Neurological Stress Reduction Therapy
A Breakthrough Treatment for Allergy Sufferers

At Last a True Alternative
Advanced Therapy for Migraine Pain

Dynamic Duo for Stroke Sufferers
New Development in Stroke Treatment

Videonystagmography
New Hope to Combat Risk of Falling

The Year’s Best New Health Tools

INTERVIEW:
William R. Marshall, M.D.
Orthopaedic Associates
Almost a decade has passed since The National Center for Health Statistics conducted a study that made Americans aware of the serious dangers that face people of all ages, especially those over 60 who are at risk of falling. In addition to being the number one cause of injury for anyone over the age of 18, it is the leading cause of emergency hospital visits for those over 25 (including broken hips among the elderly, whose bones weaken with age), and, of greatest concern, a contributing cause of death within one year for one out of three such patients.

With the subject of healthcare in the forefront of today’s news headlines, both politically and economically, this is an appropriate time to present the progress that has been made in the evaluation and treatment of an issue that affects millions of Americans, but most people do not recognize this as being a serious problem until it is too late. The following profile of a noted physician discusses this critical issue, and describes a state-of-the-art technique that health professionals now have available to help their patients avoid the dangers of this common risk shared by so many.

Profile: William R. Marshall, M.D.

The fact that William R. Marshall, MD is today recognized as an outstanding and widely respected provider of orthopaedic medicine would come as no surprise to anyone who had followed his life story. His list of achievements and honors from his earliest days forward, too numerous to list here, are evidenced by these few examples:

Dr. Marshall was born in South Mississippi, the oldest of five boys. He was elected to Gulfport High School Hall of Fame; President sophomore and senior classes; varsity letterman in four sports; Bachelor of Science degree cum laude from the University of Southern Mississippi where he served as President of the Honorary Mathematics Society, Chief Justice of Student Government Court; and was selected to Omicron Delta Kappa National Honorary Leadership Society the highest honor accorded male students at USM. While studying at the University of Mississippi School of Medicine, he was elected to the Honor Council and Sophomore Class President, received the Health Profession Scholarship Career Award and participated in a work study research program under Dr. Arthur C. Guyton, world authority on medical physiology. He was elected to AOA National Honor Medical Society and received his Doctor of Medicine degree with honors in 1974.

Following his internship in the Department of Medicine at the University Of North Carolina Memorial Hospital, Dr. Marshall completed his orthopedic surgical residency training at the University of Tennessee’s world renowned Campbell Clinic in Memphis. He is certified by the American Board of Orthopedic Surgeons, a member of the American Academy of Orthopaedic Surgeons, Florida Orthopaedic Society, Southern Medical Association, Arthroscopy Association of North America and other professional organizations. He is a founding partner and former medical director of surgery centers in Fort Walton Beach and Destin where he performs a wide range of minimally invasive outpatient surgical procedures.

Dr. Marshall is the senior partner at Orthopaedic Associates, an 8-member specialty surgical and medical practice serving the neuromuscular, bone and joint needs of Northwest Florida for over 35 years with offices in Fort Walton Beach, Destin, and Niceville. Some services provided include evaluation for arthritis, deformity, joint replacement, osteoporosis, arthroscopy, spine, neurological disorders, sports and work related injuries using current treatment and rehabilitation concepts for best outcome.

Office locations are well equipped to serve patients’ needs including digital radiography, open MRI, ultrasound, bone density scan, electronic medical records and neurological testing as well as a fully-equipped physical therapy department.

Most recently, Dr. Marshall introduced the Balance+Plus equipment as a new benefit for patients. As he explains, “With the aging of the American population and government mandates, it has become important to change our emphasis as health providers from treatment to prevention and patient advocacy. When we see the terrible consequences of falls; how the pain from a broken hip or arm can make a person dependent on others and impact quality of life, it becomes a critical factor to be able to diagnose every patient’s risk of balance deficiency. It is far better to prevent the injury than to try to treat the tragic result afterward.”

More than two-thirds of Dr. Marshall’s patients are age 50 and older, but he also treats teenage patients including athletes at all levels of competition. He was formerly a member of the Sports Medicine Committee for the U.S. Olympic Swimming Team. Dr. Marshall has served as a high school team physician and health professional student...
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How serious a problem is it?

A few statistics will help explain the seriousness. For example, one out of three people 65 and older fall each year, and about 2.2 million of them need medical attention. One in ten falls causes serious injury, and 340,000 falls result in broken hips each year. Worst of all, one-third of those patients die within a year, 40 percent need a nursing home, and half who make it to rehabilitation still never walk unaided again.

