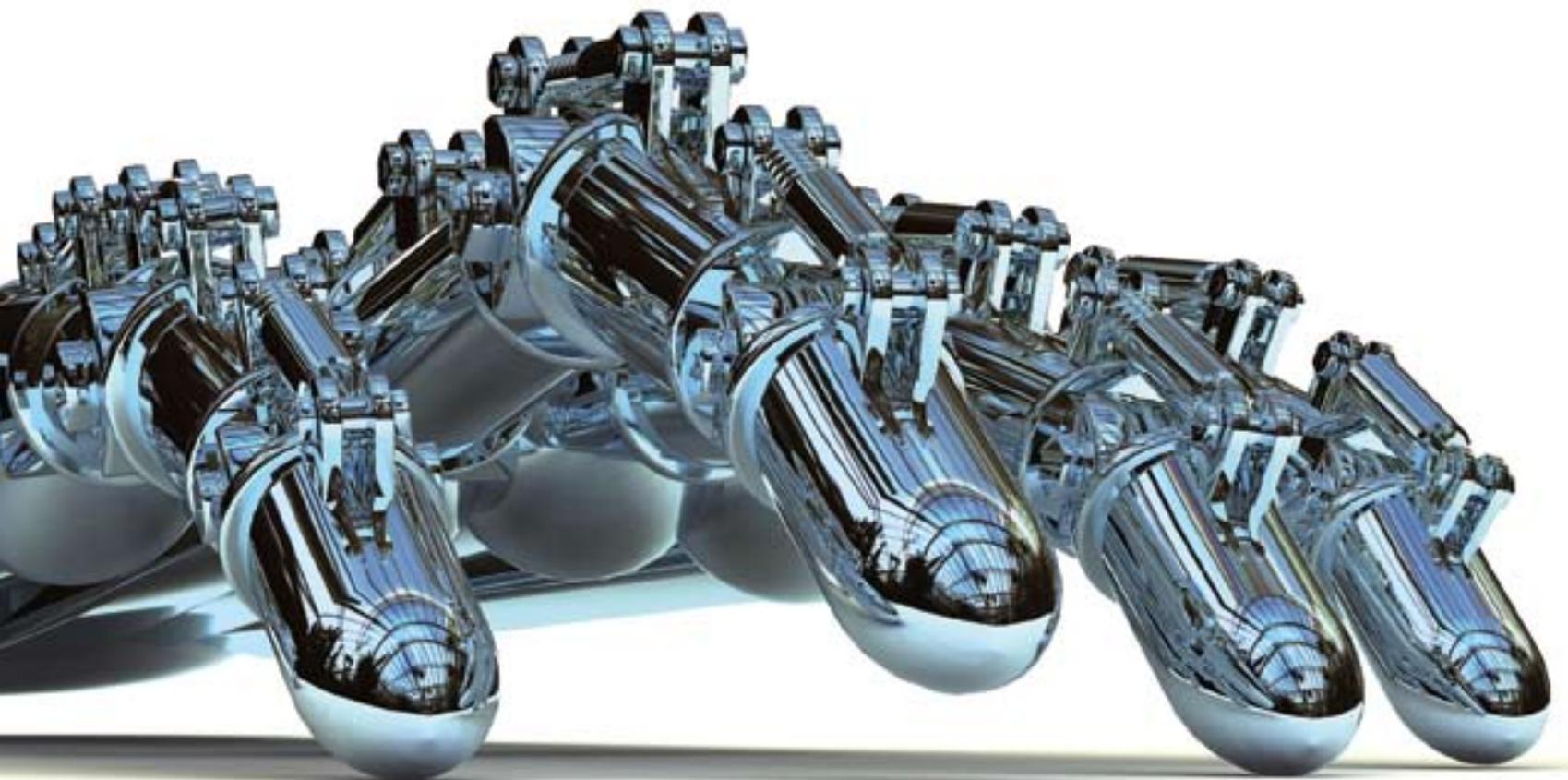


WINTER 2007

ways AND means

METHODIST REHABILITATION CENTER



RESEARCH EDITION

REACHING FOR NEW DISCOVERIES



P2

Building on Success

Framework in place for another decade of research excellence.



P6

Scans Provide Scant Info

CT images prove poor predictors of cognitive outcome.



P8

Silent Risk Revealed

Study underscores need for acute care blood clot screenings.

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Editor and Writer - Susan Christensen

Graphic Designer and Art Director - Talamieka McNeil

Methodist Rehabilitation Center President and CEO - Mark A. Adams

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Methodist Rehabilitation Center provides comprehensive medical rehabilitation programs for people with spinal cord and brain injuries, stroke and other neurological and orthopedic disorders. The 124-bed state-of-the-art hospital in Jackson is one of only 16 hospitals in the country designated as a Traumatic Brain Injury Model System by the National Institute on Disability and Rehabilitation Research and is only one of two in the state accepted into the prestigious Council of Teaching Hospitals. In 2000, it became the first Mississippi hospital to be named one of America's best hospitals by U.S. News and World Report.

Mission Statement | In response to the love of God, Methodist Rehabilitation Center is dedicated to the restoration and enhancement of the lives of those we serve. We are committed to excellence and leadership in the delivery of comprehensive services.

