WINTER / 2008 / VOLUME 1

Health in Motion

cnmri
NEUROLOGY
PHYSICAL MEDICINE
SLEEP DISORDERS

Sleep Apnea
Sleep! It's a Beautiful Thing

Stroke
Prevention & Treatment

Success! Living With MS
MULTIPLE SCLEROSIS

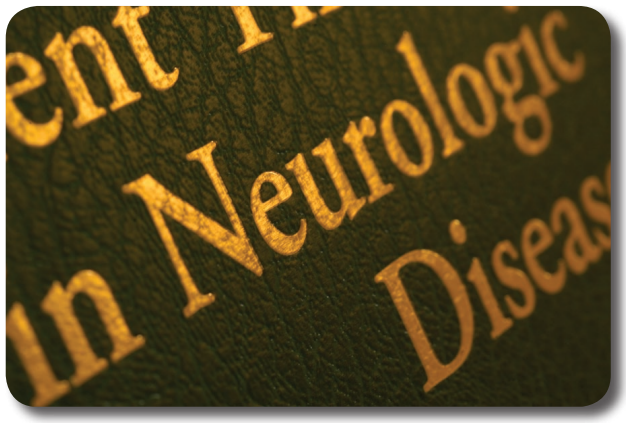
Migraines
Regaining Your Life

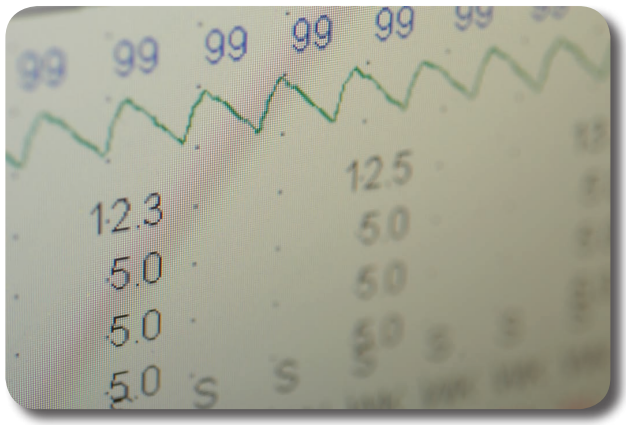
KEEP THIS!
Our First Issue

Why did your doctor

Health in Motion

On the Cover & What's Inside





send you to CNMRI?

MRI? NEUROLOGY?

Sounds serious doesn't it? It is! And you want to feel absolutely secure about your evaluation. That's why it is nice to know that the staff at CNMRI are top notch and that they have the most sophisticated state-of-the-art equipment possible.

Your doctor referred you to CNMRI because he is concerned about you. He wants you to have the best care possible and wants you to be treated with empathy by the experts in neurology, sleep medicine, rehabilitation and magnetic resonance imaging. The staff at CNMRI will make sure you are treated well. It is comforting to know that the doctors at CNMRI will share your diagnosis and treatment plan with your personal physician.

Our mission is to provide you with the best diagnostic and medical treatment possible. We know that you may be anxious about your visit. Thankfully, our staff members are experts in keeping you relaxed and happy. MRI studies make some people nervous. We go out of our way to make sure you are comfortable and offer courtesies such as informative walk-throughs to familiarize you with your procedure. During your scan, you have the option of using headphones so you can listen to music and even special glasses with mirrors that allow you to see outside the magnet, reducing possible feelings of confinement. A registered MRI technician will monitor you closely throughout your procedure. You even have the option of having a family member or friend sit with you during the study.

Having an MRI scanner that is OPEN and HIGH FIELD is one of the most exciting features of our state-of-the-art magnetic resonance imaging technology. The opening of our magnet is almost twice as large as some older magnetic resonance scanners, which greatly improves your comfort. Plus, the magnet strength is up to five times stronger. This strength greatly speeds up the time of your examination and allows us to produce much higher resolution images, which aid in the diagnosis of your condition.

We are on the cutting edge of technology with high field open MRI engineering so advanced that you never sacrifice quality for comfort. "Traditional" open MRI machines create images that may not be diagnostic and often need to be repeated on a stronger or higher field system. The better the image quality, the more accurate and dependable the doctor's diagnosis will be. In addition, our MRI scanner can perform special types of studies which greatly improve diagnostic sensitivity. You don't want to take any chances when it comes to your health. Choose CNMRI.