I have read several reports that say that falls are a leading cause of morbidity and mortality in persons over 65 years of age.

Has that been your experience?

You would think so, but by no means is falling a problem that only affects the elderly. Most people don’t know it, but falls are the number one cause of nonfatal injuries in all age groups.

When an individual falls frequently, even if there are no serious injuries there is a heightened fear of falling, reducing physical exercise and outside activities that can lead to social isolation, dependency on family members or worse, nursing home placement.

That is surprising. Why would that be the case?

While it is true that people’s sense of balance and equilibrium generally becomes weaker as they get older, the problem can exist at any age. Until just a few years ago, healthcare professionals were not trained to check this aspect of their patients’ condition to determine whether treatment would be needed or helpful. Unfortunately, 50 percent of patients complaining of dizziness in a primary care setting are not diagnosed.

How much is this problem costing the American taxpayers?

A report from the CDC said that in 2000 the direct medical costs for fall-related injuries totaled approximately $19 billion. It then went on to say that the total cost of fall injuries among older adults is expected to hit $54.9 billion in 2020. That is a very expensive problem. This is one of the reasons why the nation must focus on health prevention and not just treatment.

Do drugs in general create problems with the elderly as it relates to falling?

Several medications designed to treat symptoms of dizziness and disequilibrium can sometimes hinder the natural vestibular compensation process and slow reaction time.

How does it work?

To simplify the explanation, it’s called a posturography test and uses Balance+Plus Fall Assessment System. This equipment tests the patient standing on a computerized digital scale that calculates the patient’s weight, body mass index and determines his or her stability score. A printed report is

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Innovative HealthCare: We are following up on a medical issue that was identified almost ten years ago to report on the progress that has been made. I am referring to the problem of “falling” and its surprisingly serious consequences.

Dr. Marshall: Yes, The problem of “falling” is seen daily in our orthopedic clinic and the Joint Commission on Accreditation of Healthcare Organizations finally identified this problem as being a critical priority back in 2005.

How serious a problem is it?

Because of Dr. Marshall’s outstanding training, achievements and concern for patient advocacy, the developers of the Balance+Plus Technology were most appreciative when he agreed to take time from his busy schedule to participate in the following interview.

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completed with each evaluation, comparing each patient to age matched peers.

If it becomes clear from the initial screen- ing posturography test that the patient has a serious risk of falling, we schedule a diagnostic test (VNG) that provides detailed information to help determine cause and anatomical location of the problem so that specific treatment can be prescribed.

**What is involved in the diagnosis?**

As with the first two procedures in the BP Program, there is no discomfort at all for the patient. Filling out a brief questionnaire and then stepping on what seems like a weight scale is clearly not uncomfortable at all. And in the third and most important step of the procedure, all the patient has to do is put on a pair of specially designed state-of-the-art goggles.

**Goggles?**

Yes. These special infrared camera goggles are electronically connected to a computer that is able to measure, by the patient’s eye and head movements, the oculomotor and vestibular systems. This video nystagmography (VNG) test reviewed by a Board Certified Neurologist helps evaluate a patient’s equilibrium, visual and balance transmissions to his or her brain, which are directly tied to the risk of falling.

By helping diagnose the cause of this risk, does that enable you to direct the patient to the proper, most effective method of treatment?

Yes, the test(s) may also facilitate early detection of other disorders such as Parkinsonism, MS, stroke, auditory and visual disease. Recently I was able to discover an undiagnosed brain tumor. Most often we diagnose benign positional vertigo that has a 90% treatment success rate.

**I imagine that your patients are grateful to you for being able to offer this new service.**

The more they realize how serious a problem falling can be, the more they appreciate our desire to help them in this important new way. This is especially true when they experience the benefits of vestibular rehabilitation.

As a matter of fact, in patients with chronic balance problems, only vestibular rehabilitation has been shown to improve balance function and performance when compared with medical therapy or general exercises. We have a neurologist on staff and utilize physical therapists who can offer balance oriented non-surgical treatment, covered by most insurance plans.

Based on the statistics at all ages, the risk of falling seems to be something that should concern everyone regardless of age.

That is true, but since the patient’s balance and equilibrium begin to worsen around age 60, it is even more important for people in that age range to make this posturography test an automatic part of any annual check-up. This is a preventative test that could save a life. Our healthcare system can save billions of dollars a year by avoiding the high costs of hospitalization, surgery and long-term care that can result from a preventable fall.

**So, all in all, it is a benefit to the patient, family and country.**

Yes. It is a benefit that we are truly proud to offer as an important service to help maintain the best quality of life for our patients.

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