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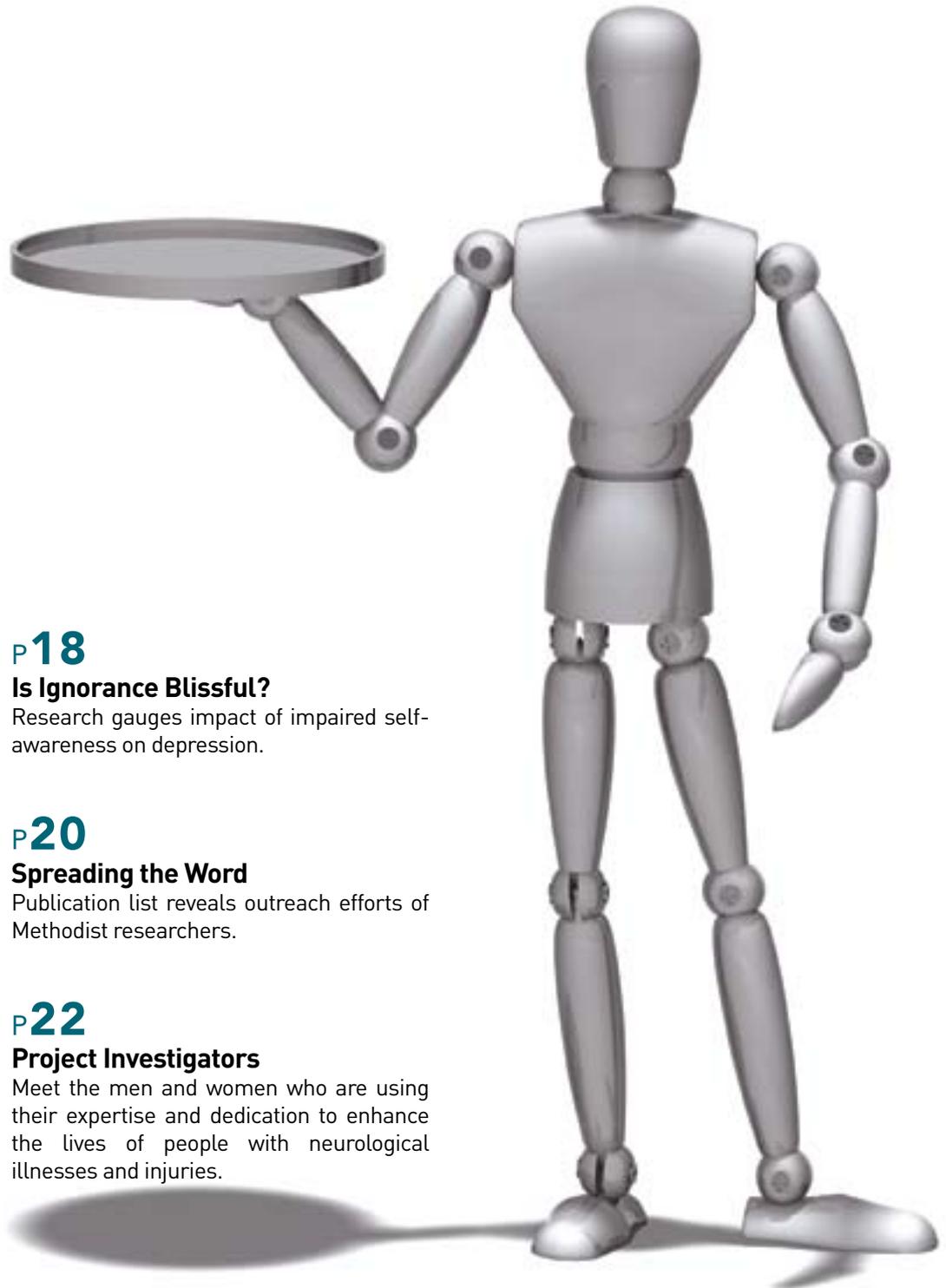
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Meet the men and women who are using their expertise and dedication to enhance the lives of people with neurological illnesses and injuries.





Researchers build framework for another Decade of excellence

Looking back on the last decade of research at Methodist Rehabilitation Center, it's hard to choose just one highlight.

The accomplishments of the Center for Neuroscience and Neurological Recovery (CNNR) include receiving more than \$6.5 million in research funding, publishing more than 140 peer-reviewed articles or book chapters and making more than 250 presentations at conferences across the world.

Still, the most significant moment in the last 10 years may have been the unheralded arrival of three wise men from the West — Dr. Stuart Yablon, Dr. Dobrivoje Stokic and Dr. Mark Sherer.

The trio of Texas Medical Center researchers joined the Methodist Rehab staff in 1996 and 1997, and their pioneering efforts set the pace for the many successes to come.

In the beginning, though, it might not have seemed the best of moves for the up-and-coming scientists. They were leaving a Houston health center that bragged of being the largest in the nation to build a research program in a state hardly known for its abundant resources.

Yet Dr. Yablon — the first to make the leap — said he was intrigued by the chance to truly make a difference in a region of the country that had long been overlooked.

“The opportunity to create something notable, here in Mississippi, was my incentive to come here,” said Dr. Yablon, medical director of Methodist Rehab’s brain injury program. “This is an underserved area of the country, and we had a commitment from administration to build both a research and clinical program for people with neurological injuries.”

It wasn’t long until that commitment catapulted the program into the spotlight. Following Dr. Sherer’s arrival in 1997, Methodist Rehab earned its first designation as a TBI model system site from the National Institute on Disability and Rehabilitation Research (NIDRR). The honor came with \$1.3 million in federal funding and the chance to collaborate with some of most prominent researchers in the rehabilitation field.

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Every day a team of clinician-scientists at the hospital's Center for Neuroscience and Neurological Recovery works to translate basic neuroscience research into useful therapies that benefit patients suffering from neurological illnesses and injuries.

THE ACCOMPLISHMENTS OF THE CENTER FOR NEUROSCIENCE AND NEUROLOGICAL RECOVERY INCLUDE:

- Receiving over \$6.5 million in federal, state, foundation and industry funding.
- Publishing over 140 peer-reviewed research articles or book chapters.
- Making over 250 presentations at national and international conferences.
- Collaborating with scientists across the world.
- Being one of 16 centers designated a Traumatic Brain Injury Model System site in 2003, and one of 17 in 1998.
- Garnering international attention for being the first to report a link between West Nile virus and a polio-like paralysis.



“A central mission of the CNNR is to provide objective evidence about what works whether we’re evaluating promising new therapies or challenging traditional practices.” — Dr. Dobrivoje Stokic



“Everybody knows about the TBI model systems and to suddenly appear on that list gave us a huge amount of recognition,” said Dr. Sherer, director of neuropsychology at Methodist Rehab and project director of the TBI Model System of Mississippi. “We went from no federal grants to three federal grants in nine months. To get all that money at one time was incredible. We came out of nowhere.”