Robert J. Varipapa, MD

Dr. Varipapa has always been fascinated with the way things work. Growing up, his parents found him taking household appliances apart and, luckily, putting them back together. Soon, his reputation spread, with neighbors bringing mechanical and electronic devices for him to repair. In medical school, Dr. Varipapa became fascinated with the brain and its inner workings. He is known in the medical community and among staff and patients for his ability to diagnose and treat complex neurologic conditions and for his expertise in computers and electronics. A graduate of the University of Maryland School of Medicine, Dr. Varipapa completed his internship at the Union Memorial Hospital in 1982 and residency in neurology at the University of Maryland from 1983 to 1985.

CNMRI was created by Dr. Varipapa in 1985 with the mission to provide the highest quality neurologic care possible, with specialization in diagnostic and medical treatment of neurologic diseases. CNMRI introduced the first permanent magnetic resonance scanner in Southern Delaware in 1987 and in association with Bayhealth Medical Center, started the first sleep lab in Kent and Sussex counties. Providing excellent, state-of-the-art neurologic care in an empathetic environment has been the dominant principle of CNMRI, and this mission continues to be the core philosophy of the practice today.

Dr. Varipapa is board-certified in neurology and a member of the American Academy of Neurology, the American Society of Neuroimaging, the American Medical Association and the Delaware Medical Society. He lectures to physicians and patients on Alzheimer's disease, headaches and migraines, magnetic resonance imaging, and sleep disorders. He also has expertise in multiple sclerosis and disorders of the spine.

What's New?

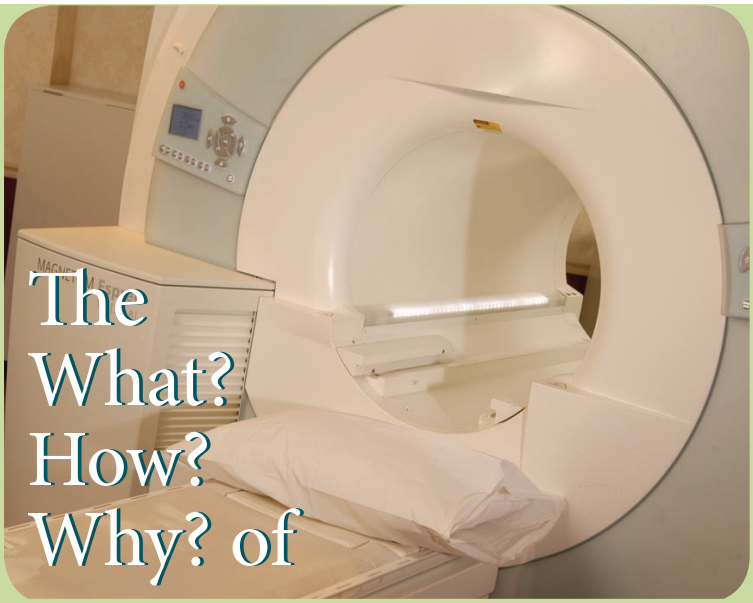
CNMRI is very happy to announce our newest OPEN HIGH FIELD MRI system – the Siemens Magnetom Espree 1.5T. This amazing system has the largest bore magnet opening available. You'll be amazed at how roomy and comfortable it is with almost 50% more space than older open MRI units. And the imaging power is phenomenal! This advanced MRI unit has five times more power than older open MRI systems. This means your scan will take only about a third to half the time to complete in comparison to older scanners. Call us for a tour. We think you'll be pleasantly surprised!

David Bluemke, MD, PhD

Clinical Director, Johns Hopkins Hospital MRI Division

Magnetic Resonance Imaging (MRI) is a complex and ever-changing field requiring extensive training and expertise. We have contracted with Johns Hopkins Hospital, Dr. David Bluemke and the MRI Division team at Johns Hopkins to bring you the ultimate in full-service MRI. The MRI Division which specializes in body imaging includes Dr. Ihab Kamel, Dr. Kataryna Macura and Dr. Vogel-Claussen, all with fellowship specialty training, along with 12 clinical fellows in the MRI division. With over 230 peer-reviewed articles published and approximately fifty lectures a year, Dr. Bluemke is a highly qualified, renowned radiologist dedicated to maintaining the high levels of service that CNMRI has come to be associated with. The off site Hopkins MRI team is available to interpret studies on a stat time line and always make themselves very accessible to our referring physicians.

