movement in chest, arms, and legs, breathing problems and loss of bowel and bladder function.



Camilo Castillo, M.D., specializes in spinal cord injuries at UofL Health. He also serves as the program director for the Spinal Cord Injury Program at Frazier Rehabilitation Institute. Dr. Castillo worked on Jackson's case.

"We have a program here with navigators that help patients here throughout the process," said Dr. Castillo. "I always tell my patients the success of this process is caring for you. It takes a village, literally."

Chris was eager to get his recovery process moving, but he knew he had to stay patient knowing the long road to recovery he had ahead of him. "[life] knocks you down sometimes but you got to find a way to get back up," said Chris. "If you want part of it back, you have got to reach out and grab it."

Dr. Castillo commends the spinal cord injury program for giving patients the best care possible in their recovery, so they can return to new and improved versions of themselves.

"We capture these issues early so they can still stay in therapy, improving and avoiding complications that lead them back to the hospital," said Dr. Castillo. "This is done in cancer patients, and we implement it now in spinal cord injuries."

Chris maintains a positive outlook on his life, and credits it to his medical team at UofL Health and Frazier Rehab Institute.

"Your life is not over. It's just a new life beginning," said Chris. "The incredible people you meet here do incredible things. Put your trust in them and you'll be ok."

After inpatient and outpatient rehab, Jackson continues to move forward in his recovery at Frazier Rehab's Community Fitness & Wellness gym, a fully accessible gym with state-of-the-art equipment and professionally trained staff, offering specialized, activity-based exercise interventions to individuals with disabling conditions.



To see more about Chris' story, follow this QR code for direct access.

# **UofL Health Continuum of Care**

UofL Health is a fully integrated regional academic health system with more than 13,000 team members, eight hospitals, four medical centers, nearly 200 physician practice locations, more than 1,000 providers, Frazier Rehab Institute, Brown Cancer Center and Eye Institute. With our vast network of community and academic physicians, we bring expertise, care and compassion to our patients throughout Kentucky.

As a leading academic health system, we've attracted specialists from every discipline—seasoned caregivers who have experience with a broad range of complex medical and surgical issues. This means we treat the simplest medical issues with the same level of care and expertise as we do the more complex issues. Not only do we bring our knowledge to our patients, but we collaborate with professionals throughout the country and in some cases the world, ensuring that you have the right treatment options for whatever health issue you may be facing.





### **Outpatient Services**

UofL Health – Frazier Rehabilitation Institute is the regional leader in outpatient physical, occupational and speech therapy, comprehensive neurorehabilitation, and is the Official Sports Rehab Provider for the Louisville Cardinals. From infants to geriatrics, weekend warriors to high school, collegiate or professional athletes – Frazier Rehab provides renowned care to patients covering a full range of diagnoses at multiple locations across the region.

#### Our highly-skilled therapists have specialized training in:

- Adaptive driving training
- Balance/vestibular conditions
- · Brain injury
- Concussion management
- Driving evaluation
- Dry needling
- Functional capacity evaluation
- · Hand therapy
- Lymphedema management
- Neurodegenerative diseases
- Occupational medicine

- Orthopedics
- Pain neuroscience
- Parkinson's disease
- Pediatrics
- Pelvic health
- Spinal cord injury
- · Sports medicine
- · Stroke rehab
- Work hardening
- Wound care



**Our Mission** 

As an academic health care system,

# **WEWILLTRANSFORM**

the health of the communities we serve THROUGH COMPASSIONATE, INNOVATIVE, patient-centered care.

### Darryl L. Kaelin, M.D.

Darryl L. Kaelin, M.D., is the Medical Director at UofL Health – Frazier Rehabilitation Institute. A graduate of the University of Louisville School of Medicine, Dr. Kaelin completed an internship at Kettering Medical Center Network and his residency at Medical College of Virginia Hospitals in Physical Medicine & Rehabilitation (PMR).

His areas of specialization include traumatic brain injury, concussion, stroke rehabilitation and sports medicine. Dr. Kaelin also serves as a professor for the University of Louisville School of Medicine, Department of Neurosurgery, and leads the PMR Residency Program – one of the nation's top residency programs.





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