In the years since, the program has continued to excel, earning another model system designation and \$1.8 million in funding in 2003. “People don’t realize how difficult it is to get these grants,” Dr. Sherer said. “It has been a pretty amazing track record.”

Methodist Rehab researchers also have been fortunate to receive private funding, including a recent \$457,866 donation from the Wilson Research Foundation and a \$218,000 gift from the Craig H. Neilsen Foundation and Ameristar Casino Vicksburg.

“These grants are significant because they give us the financial support to quickly translate emerging discoveries into clinical practice,” said Dr. Stokic, administrative director of research at Methodist Rehab. “A central mission of the CNNR is to provide objective evidence about what works whether we’re evaluating promising new therapies or challenging traditional practices.”

Researchers say the key now is to sustain the program’s momentum by putting administrative structures in place to guide its evolution. “We recently formed a research council to give us a more

coordinated and organized approach,” said Dr. Sherer, who serves as chairman of the council. “This is just a step to take us to the next level.”

Dr. Sherer said another ambition of the council is to award special designations to researchers based on their accomplishments and contributions. “We wanted to give researchers recognition and have a formal acknowledgement of their roles,” he said. The designations will include senior scientist, scientist, investigator and research staff.

The program currently employs 10 full- or part-time researchers with doctoral degrees, including Dr. Art Leis, senior scientist, who arrived in 2000 and was instrumental in much of the center’s groundbreaking research on the West Nile virus. Methodist Rehab also recently added Dr. Samuel Grissom to its staff as medical director of the Spinal Cord Injury Program. Dr. Grissom has previously done research on the treatment of spasticity and its complications, an area he will continue to pursue.

The researchers say they have no problem devising ideas for new studies because much of their current research “has legs.”

“One of the big things we are working on now is confusion research,” Dr. Sherer said. “We think that has a big impact on care because confused patients have a bigger risk of injuring themselves or staff and they typically have longer hospital stays. They also have poorer outcomes in the post-acute period, and people with more severe confusion are less likely to be employed.”

Other areas of interest include studies on impaired self-awareness, the post-discharge educational needs of spinal cord injury patients, motor dysfunction after brain and spinal cord injury, and deep vein thrombosis in the rehabilitation population.

Dr. Sherer said the studies being conducted at Methodist reflect the true concerns of people with TBI because they’re inspired by the actual experiences of patients and their families. “At some sites, they have mainly researchers. We are one of the sites where the researchers also treat patients, which we think is an advantage. We study what patients and families tell us they are concerned about. We’re doing the study on acute confusion because at present there is no standard way of treating patients with confusion. What we learn will contribute to a better understanding of how to treat these patients and will benefit our patients and patients all over the country and the world.”

Having clinicians as researchers also means knowledge gained in the lab can immediately be applied to patient care. And that gives Mississippians access to therapies that are on the cutting edge, Dr. Sherer said.

“If our research tells us that a certain medication helps people get better faster, we will be prescribing that medicine,” Dr. Sherer said. “We don’t have to wait on other people to develop solutions. We are going to develop them right here in Mississippi.”



STUDY:

Brain scans prove poor predictors
of cognitive outcome



TU docs make it look so easy.

THEY SLAP UP A CT SCAN OF A PATIENT'S BRAIN AND IMMEDIATELY DELIVER A PROGNOSIS.

BUT COMPUTED TOMOGRAPHY ISN'T AS PREDICTIVE IN THE REAL WORLD – PARTICULARLY WHEN IT COMES TO FORECASTING COGNITIVE IMPAIRMENTS.

Researchers at Methodist Rehabilitation Center in Jackson recently found few links between early CT scan results and a patient's performance on neuropsychological tests.

"Our study revealed little correlation between the size, number and location of brain lesions and a patient's scores on tests that measure verbal memory, cognitive processing speed, verbal working memory and generative language performance," said Dr. Mark Sherer, director of neuropsychology at Methodist Rehab and project director for the Traumatic Brain Injury Model System of Mississippi.

As one of only 16 model system sites in the nation, Methodist Rehab participates in national research designed to improve outcomes for traumatic brain injury survivors. The CT scan study included 89 traumatic brain injury patients hospitalized at Methodist Rehab. The participants had an average age of 34

years and 72 percent were male. The majority (76 percent) sustained moderate or severe TBI.

Dr. Sherer said results of the study reinforced earlier research that found an association between cognitive performance and factors such as age and education level. "Greater age is associated with poorer cognitive speed, working memory and generative language abilities," he said. "And a higher level of education is associated with better verbal memory and faster cognitive speed."

The study also underscored the relevance of a patient's Time to Follow Commands score. "We found that the time interval from injury to the return of ability to follow commands was a significant predictor of cognitive outcome," Dr. Sherer said.

After adjusting study data to acknowledge these predictors, Methodist

Rehab researchers had hoped to gain a better understanding of how the location of brain injuries affects specific cognitive functions. But study results indicated that the number of injuries, rather than the location, has the strongest relation to outcome.

"When a person has a lot of small contusions, that probably means there has been considerable damage to the white matter of the brain," Dr. Sherer said. "This is the part that enables regions of the brain to communicate, and disruption of this communication can greatly affect a person's cognitive abilities."

To better understand injuries to this area, researchers may have to turn to newer methods of detecting the integrity of white matter, such as diffusion tensor imaging, to predict cognitive outcome after TBI, Dr. Sherer said.

SILENT RISK REVEALED



SCREENING PATIENTS FOR BLOOD CLOTS
BEST DONE BEFORE REFERRAL TO REHAB

It's a frustratingly familiar scenario.

A brain injury survivor finally gets started on rehab, only to be bounced back to acute care because of blood clots in the deep veins of his legs.

This setback is so common that rehabilitation physician Dr. Stuart Yablon was driven to learn more about the factors that influence venous thromboembolic disease in people with acquired brain injuries.

His latest findings suggest that hospitals would be wise to screen acquired brain injury patients for blood clots before they are discharged to a rehab setting.

"Our research indicates that a number of patients were leaving acute care with undiagnosed blood clots," said Dr. Yablon, director of the Brain Injury Program at Methodist Rehabilitation Center. "Not only does this put the patient at risk for possibly deadly pulmonary embolism, but it also delays treatment and can lead to increased rehabilitation costs."

