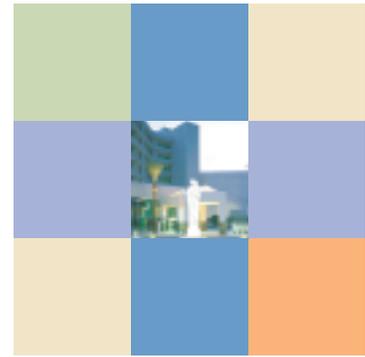


The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



Executive summary

Barrow Neurological Institute provides a wide range of rehabilitative services to patients recovering from spine and brain disorders. However, at this time, Barrow lacks one component of a truly world-class rehabilitation program—a comprehensive aquatic therapy program. Aquatic therapy has been proven to be tremendously beneficial to neuro rehabilitation patients.



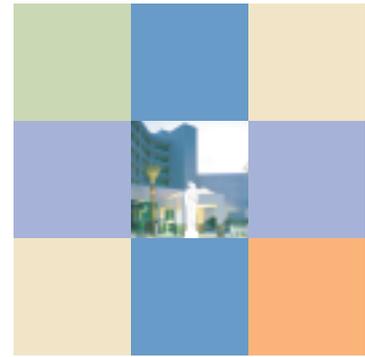
The existing neuro rehabilitation pool at Barrow is not conveniently located, is not equipped to accommodate as many patients as needed, and can only be used a few months of the year because it is outdoors, leaving patients exposed to the elements.

The staff of the Deborah and Bruce Downey Neuro Rehabilitation Center hopes to build a new pool to serve as many patients needing this useful therapy as possible. Their dream will become a reality only through the support of Barrow's friends and benefactors.

Example of a therapeutic pool

Courtesy Orcutt/Winslow

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Barrow Neurological Institute

Barrow Neurological Institute at St. Joseph's Hospital and Medical Center in Phoenix, Arizona, is recognized around the world for its advanced care of brain and spine disorders, its groundbreaking biomedical research, and its sought-after residency and fellowship programs. *U.S. News & World Report* regards Barrow as one of the top 10 neuroscience centers in the country.

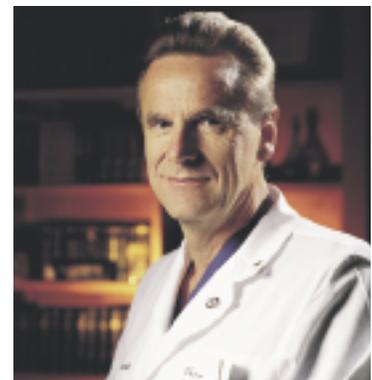
Barrow's mission is to advance neuroscience knowledge through excellence in patient care, research, and medical education. Robert Spetzler, MD, a world-renowned neurosurgeon, serves as the Institute's director. In 2006, Barrow moved into the 430,000-square-foot Barrow Neuroscience Tower, perhaps the most technologically advanced facility of its kind in the world.

Neuro rehabilitation at Barrow

Neurology and neurosurgery are primary service lines at St. Joseph's Hospital and Medical Center, and the hospital's Barrow Neurological Institute is known for its excellent clinical programs.

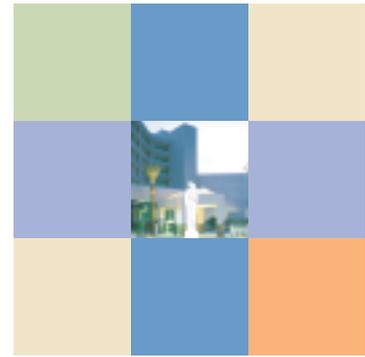
Specialists at Barrow provide diagnosis, treatment, and rehabilitation for a wide range of spine and brain disorders, including neurovascular disorders, stroke, Parkinson's disease, Alzheimer's disease, brain injury, spine disorders, epilepsy, and many others.

However, a successful surgery or procedure is often just the first step down the road to recovery, which is why rehabilitation services are crucial.



**Robert Spetzler, MD, Director,
Barrow Neurological Institute**

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Neuro rehabilitation services at Barrow

The hospital offers a variety of neuro rehabilitation services to its patients.