Dr. Bluemke is a professor of radiology at Johns Hopkins and the clinical director of their MRI division. He received his PhD, and his MD from the University of Chicago and completed his residency in radiology and fellowship at Johns Hopkins Hospital. He continues his research in MRI and CT and is a member of RSNA, American College of Radiology, International Society for Magnetic Resonance in Medicine (ISMRM), American Roentgen Ray Society, and is a member and fellow of American Heart Association. He is also on the board of trustees of ISMRM and the editorial boards of *Radiology*, the *Journal of Magnetic Resonance Imaging* and the *Journal of Computed Axial Tomography.*



MRI

Magnetic Resonance Imaging

What is Magnetic Resonance Imaging?

Although the name sounds imposing, our open MRI is completely non-invasive, and really quite comfortable. It is one of the safest and most advanced medical imaging techniques available today. Magnetic Resonance Imaging (MRI) lets us look inside the body without surgery or X-rays and produces remarkably clear pictures of your head, spine or other parts of your body.

How Does MRI Work?

Instead of X-rays, MRI uses magnetism and radio waves to gather information about your body. Our Siemens Magnetom Espree MRI scanner consists of a strong magnet with a special radio frequency transmitter and receiver. The MRI scanner identifies atoms in your body, and using sophisticated computer equipment creates a high resolution image of your internal organs, blood vessels, and tissue.

Why Would I Need an MRI?

MRI is one of the most effective ways of looking inside you. It is especially useful in determining stroke, tumors, multiple sclerosis, blood clots or pinched nerves. It is also useful in displaying anatomy, helpful for patients with trauma, congenital abnormalities or after surgery. We always save the information from your MRI to a computer CD-ROM or DVD. The images are reviewed using specialized software, which helps to make a speedy and sophisticated assessment of your condition and allows review by other physicians and medical professionals.

The Relaxation Room

Advanced technology and superb staff training aren't all we offer here at CNMRI. We also offer care, compassion, and some extra treats for your emotional well being.

Check in for an MRI examination at CNMRI and we'll take you to an oasis of comfort – our relaxation room. There you can enjoy a quiet break until it is time for your study.

One of the only MRI centers in the area to offer this feature, we have specially designed this room to help you feel calm and refreshed for your study. Relax into a state of bliss with soft lighting, our deluxe massage chair, and our wide screen, high definition seascape.

Patients who experience claustrophobia or have other anxieties about their testing find this amenity especially soothing.

All of this pampering gets you in the right frame of mind and eases your body of stress. After a visit to our relaxation room, you may even find yourself snoozing during your MRI!

Pinched Nerves...

A pinch – when you are in one, all you want is to get out. And when a nerve is pinched, taking care of it is even more crucial.

Your nerves are your brain's communication system to your arms, legs, muscles, even your skin. If your nerve becomes compressed or pinched, the nerve will eventually lose or alter it's ability to transmit the tiny electrical charges essential to sensation and movement.

So what exactly is a pinched nerve? Sometimes referred to as nerve entrapment or nerve compression, a pinched nerve is compression, constriction or stretching of nerves that control muscle movements or relay sensations to the brain. Pressure or compression disrupts the nerve's function, causing pain, tingling, numbness or weakness in the affected area. You may even experience burning sensations radiating out from the affected area.

Nerves that pass near or through bones or other tissues are most susceptible to pinching, and the resulting sensations are felt most commonly along the nerves running from the shoulders to the hands, throughout the spinal column, from the buttocks down either leg, along the side of the leg, and from the pelvis to the knee. But symptoms don't always show up at the actual site of the pinched nerve. In fact, the pinched nerve in your spine might be manifesting itself in a tingling and numbness in your big toe!