The study analyzed the experiences of 180 acquired brain injury patients with deep vein thrombosis admitted to Methodist Rehab over a nine-year

period. In the first three years, patients left the acute care setting without routinely being screened for blood clots, and 55 percent of patients with blood clots were not known to have this problem before admission to Methodist. Over the next six years, patients were screened for blood clots by the acute care hospitals, particularly at the University of Mississippi Medical Center—a practice that prompted a precipitous drop in the number of newly diagnosed deep vein thrombosis cases at Methodist Rehab.

"They dropped from 66 percent in the first year of the study, all the way to zero percent last year," Dr. Yablon said. "The trend was highly significant. This highlights the importance of screening patients in the acute care setting because it significantly reduces the number of people who have blood clots we don't know about."

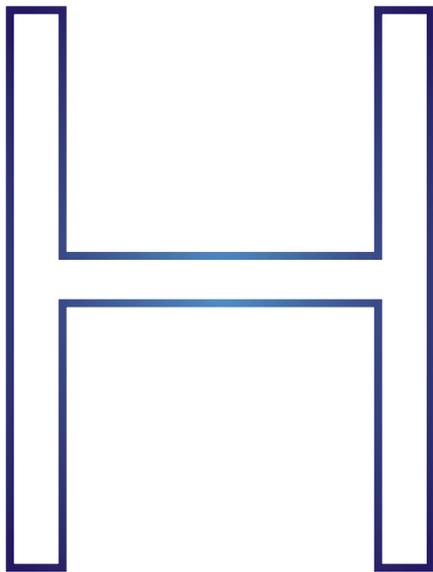
"When the problem is identified earlier, onset of treatment is hastened, presumably reducing patient morbidity, therapy interruptions and rehab costs."

Dr. Yablon said the study also found that the risk of venous thromboembolic disease is greatest early after acquired brain injuries. "The period of increased risk declines as recovery proceeds and is consistent with a transient 'hypercoagulable state' after acquired brain injuries," he said.

The screening study was presented at this year's American Congress of Rehabilitation Medicine in conjunction with collaborators from the University of Mississippi Medical Center, and is the latest in a series of investigations that Dr. Yablon has conducted concerning venous thromboembolic disease.

His earlier research contradicted the popular belief that prolonged bed rest is the most important factor contributing to venous thromboembolic disease for brain injury patients. He also found that the prevalence of venous thromboembolic disease is higher among patients with brain tumors and intracranial hemorrhage than those with traumatic brain injury.





REFLEX RESEARCH

Researchers explore use of H-reflex testing to monitor effects of intrathecal baclofen therapy

While intrathecal baclofen therapy (ITB) has given many patients relief from spasticity, the process of finding the right ITB prescription has been fraught with frustrations.

If the dose is too high, serious side effects can occur. If it's too low, the patient may receive little relief from painful spasms and abnormal postures.

Adding to the challenge is the fact that ITB is dispensed via a surgically implanted pump, making dosage adjustments considerably more complicated than a trip to the corner drug store.

Still, there's reason for optimism among ITB users. Methodist Rehabilitation Center researchers are exploring a promising new approach for evaluating the effectiveness of ITB at varying levels.

In earlier studies, scientists at Methodist Rehab discovered that a neurophysiological technique known as H-reflex could be used to monitor the spinal cord's responsiveness to the drug. Their latest research further examines the impact of different doses of continual ITB on H-reflex results.

"We hope to give physicians an understanding of how to use laboratory measures of spasticity to determine continual ITB dosages," said Dr. Dobrivoje Stokic, a senior scientist at the Center for

Neuroscience and Neurological Recovery and administrative director of research at Methodist Rehab.

Described as the electrical equivalent of the tendon tap, H-reflex is commonly evoked by stimulating the tibial nerve behind the knee and recording electrical signals from calf muscles. "The amplitude ratio between maximum H-reflex and maximum M-wave (H/M ratio) has been considered an index of spasticity because, in the majority of patients with spasticity, the H/M ratio is increased above normative limits," Dr. Stokic said.

"We use the H/M ratio as an early marker of response that hastens reaching a continual ITB dose range where hypertonia relief can proceed in earnest towards achievement of targeted functional goals. Conversely, a lack of change in the H/M ratio despite serial continual ITB dose increases should raise suspicion of a possible early system malfunction."

Monitoring the H/M ratio can also indicate late system malfunction. This is usually the case when there's a progressive or substantial increase in the H/M ratio, coupled with loss of previously achieved clinical response despite aggressive continual ITB dose increases.

"We feel that H-reflex has proved clinically useful in a variety of ways," said

Dr. Stuart Yablon, medical director of Methodist Rehab's brain injury program. "We can use it to objectively confirm ITB bolus trial responses, to help adjust ITB during the early post-implant phase, to evaluate suspected system malfunctions, such as catheter problems and 'low reservoir syndrome,' and to confirm favorable response to a change in mode of ITB administration."

Dr. Yablon said H-reflex sensitivity is particularly useful during the early titration phase since changes in H-reflex often herald a dose when clinical response is about to be observed.

Dr. Stokic said the H-reflex technique has an advantage over clinical assessment in terms of control of stimulation parameters and objective evaluation of responses. "The H-reflex recording is simple and easily performed, requiring minimal patient participation and causing almost no discomfort. In addition, the measurements are stable and reproducible under controlled conditions, which facilitates objective quantification and comparison. In our opinion, neurophysiological evaluation is useful for assessing spinal cord responsiveness, and if available, this information should be considered when judging the overall clinical effectiveness of ITB administration."



When it comes to recovering at home after a traumatic brain injury, do city dwellers have a distinct advantage?

It would seem so, since they have better access to medical care and rehabilitation therapies. But a recent study at Methodist Rehabilitation Center found no link between rural residency and higher rates of medical complications among TBI survivors.

The study looked at how 111 TBI survivors were faring one year post-injury using a measure called the disability rating scale.