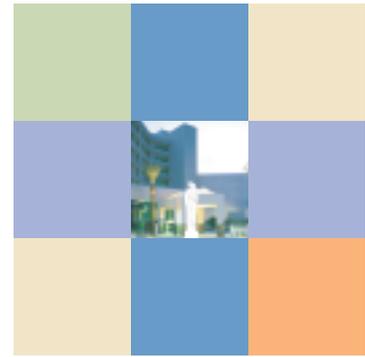
- For in-house patients needing rehabilitation, the **Deborah and Bruce Downey Neuro Rehabilitation Unit** offers the most comprehensive program in the state. The newly renovated and relocated unit offers 52 patient beds, five of which are dedicated to pediatric patients and five of which are in a secure area dedicated to patients with traumatic brain injuries. The unit offers high-quality medical care, and physical, speech, occupational, and recreational therapy in one centralized setting.
- **Outpatient Rehabilitation**, which is accredited by the commission on Accreditation of Rehabilitation Facilities, offers individualized treatment plans, flexible therapy scheduling, direct training with employees and teachers during home and community reentry transitions, coordinated team approaches to patient rehabilitation, and education about community programs for patients and families. Outpatient Rehabilitation services have grown by 50 percent during the last four years, averaging 2,000 visits for therapy each month.
- **The Center for Transitional NeuroRehabilitation** offers intensive, long-term treatment for older adolescents and adults with brain injuries. The program features a holistic approach to the treatment of cognitive, language, physical, emotional, neuropsychological, and vocational needs. The center focuses on returning patients to independence in the home and community, and return to work or school.



Physical therapist Lori Brickner works with a patient in the Center for Transitional Neuro-Rehabilitation.

Even with all that is offered by Barrow, the neuro rehabilitation services at the hospital lack one major element: a comprehensive aquatic therapy program.

The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



The current pool is not enclosed, which severely limits its use.

What is aquatic therapy?

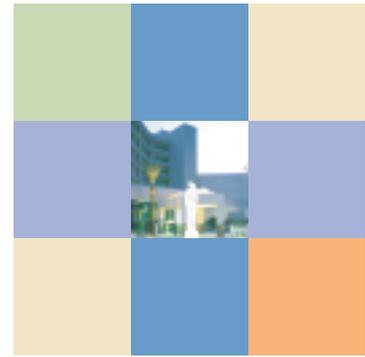
An important component to the rehabilitation of patients with neurological injuries is the ability to provide therapies and recreational interventions in an aquatic environment.

Aquatic interventions offer patients the ability to move in a gravity-eliminated environment, the opportunity for experiencing favorable sensory stimuli, and the clinical benefits of buoyancy with resistance training.

Therapeutic exercises performed in a water-based environment can be beneficial for a variety of individuals with musculoskeletal and neuromus-

cular disorders. Aquatic-based therapy augments traditional land-based therapy by offering an ideal setting to initiate treatment for patients who have weight-bearing restrictions, difficulty controlling the torso, which is needed for balance, or excessive pain that is exacerbated by the pressure of body weight. Resistance from the water during exercise provides a safe environment for addressing strengthening, movement, and postural retraining.

The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



Why is a new pool needed at Barrow?

Clinicians at Barrow attempt to incorporate aquatic-based interventions into treatment plans for patients of all ages with a variety of diagnoses: stroke, brain injury, spinal cord injury, back pain syndromes, injuries requiring restricted lower extremity weight bearing, and other musculoskeletal dysfunction.

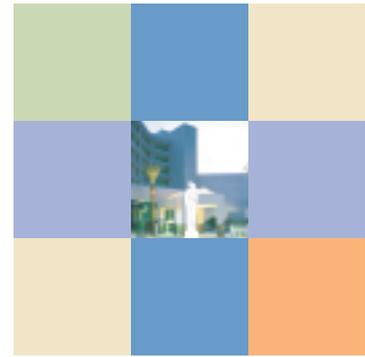
While Barrow has a pool used for aquatic therapy, clinicians' attempts to fully utilize these treatments are hindered by existing logistical complications at Barrow:

- The location of the current pool on 7th Avenue is not close to any of the rehabilitation treatment areas: the Bruce and Deborah Downey Neuro Rehabilitation Center, the Center for Transitional NeuroRehabilitation, or Outpatient Rehabilitation. This means patients often must board a van and be transported to and from the pool—a task that can be difficult and that wastes critical rehabilitation time.
- The design of the pool area is not conducive to sessions during the summer months because it is not enclosed, leaving patients exposed to the elements. Therefore, the pool is used only a few months out of the year because of extreme temperatures. It also may be shut down abruptly due to storms.
- Another drawback to the existing pool is that it was not designed for therapeutic use and so it does not accommodate people with special needs as it should. For example, it does not have all of the special lifts, sloped floors, or sunken ledges that would make using the pool easier for rehabilitation patients.