We recommend that you talk to us when your symptoms begin – the severity and extent of your symptoms may not be indicative of the seriousness of your problem. As nerve compression worsens, sensations may change or even be reduced. Sometimes, patients may have a complete loss of muscle function. It is also important to remember that not all symptoms that appear to be pinched nerves are due to nerve compression. Other disease states need to be considered. But no matter what is causing your discomfort, you can count on CNMRI for the fastest and most accurate diagnosis and evaluation possible.

If you are experiencing the sensation of pins and needles, numbness, pain or burning, call us today and talk to us about your concerns.

James Lust, PAC

James Lust has had extensive training and experience in neurology, being a member of the CNMRI staff for over 14 years. He received his Bachelor of Science in Biology from Eastern Washington University in 1979 and his physician assistant degree from Essex Community College. He is a member of the National Commission of Certified Physician Assistants, The Delaware Academy of Physician Assistants, The Delaware State Regulatory Council, and serves on the board of directors at the Central Delaware Christian Academy.

Evelyn Greenwood

Patient of Dr. Varipapa

When I began suffering from extreme vertigo, my doctor referred me to CNMRI for more advanced diagnosis and treatment. Dr. Varipapa diagnosed my vertigo as being caused by dust particles in my ear! He showed me some simple exercises that should cure my vertigo. He was right and I am cured.

I was already familiar with the office, specifically Dr. Varipapa. I began coming with my mother-in-law, who at age 85 was being treated by them after having had neurosurgery. The help CNMRI gave her allowed her to live independently for several more years. In 2004, my husband Ed suffered a stroke and was cared for by Dr. Varipapa. Today, he walks four or more miles a day.

The office of CNMRI gives caring treatment and knowledgeable diagnosis. Dr. Varipapa is extremely intelligent and capable. We are indeed fortunate to have him as part of our community.

Peter Senft

Referral of a local physician

I am honestly an adrenalin junkie. I guess I have always enjoyed taking some risk – I have had 27 broken bones in my life – I was even a bull rider for five years. Four years ago, I had a hip replacement. Shortly after the surgery, I began to experience loss of muscle use in my thigh.

My local physician referred me to CNMRI and they diagnosed nerve damage. They did an MRI to rule out a spinal injury and determined why the nerve was dead. From a medical standpoint, I don't think there is a better choice than CNMRI. I have the utmost respect for Dr. Varipapa and his staff.

Sleep...

It's a Beautiful Thing

You actually need a lot of sleep – at least seven or eight hours a night! It's true. And though researchers aren't exactly sure of all the reasons that sleep is so important, one thing they do know ... your body restores itself during sleep. Muscle tissue is repaired during sleep and growth hormone is secreted. This is important not only for growth in children but it also helps rebuild and rejuvenate adult tissue. When they call sleep beauty sleep, they meant it.

Sleep improves the appearance of your skin and even improves muscle tone! But it isn't only your appearance that's affected. Sleep deprivation reduces creativity, memory and cognitive function. You're more prone to errors. Coordination suffers, sense of humor disappears, and because the immune system needs sleep to operate properly, illness occurs.

Here is what the average person needs to sleep at night:

Infants/Babies*	0-2 months: 10.5-18.5 hours 2-12 months: 14-15 hours
Toddlers/Children*	12-18 months: 13-15 hours 18 months-3 years: 12-14 hours 3-5 years: 11-13 hours 5-12 years: 9-11 hours
Adolescents	8.5-9.5 hours
Adults	7-9 hours

* Total time includes naps.

Why Don't I Feel Rested?

Even if you spend seven to nine hours in bed, you may not be getting enough sleep because of a disorder such as insomnia, sleep apnea or even restless legs syndrome.

Benefits
of regular treatment

- Increased energy and attentiveness during the day
- Lower blood pressure
- Decreased risk of strokes and heart attacks
- Increased effectiveness at home or at work
- Improved quality of life

Mildred M. Cudworth, RPSGT
Sleep Disorders Center Clinical Manager

Millie Cudworth takes pride in her work at CNMRI. "I love working one-on-one with our physicians on diagnosis and treatment," says Millie. "Our sleep specialists are very conscientious and committed to treating and educating our patients, our community, and other professionals on sleep disorders." Mildred is also in charge of our CPAP Clinic, set up to improve patient care and compliance.