"The scale rates eight areas of functioning," explained neuropsychologist Dr. Sam Gontkovsky, a scientist at Methodist Rehab's Center for Neuroscience and Neurological Recovery. "We looked at their verbalization, motor response, eye opening, their level of cognitive ability for activities such as feeding, toileting and grooming, and their overall level of dependence and employability."

Study participants underwent the screening soon after admission to

Methodist Rehab and at their one-year, post-injury evaluation. Researchers also interviewed the participants and their families to determine if they had experienced any medical complications after TBI, such as headaches, falls, seizures or re-hospitalizations. They also were asked whether they had been prescribed TBI-related medications or had used any alcohol post-injury.

Researchers also determined the "degree of urbanicity" for study participants' residences using a scoring system that is based on the populations of the three largest cities in their counties.

"We used this index because it is superior to methods that determine urbanicity based on total population or percentage of urban population," Dr. Gontkovsky said.

While researchers had expected to find that participants living in more rural areas would be at greater risk for medical

complications, the data didn't support the association.

Dr. Gontkovsky said one reason may be the exceptional care each patient in the study received early on.

"They all received initial care in a Level One trauma center with subsequent inpatient rehabilitation in a specialized brain injury rehabilitation program. Perhaps this high standard of initial care diminished the impact of poorer access to care for more rural residents during the post-acute period of recovery."

Dr. Gontkovsky added that there might also be some factors specific to rural states such as Mississippi that served to artificially skew the study's findings. "Additional research will be necessary to determine the effect of geographic location of residence on patient outcome post-TBI across various indicators of outcome and in more populous states," he said.



Desire For Information Common for Spinal Cord Injury Patients

Call it a common conundrum of the rehab setting.

When spinal cord injury (SCI) patients have the greatest access to health care information, they're often too shell-shocked to take it all in.

"I was hearing it, but I wasn't hearing it," said Adrian Benson of Canton, who came to Methodist Rehabilitation Center after a car wreck left him a paraplegic. "I was just ready to get out of the hospital. Being paralyzed ... it took some time for that to sink in."

Only later did Benson begin craving more knowledge about his condition, an experience that is hardly unique.

In a recent Methodist Rehab study, a majority of participants reported a need for information even years after discharge from an acute care setting.

"The respondents were most concerned about issues related to aging, research, financial aid and education," said neuropsychologist Dr. Sam Gontkovsky, a scientist at Methodist Rehab's Center for Neuroscience and Neurological Recovery. "Non-white participants in particular reported a significantly higher need for information in a variety of categories."

Dr. Gontkovsky said it's not surprising that aging would top the list of subjects that most interested SCI patients.

"People with SCI are generally living longer due to improvements in care over the past two decades," he said. "It's natural that this population would want to seek out information that could help them avoid some of the common medical complications associated with aging."

A desire for research data also is understandable, given that medical advances often herald therapies that improve functional limitations. "We also

know from past studies that many people with SCI are keenly interested in research that might provide a 'cure' for paralysis," Dr. Gontkovsky said.

Dr. Gontkovsky said the reported need for financial aid info is probably indicative of the high rates of unemployment among individuals following SCI and a lack of awareness about assistance from existing benefit programs.

Study participants also expressed a need for more general education, and Dr. Gontkovsky said future research should focus on breaking this broad category into specific aspects of education.

"I think what this study shows us is that we need to learn more about why the lifelong information needs of SCI patients aren't being met and how that disparity influences outcome. In light of decreasing lengths of inpatient stays, developing strategies to meet the perceived information needs of people with SCI may be especially critical."



STUDY:

**LOW SELF-ESTEEM PUTS
STROKE RECOVERY AT RISK**



“MY RESEARCH SUGGESTS THAT SELF-ESTEEM IS MORE PREDICTIVE OF FUNCTIONAL OUTCOME IN THE ACUTE CARE SETTING THAN IS DEPRESSION.”

— Dr. Chad Vickery

The best therapeutic aid for a stroke survivor may be a healthy self-image.

That’s the upshot of a Methodist Rehabilitation Center study that links low self-esteem to fewer gains in therapy and poorer functional outcome.

“My research suggests that self-esteem is more predictive of functional outcome in the acute care setting than is depression,” said neuropsychologist Dr. Chad Vickery, an investigator at Methodist Rehab’s Center for Neuroscience and Neurological Recovery.

Dr. Vickery said the finding is significant because past studies have only considered the effect of depression on functional outcome following stroke. “This indicates that we may have been looking at the wrong thing – maybe we should be considering the self-esteem of survivors, in addition to asking if they are depressed,” he said.

Depression is common among stroke patients. Dr. Vickery said some estimates say it affects as many as 79 percent of stroke survivors during the first couple of years of recovery.

Although low self-esteem has been related to poor emotional function and is a recognized risk factor for depression, less is known about its impact on functional outcome. So Dr. Vickery decided to contrast the progress of patients in Methodist Rehab’s acute care stroke program with measures of their self-esteem.

Dr. Vickery said measurement of self-esteem involves asking people to rate how they see themselves along a number of descriptors; for example, asking people if they see themselves as optimistic or not optimistic, intelligent or not intelligent, confident or not confident, etc. The less people see themselves in more positive terms, the more at risk they are for depression and poorer functional outcome.

A stroke can be especially destructive to a person’s self-regard because it often affects areas that define a person’s self-image. For example, someone who prides himself on his sports abilities might be hard hit by paralysis, while someone who is outgoing and social would be devastated by a loss of communication skills.

“I suspect that those people whose particular sources of self-esteem are affected by the stroke will be the people most at risk for lowered self-esteem, and thus more at risk for depression,” he said.

Dr. Vickery plans further studies to explore that hypothesis, as well as research to determine the relationship between self-esteem and functional outcome for stroke survivors.

He said his preliminary research suggests that people with poor self-esteem may fare worse in therapy because they avoid challenges that might further reduce their self-esteem.

“They figure if they don’t try, they won’t fail. However, this keeps them from experiencing the many successes in therapy that can rebuild self-esteem.

“In the long run, I will be looking at ways to improve survivors’ sense of self-worth. This may help improve their participation in the therapy process, which in turn may lead to better functional outcomes and decrease their risk of the developing depression.”