The current pool is not located close to any of the rehabilitation areas at Barrow.

The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



The new Ashlyn Dyer Aquatic Center for rehabilitation services

The new aquatic therapy center at Barrow will be tailored to fit the needs of the patients using it. Some of the planned features for the center include:

- Perhaps most importantly, an enclosed and climate-controlled facility for use year round.
- Two lifts so more patients can get in and out of the pool at the same time.
- Stairs customized to suit individuals with special needs. The current pool was once a hotel pool and has short, steep stairs that are difficult to use.
- A pool cleaning system that is safer for patients. Chlorine-based systems can be dangerous to special-needs patients because toxic fumes often collect near the water's surface, resulting in individuals breathing them in during therapy.
- Locker rooms to allow patients and families to change on site.



Courtesy Orcutt/Winslow

Serving the community

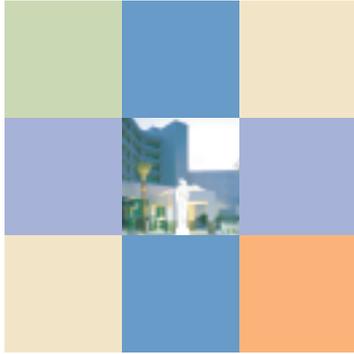
The Ashlyn Dyer Aquatic Center would serve more than the inpatients and outpatients needing neurological rehabilitation at Barrow. The new proposed location on the south side of Merrell Street could conveniently serve several other users, including Children's Rehabilitation Services, Parkinson's patients, orthopedics patients, the Arthritis Foundation, and Ryan's House, a palliative and hospice care facility for children.

Several pools in the Valley have closed in recent years, leaving fewer options for patients in need of these services. Barrow could open its pool to community partners. Individuals needing maintenance care also could visit the pool for a small fee.

These potential uses would make the pool a facility that would benefit a whole community of people in need of aquatic rehabilitation.

Example of a therapeutic pool

**The Ashlyn Dyer Aquatic Center
at Barrow Neurological Institute**



Budget for Construction of the Ashlyn Dyer Aquatic Center

Room	Area in square feet	Quantity	Total square footage
Waiting	15	10	150
Reception	80	1	80
Office	90	1	90
Equipment storage	210	1	210
Female locker room/toilets/showers	300	1	300
Male locker rooms/toilets/showers	300	1	300
Electrical room	80	1	80
Mechanical room	90	1	90
NET AREA FOR PHYSICAL THERAPY (PT)			1,300
GROSS AREA FOR PT (net x 1.3)			1,690
Pool 30' x 40'	1,200	1	1,200
Deck	1,588	1	1,588
Exterior equipment yard	400	.05	200
NET AREA FOR PT			2,988
GROSS AREA FOR PT (net x 1.1)			3,287
TOTAL GROSS AREA			4,977
	<u>Total square footage</u>	<u>\$/square foot</u>	<u>Total cost</u>
	4,977	\$310	\$1,542,808.00

Note: This budget is an estimate that is based on similar projects. The actual budget / cost would be determined by the general contractor.