Millie is a graduate of Gwynedd-Mercy College and has studied at the Atlanta School of Sleep Medicine, the California College for Health Sciences Polysomnographic program and is registered by the Board of Registered Polysomnographic Technologists.

It Could Be More Than Snoring

Obstructive Sleep Apnea

What is sleep apnea? Obstructive Sleep Apnea is a debilitating sleep and breathing disorder. People with OSA stop breathing repeatedly throughout the night. Why? Because their airway collapses. This obstruction is often due to extra tissue in the airway, a large tongue, or decreased muscle tone keeping the airway obstructed. When this happens, air is prevented from getting into the lungs for 10 seconds or more, five or more times an hour.

When your breathing is interrupted by an obstruction in the airway, your body reacts to save your life – it wakes enough to let you start breathing again. This life-saving reaction could be waking you up hundreds of times each night! OSA ensures that you never get a full and restful night's sleep. All those rousings keep you out of REM and deep-sleep stages, leading to chronic daytime exhaustion and long-term stress on your heart and nervous system. OSA afflicts 20 million adult men and women in the US. And those are just the documented cases. While OSA causes your body to wake you, most OSA sufferers do not rouse from their sleep enough to become aware of any loud snoring, choking or gasping for air so typically associated with obstructive sleep apnea.

The most common symptoms to be aware of include:

• Excessive daytime sleepiness • Loud snoring
• Gasping or choking during sleep • Obesity • Large neck

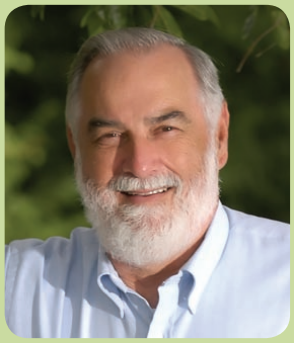
If you are experiencing any of these OSA symptoms, give us a call. It could save your life!

The importance of treatment should be obvious, but there are a few more incentives. People who do not get effective treatment for OSA can be at risk for a number of potentially life threatening health conditions, such as heart disease, high blood pressure and stroke. And because it causes uncontrollable daytime sleepiness, OSA can markedly increase the likelihood of driving accidents.

If a threat to your life isn't enough to convince you to seek treatment, try decreased performance both sexually and at work, forgetfulness, irritability, trouble completing tasks and concentrating and even depression. OSA simply decreases the quality of your life both at home and at work.

John B. Coll, DO

Dr. Coll, a Delaware native, joined Dr. Varipapa and CNMRI in 1989. A graduate of the Philadelphia College of Osteopathic Medicine, he completed his residency as the chief neurology resident at Temple University Hospital, and is board certified in sleep medicine and neurology. He's been practicing sleep medicine for more than 15 years and is the Director of CNMRI's Sleep Disorders Center. He is a member of the American Academy of Neurology, the American Academy of Sleep Medicine and the Epilepsy Foundation of Delaware.



Richard Remsburg
Patient of Dr. Coll

I snored – badly! Of course I didn't hear myself snoring so I really can't tell you whether it was true or not. I always did feel a little cloudy and I napped a lot, even though I went to bed at 9:30 PM and woke at 8:30 AM. My daughter is a physician and she told me that I needed to have a sleep study, so my family physician referred me to CNMRI.

Everyone here is so nice, putting you instantly at ease. Dr. Coll diagnosed me as having a mild sleep disorder and ordered a CPAP machine for me. CPAP is like my sleep seatbelt. When I wear it, I know I am going to sleep well. When it isn't on, it just feels wrong. Now I get more sleep, I feel rested, and my blood pressure is even lower!

Peter Coveleski, DO

A graduate of the Philadelphia College of Osteopathic Medicine, Dr. Coveleski has always been interested in the musculoskeletal neurosystem. He interned at Riverside Hospital in Delaware from 1989 to 1990 and completed his residency at the JFK Johnson Rehabilitation Institute, an affiliate of the Robert Wood Johnson University Hospital and Medical School. He is the medical director of the Bayhealth Medical Center Rehabilitation Unit and runs the Bayhealth Medical Center Prosthetic and Orthotic Clinic.