Research gauges • impact of
Impaired
Self-Awareness
on depression



“PEOPLE WHO HAVE IMPAIRED SELF-AWARENESS OFTEN ARE LESS MOTIVATED TO PARTICIPATE IN THERAPY, EXPERIENCE LONGER STAYS IN POST-ACUTE REHABILITATION AND HAVE TROUBLE RETURNING TO WORK.” — Dr. Mark Sherer

Ignorance is bliss, goes the old saying.

And it's a philosophy that rings true for some survivors of traumatic brain injury (TBI). Those who are least aware of their deficits report higher levels of life satisfaction than their more cognizant counterparts.

That's one of the main findings of a study by Methodist Rehabilitation Center researchers Dr. Mark Sherer and Dr. Clea Evans that looked at the impact of impaired self-awareness on a patient's recovery.

Impaired self-awareness is characterized by a lack of appreciation for the severity of your deficits and how they affect your ability to work or live independently, explained Dr. Mark Sherer, director of neuropsychology at Methodist Rehab and project director of the TBI Model System of Mississippi.

“It's an important area to study because impaired self-awareness is a factor in determining long-term functional recovery after TBI,” he said. “People who have impaired self-awareness often are less motivated to participate in therapy, experience longer stays in post-acute rehabilitation and have trouble returning to work.”

The study included 96 TBI patients who underwent a battery of tests including:

- The Disability Rating Scale that assesses eight areas of function.
- The Awareness Questionnaire that determines the degree to which a patient has overestimated his or her functional status.
- The Center for Epidemiologic Studies-Depression scale that measures the frequency of depression symptoms.
- The Satisfaction with Life Scale that measures quality of life.

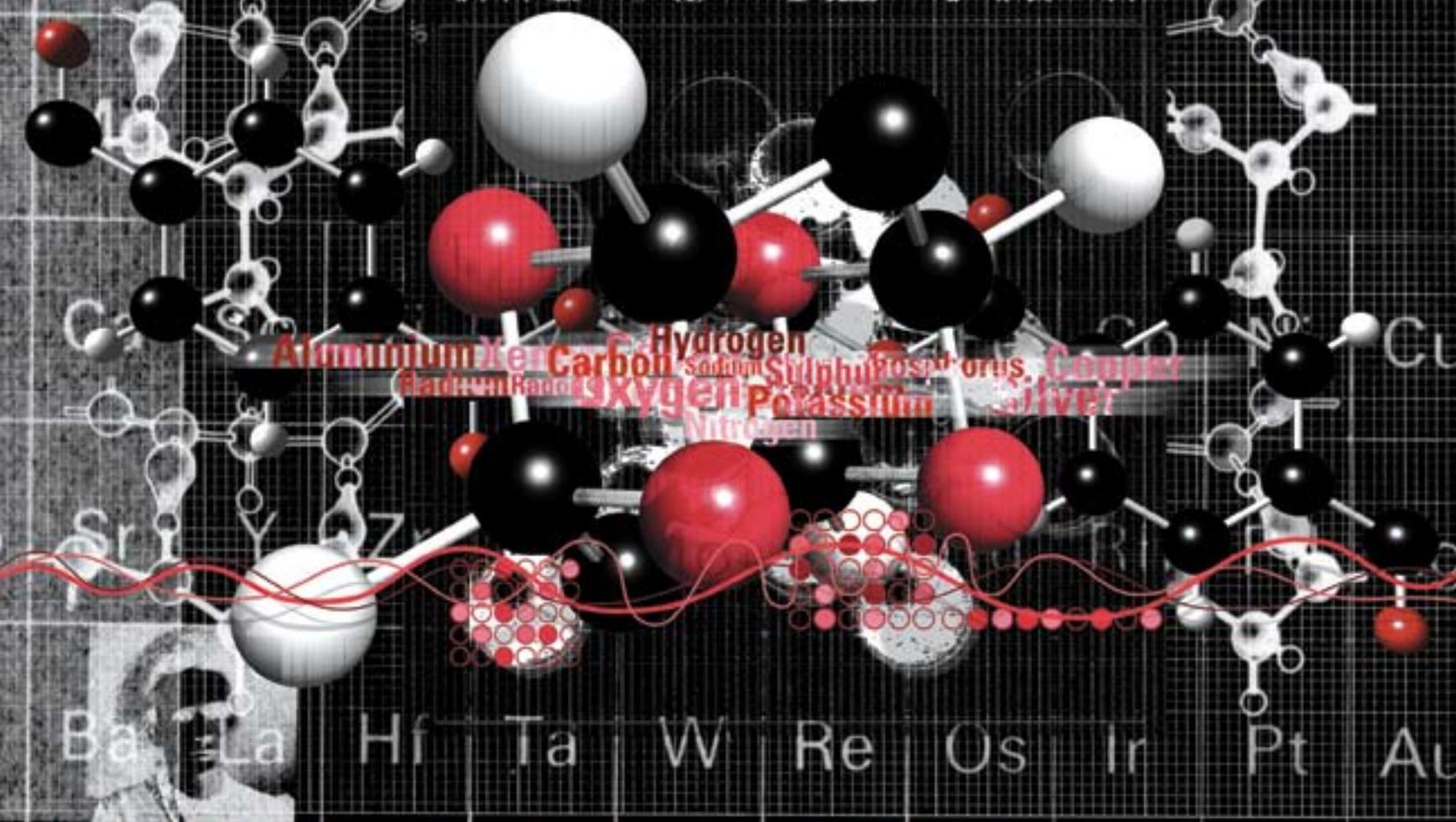
As expected, individuals with impaired self-awareness whose scores reflected poor self-awareness scored highest on the satisfaction with life scale. And more intact functioning at admission to a rehab center was associated with greater life satisfaction at discharge.

But contrary to researchers' predictions and previous findings in post-acute samples, the degree of impairment associated with impaired self-awareness was not inversely related to reports of depressive symptoms in the in-patient population.

“We thought that as time went by and people become more aware of their deficits that they would become more depressed,” Dr. Sherer said. “But that's not what we found. Surprisingly, half of our participants rated themselves as being somewhat satisfied with life post-injury, further highlighting the reason for wanting to study impaired self-awareness and depressive symptoms at early points in recovery.”