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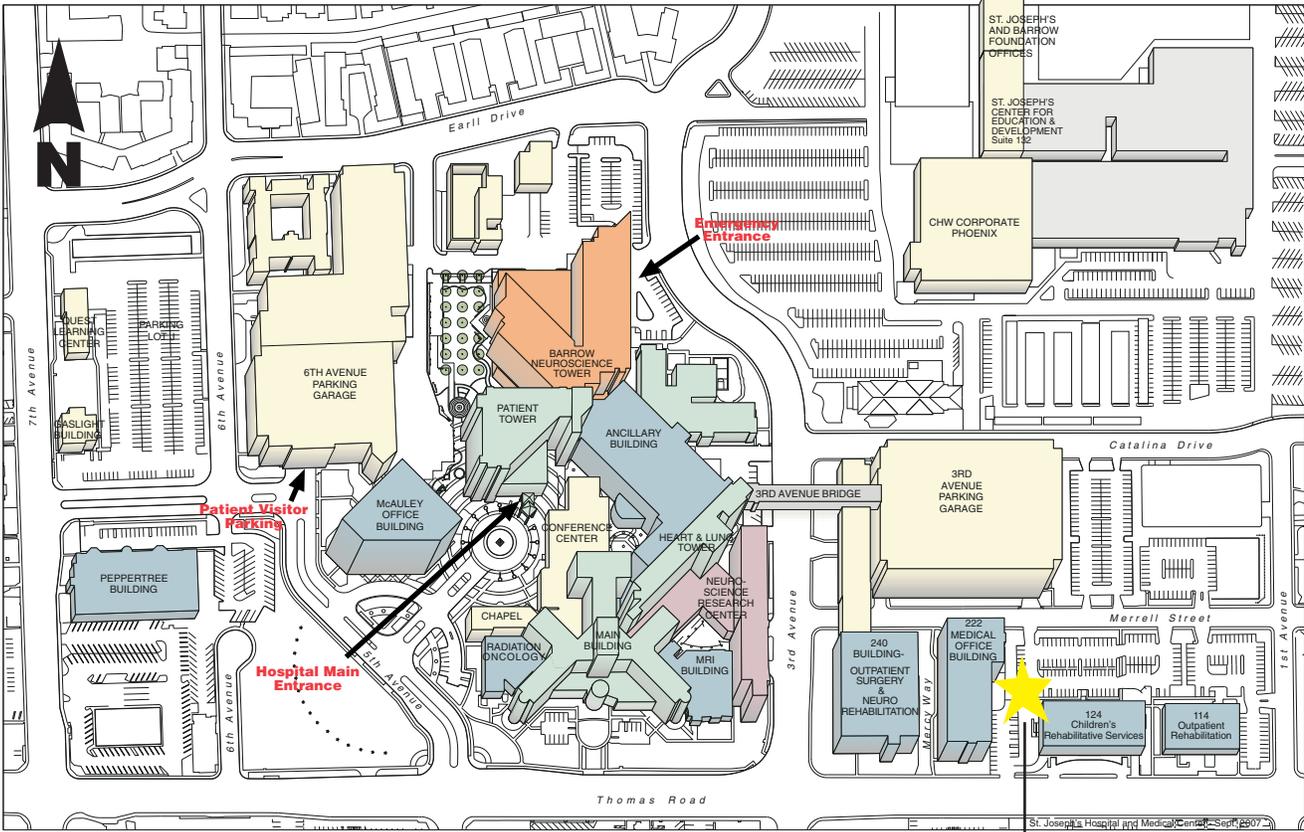


Campus Map



St. Joseph's Hospital and Medical Center

A member of CHW



Proposed location of the new Ashlyn Dyer Aquatics Center on the campus of St. Joseph's.

The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



Ashlyn Dyer



On March 2, 2006, Ashlyn Dyer was the victim of a hit-and-run accident while running through the Presidio in San Francisco.

After spending 10 days in the hospital on life support, Ashlyn passed away as a result of her severe traumatic brain injury. She was 27 years old.

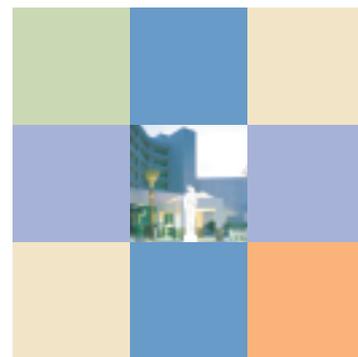
The Dyer family lives in California and Phoenix and decided they wanted to leave some kind of legacy for Ashlyn in both places. They started the Ashlyn Dyer Foundation in California to help raise awareness about traumatic brain injury and have made a generous gift to Barrow Neurological Institute in Phoenix to build the Ashlyn Dyer Aquatic Center.

“Phoenix has been good to us. A lot of the money that’s been given to our foundation comes from Phoenix, and we want a chance to give it back,” said Ashlyn’s mother, Marsha Dyer.

More than 50,000 people die each year from traumatic brain injury, and most hospitals do not have adequate resources to treat these patients. At least 5.3 million Americans are living with disabilities related to their injury.

Marsha says that Ashlyn was an avid swimmer and that if Ashlyn had lived, she would have been using the new pool at Barrow Neurological Institute as part of her rehabilitation.

The Ashlyn Dyer Aquatic Center at Barrow Neurological Institute



Help us build the Ashlyn Dyer Aquatic Center

By contributing to this project, you will enhance the level of care for patients at Barrow and in the community who are working their way back from illnesses and injuries that have changed their lives. Your donation will positively influence patients' recovery by providing a vital tool for the rehabilitation process.

Thank you for considering
this proposal.



Courtesy Orcutt/Winslow



Courtesy Orcutt/Winslow

These photos are examples of what the
aquatics center might look like.