Dr. Coveleski has lectured on spasticity, sports injuries and bracing. He is a member of the American Academy of Physical Medicine and Rehabilitation, the Delaware Academy of Physical Medicine and Rehabilitation, the Sussex County Medical Society and the International Rehabilitation Medicine Society.

Stroke

Robert Jones
Patient of Dr. Coveleski

In 1981 I had a car accident and some time after I began having seizures and experiencing strokes. The strokes caused spasticity and limited the use of my left side. My left hand would clench into a fist and I couldn't do anything to control it.

After I graduated from college and began to go on job interviews, I found myself severely limited by the spasticity. My self esteem was really suffering.

CNMRI has helped me feel normal again. Dr. Coveleski has been treating me with BOTOX injections for the spasticity and I am receiving rehab therapy. I tell everyone what a great place this is!

Stroke – *A New Hope*

Every year, about 700,000 Americans suffer a new or recurring stroke. That is devastating enough, but for a stroke victim, disabling wrist, hand or elbow spasticity can make life even worse. Spasticity is best described as a markedly increased tightness of muscles, which occurs when there is damage to the central nervous system. It affects up to 30 percent of stroke survivors and often keeps them from dressing, eating and performing activities of daily living. It can also lead to pain and constant discomfort and even contractures, a condition that leaves the muscles and tendons permanently shortened.

Now there is hope. Recent research indicates that treatments with "BOTOX®" or botulinum toxin type A, significantly improves muscle tone and reduces spasticity and pain. The results of botulinum injections are usually very helpful. Dr. Coveleski is the area expert in the use of BOTOX for the treatment of spasticity.

The BOTOX procedure is simple and almost painless. It does cause localized weakness, but this is actually the desired result. When the muscles relax, range of motion exercises and other spasticity-reducing techniques can be used to astonishing effect. The combination of BOTOX and physical therapy, with stretching and splinting, may result in dramatically increased range of motion and function. That means a more independent life-style and renewed sense of self.

BOTOX injections are offering hope to patients with a wide variety of movement disorders. Common uses include the treatment of writer's cramp, twisting of the neck, and other muscle contractions in the neck. Dr. Coveleski and Dr. Penny specialize in this area of practice. Call us today for more information.

Stroke Prevention and Treatment

Every year, millions of people experience the devastating effects of a stroke. Strokes occur when a blood vessel in the brain suddenly bursts or when the blood supply to part of the brain is suddenly stopped. The interruption of blood flow and nutrients or sudden bleeding causes brain cells to die.

If you experience any of these symptoms, get help immediately. Every second counts:

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding what is being said
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause

Though strokes can lead to disability and death, many strokes are preventable, and there are important steps you can take to lower your risk. Moreover, new advances in imaging and rehabilitation have shown that the brain can compensate for function lost as a result of stroke. Call us today for more information about the diagnosis, treatment and prevention of strokes.

Maria Ionita, MD

Dr. Ionita may love art and the theatre but her real passion is helping people. She chose medicine for that very reason and neurology has given her the opportunity to help in a very tangible way.

She graduated from Carol Davila University of Medicine and Pharmacy in Bucharest, Romania. She completed her residency at JFK Neuroscience Institute and Jersey City Medical Center. In addition to serving as chief resident, she was part of several clinical trials and involved in research.

She is a member of the American Academy of Neurology, the American Medical Association, and the Romanian Organization Against Epilepsy (affiliated with the International League Against Epilepsy).

Patricia Kilby
Patient of Dr. Ionita

I had involuntary head tremors that were terribly embarrassing. I felt self-conscious all the time. I became apprehensive about going out in public. It was awful. I was at the bank one day and the clerk was counting out my money. She had finished and looked up and then immediately started over again. I couldn't understand what she was doing until I realized that my head was shaking "No" at her. I wasn't even aware that I was moving my head at the time.

My family physician referred me to CNMRI. Dr. Ionita is evaluating me and observing my symptoms. This is a wonderful place. I have limitless confidence in Dr. Ionita and the rest of the staff. They are brilliant and caring. I don't think I could be in a better place.

Electrodiagnostic Testing

When Walt Whitman wrote his famous poem "I Sing the Body Electric," he wasn't just being metaphorical. Your body really is an electrical generator.