Dr. Evans, a neuropsychologist at Methodist Rehab, said one reason why TBI patients in acute rehab settings may appear fairly satisfied with life is that many are rating their overall satisfaction as it was before their accident. “They may view their hospitalization as a temporary setback,” she said.

Dr. Sherer said once the full implications of the long-term effects of a TBI are faced, depressive symptoms may increase. “That's why future investigations should continue to focus on impaired self-awareness and depression and examine the relationship between the conditions over time.”



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PROJECT INVESTIGATORS



Clea Cornett Evans, PhD

Dr. Evans is a staff neuropsychologist who works on the inpatient brain injury, stroke, and spinal cord injury units at Methodist Rehabilitation Center. She received a Ph.D. in Clinical Psychology from the University of Georgia in 1999 and completed a two-year post-doctoral fellowship in Neuropsychology at Baylor College of Medicine/TIRR in 2001. She collaborates on research that is grant-funded by the National Institute on Disability and Rehabilitation Research's Traumatic Brain Injury Model System of Mississippi, and is also involved in stroke research. She is on the faculty of the MRC/University of Mississippi Medical Center Postdoctoral Neuropsychology

Fellowship Consortium. Her research interests include rehabilitation interventions and outcomes following TBI and stroke. Dr. Evans has published 31 articles and abstracts and has given numerous professional presentations at state, national and international conferences.



Samuel T. Gontkovsky, PsyD

Dr. Gontkovsky is a scientist at the Center for Neuroscience and Neurological Recovery and holds academic appointments in the Department of Neurology at the University of Mississippi Medical

Center and in the Department of Psychology at Jackson State University. He is a Diplomate of the National Board of Cognitive Behavioral Therapists and Associate Fellow of the Biofeedback Certification Institute of America. Dr. Gontkovsky is active in several state and national professional guild organizations, including serving as the president of the Mississippi Psychological Association in 2006. Dr. Gontkovsky has authored or co-authored more than 50 peer-reviewed articles, book chapters, and book reviews and over 50 abstracts. He has given numerous presentations at state, national, and international meetings. He serves on the editorial board of SCI Psychosocial Process and as an ad hoc reviewer for multiple professional journals, including Rehabilitation Psychology, Visual Cognition, and Clinical Interventions in Aging.



Samuel P. Grissom, MD

Dr. Grissom is medical director of the Spinal Cord Injury Program at Methodist Rehab. Dr. Grissom has done research on the treatment of spasticity and its complications. He has also authored and co-authored several articles and abstracts published in the Archives of Physical Medicine and Rehabilitation and the American Journal of Physical Medicine and Rehabilitation. He is an active member of the American Board of Physical Medicine and Rehabilitation; American Medical Association; American Spinal

Injury Association; and Association of Academic Physiatrists. A graduate of Tulane University in New Orleans, Dr. Grissom received his medical degree from the University of Florida College of Medicine in Gainesville, Fla. and completed a residency in physical medicine and rehabilitation at the University of Texas Southwestern Medical Center in Dallas. He became board certified in physical medicine and rehabilitation in 1995 and in spinal cord injury medicine in 1999. Dr. Grissom has served as associate medical director at Kessler Institute for Rehabilitation in Chester, N.J., and medical director of inpatient rehabilitation at Virginia Mason Medical Center in Seattle, Wash.





A. Arturo Leis, MD

Dr. Leis is a senior scientist at the Center for Neuroscience and Neurological Recovery and clinical professor of neurology at the University of Mississippi Medical Center. He is certified by the American Board of Psychiatry and Neurology, with added qualification in clinical neurophysiology, and by the American Board of Electrodiagnostic Medicine. Prior to current

appointments, Dr. Leis was director of clinical neurophysiology at the Division of Restorative Neurology and Human Neurobiology at Baylor College of Medicine in Houston, Texas, and chief of electromyography at the Department of Neurology at the University of Mississippi Medical Center. Dr. Leis has received numerous honors and awards for his clinical and academic accomplishments. He has authored more than 80 peer-reviewed articles and book chapters and over 100 abstracts. He recently published two books on electromyography. He has served as an invited examiner for the American Board of Electrodiagnostic Medicine and has made numerous presentations at national and international meetings, courses and workshops. Dr. Leis regularly serves as an ad-hoc reviewer for Neurology, Archives of Neurology, Muscle & Nerve and Clinical Neurophysiology.

Jae E. Lee, Dr. PH

Dr. Lee is a scientist at the Center for Neuroscience and Neurological Recovery. He earned his doctoral degree in quantitative research methods from Tulane University in 1999. Prior to joining MRC in 2005, he was an office director of decision science in the Mississippi State Department of Health, an assistant professor of professional study in the Dental School of the University of Nevada at Las Vegas, and a social epidemiologist in the Harvard School of Public Health. Dr. Lee authored or co-authored 17 peer-reviewed articles and made several presentations at the national meetings. He has served as an editorial consultant for several public health peer-review journals. He participated in seven NIH funded studies and served as a co-investigator on three. His current research interest is in quality of life after neurological injury, health outcome measurements, and evaluation of health services.



Risa Nakase-Richardson, PhD

Dr. Nakase-Richardson is a staff neuropsychologist at Methodist Rehabilitation Center. She earned her Ph.D. in clinical psychology from West Virginia University. She has been involved at various stages of five National Institute on Disability and Rehabilitation Research (NIDRR) grants since joining MRC in 1998. She currently serves as a research coordinator and co-investigator for therapeutic alliance and confusion treatment trials which are part of the NIDRR TBI Model System of Mississippi grant. She is also an assistant director of clinical training for the MRC/University of Mississippi Medical Center Postdoctoral Neuropsychology Fellowship Consortium. Her research interests include assessment and treatment of neurobehavioral functioning after acquired brain injury and rehabilitation of aphasia. Dr. Nakase-Richardson has published 57 articles and abstracts and has given more than 65 professional presentations at state and national

conferences. She has served as an ad-hoc reviewer for Clinical Psychology and Psychotherapy, Journal of Cognitive Psychotherapy, Psychology and Addictive Behaviors, and International Journal of Therapy and Rehabilitation.



Mark Sherer, PhD

Dr. Sherer is director of neuropsychology and clinical director of the Quest program at Methodist Rehabilitation Center and project director for the Traumatic Brain Injury Model System of Mississippi. He is chairperson for the Methodist Rehabilitation Center Research Council. He is also a clinical professor of neurology and psychiatry at the University of Mississippi Medical Center. Dr. Sherer is a board certified neuropsychologist with over 20 years experience as a clinician, administrator and educator in brain injury rehabilitation. He is a fellow of the American Psychological Association, the National Academy of Neuropsychology, and the American Congress of Rehabilitation Medicine. Prior to joining MRC, Dr. Sherer was director of neuropsychology at The Institute for Rehabilitation and Research (TIIR) and clinical associate professor of physical medicine and rehabilitation at Baylor College of Medicine in Houston, Texas. Dr. Sherer has served

as principal investigator for grants on TBI recovery, impaired self-awareness, telephone counseling for persons with TBI, TBI/SCI community integration, and rehabilitation of brain tumor patients. He has published more than 175 articles, chapters and abstracts, including 70 peer-reviewed articles and has given numerous presentations to state, national and international conferences. Dr. Sherer serves on editorial boards for Applied Neuropsychology, Journal of Head Trauma Rehabilitation, The Clinical Neuropsychologist, and Rehabilitation Psychology.



Dobrivoje S. Stokic, MD

Dr. Stokic is a senior scientist at the Center for Neuroscience and Neurological Recovery and administrative director for research at Methodist Rehabilitation Center. He completed his residency in physical medicine and rehabilitation and doctoral degree at the University of Belgrade, Serbia. Before joining MRC in 1997, he was a postdoctoral fellow

and research associate at the Division of Restorative Neurology and Human Neurobiology at Baylor College of Medicine in Houston, Texas. His research interest is neurophysiological assessment of motor functions after stroke, spinal cord injury and brain injury as it pertains to diagnosis and evaluation of rehabilitation outcomes and interventions. He serves as principal investigator or co-investigator on several projects funded by pharmaceutical industry, various foundations and local agencies. Dr Stokic has published over 40 peer-reviewed articles and more than 60 abstracts presented at national and international meetings. He has served as an ad-hoc reviewer for numerous national and international journals and federal funding agencies.



Chad D. Vickery, Ph.D.

Dr. Vickery is a staff neuropsychologist at Methodist Rehabilitation Center. He received a Ph.D. in clinical psychology from the University of Kentucky in Lexington in 2001. He completed a two-year postdoctoral position at Methodist Rehabilitation Center in 2003. His

research interests include emotional functioning and self-esteem following stroke and the impact of these variables on functional outcome in the inpatient rehabilitation setting, and is currently writing federal grants to pursue this research.

Stuart A. Yablon, MD

Dr. Yablon is director of the Brain Injury Program at Methodist Rehabilitation Center, project medical director for the Traumatic Brain Injury Model System of Mississippi and clinical assistant professor of neurology at the University of Mississippi Medical Center. He is board certified in physical medicine and rehabilitation. Dr. Yablon was previously co-director of the Brain Injury Program at The Institute for Rehabilitation and Research (TIIR) and assistant professor of physical medicine and rehabilitation at Baylor College of Medicine and the University of Texas Medical School. He also has been principal investigator or co-investigator on several funded projects related to pharmacologic therapies for TBI rehabilitation and management of spasticity. He has received numerous awards. Dr. Yablon has published over 140 articles, chapters, monographs, and abstracts and has given numerous invited presentations all over the world. He has served as an ad-hoc reviewer for American Journal of Physical Medicine and Rehabilitation, Brain Injury, and the Journal of Head Trauma Rehabilitation.



RESEARCH STAFF:

Antonio Hayes, R.EDT./EP.
Neurophysiology Technologist

Barbara Farley
Research Assistant

Yolanda Pannel
Administrative Research Coordinator

ADDITIONAL SUPPORT

Putting your dollars to work...

People wishing to donate to Methodist Rehabilitation Center may choose where their money will go and how it will be used.

An envelope is included in this magazine should you wish to donate.

Housing Opportunities

Methodist Rehabilitation Center is committed to providing low-cost, accessible housing opportunities for people with disabilities. In 2001, we worked with the U.S. Department of Housing and Urban Development to open Webb Park in Jackson—a first-of-its-kind, 19-unit, custom designed apartment complex for the physically disabled. The building features lowered light switches, raised electrical outlets and fully accessible kitchens and bathrooms. Recently, Wofford Park—a 15-unit complex in Hattiesburg—opened its doors, offering the same amenities as Webb Park. Donations earmarked for housing will be used to help fund similar complexes in other areas of the state.

Patient Care Fund

The patient care fund at Methodist Rehabilitation Center serves as a resource for patients who cannot afford essential equipment such as wheelchairs or ramps. It also provides reduced rate hotel rooms and other services for the families of some patients receiving treatment at the hospital.

Therapeutic Recreation Programs

Methodist Rehabilitation Center's therapeutic recreation program offers people with disabilities an opportunity to get back in the game by participating in organized sports programs, such as quad rugby, sled hockey, hand cycling, wheelchair racing, fencing, golf, scuba diving, power soccer, fishing, tennis, ballet and water and snow skiing.

Wilson Research Foundation

The Wilson Research Foundation, a 501(3)© nonprofit organization, was established to improve the lives of the physically disabled by funding rehabilitation research at Methodist Rehabilitation Center. Established in 1989 with a generous gift from the H.F. McCarty Jr. Family Foundation, the Wilson Research Foundation honors the late Earl R. Wilson, and his wife Martha Lyles Wilson's service to physically disabled Mississippians. Earl Wilson was the founding chairman of Methodist Rehabilitation Center. The purpose of the current research campaign is to raise \$5 million to expand the scope and intensity of spinal cord injury, brain injury and stroke research at Methodist Rehabilitation Center.





Earl R. Wilson, Founding Chairman

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