Your nerves and your muscles create electrical signals that deliver messages to and from your brain. The nerves we call "motor nerves" deliver signals from the brain to activate your muscles, often as a response to the sensory nerves. The sensory nerves deliver information about your surroundings to the brain. But if you have suffered an injury to your nerves or muscles or a disease, it can slow the movement of these electrical signals, or even stop them completely. Electrodiagnostic studies such as EMG or NCS allow doctors to evaluate how well nerves are functioning.

NCS

NCS or Nerve Conduction Studies are done to detect and evaluate damage to the peripheral nervous system, which includes the nerves that lead away from the brain and spinal cord as well as the smaller nerves in the arms and legs.

During the NCS, small electrodes are attached to the skin of the arms or legs and an electrical stimulus is used to see how well the nerves respond.

Measuring the electrical activity in muscles and nerves can help detect the presence, location, and extent of diseases that can injure muscle tissue (such as myopathy or muscular dystrophy) or nerves. EMG studies are commonly performed to rule out injuries such as carpal tunnel or sciatica.

EMG

EMG or Electromyography is used to diagnose diseases that damage muscle tissue, nerves, or the junctions between nerve and muscle (neuromuscular junctions).

During the test, a very small needle electrode is placed in several muscles. The needle is very small and delicate, much like an acupuncture needle. Most patients feel very little discomfort, which is usually short-lived.

Jay L. Freid, MD

Dr. Freid received his MD from the University of Michigan College of Medicine and completed post-graduate work in physical medicine and rehabilitation at the Ohio State University Hospital College of Medicine. He is board-certified in physical medicine and rehabilitation.

Dr. Freid is also a member of the American Association of Electrodiagnostic Medicine and is board certified by the American Board of Electrodiagnostic Medicine.

Stephen F. Penny, MD

Dr. Penny graduated from Jefferson Medical College and completed his internship at Portsmouth Naval Hospital and his residency at the National Naval Medical Center-Bethesda, MD. He completed a fellowship in neuromuscular disease at Duke University Medical Center, Durham, NC in 1994 and joined CNMRI shortly thereafter. He specializes in EMG and neuromuscular disorders.

He is a current member of the American Academy of Neurology, the American Medical Association, the American Association of Electrodiagnostic Medicine and the Delaware Medical Society.

Carpal Tunnel Syndrome

You have stopped being able to carry a bag. You wake up with numbness and pain. Your fingers tingle and your wrist hurts. And all of this is in the wrist and hand you use most. It's not only frustrating, it keeps you from doing your work! What exactly is going on?

You could be experiencing the symptoms of carpal tunnel syndrome, one of the more common disorders we see at CNMRI.

Your wrists and hands contain a delicate and complex bundle of nerves, bones and tendons. And they get used – a lot! Overuse of the hands or injury to the wrist can cause swelling of your tendons, which then compress or pinch a nerve. That's where carpal tunnel syndrome begins.

The area where the nerve enters the hand is called the carpal tunnel. Since the passageway is rigid, any swelling in this area will put pressure on the nerve, keeping it from transmitting or receiving necessary electrical signals. And it really doesn't take a traumatic injury to cause the swelling. This painful syndrome often develops as a result of repetitive motions in work or play, such as sports, sewing, handicrafts and using motorized tools.

To accurately determine your carpal tunnel syndrome diagnosis, doctors routinely request an EMG to test nerve function. Electrical activity is measured, from which it is possible to determine if there is irritation or compression of a nerve and where that compression is located.

Diagnosis is extremely important. If your condition is discovered and treated early enough, there are usually no complications. But if you ignore the symptoms and carpal tunnel goes untreated, the nerve can become irreversibly damaged, resulting in permanent weakness, numbness and tingling.

Why wait until the damage is irreversible? Call us with your questions or to request an evaluation. Or visit our web site for more information.

Raid M. Kofahi, MD

"I have always been fascinated by the brain and the nervous system. As the knowledge base in neurology expands, my fascination grows," says Dr. Kofahi. "There are so many advancements in this field!" He specializes in sleep disorders, neuromuscular disorders, strokes, EMG, neuropathy, Parkinson's disease and movement disorders, multiple sclerosis and headache. Dr. Kofahi graduated from the Jordan University of Science and Technology. He has furthered his training and already impressive knowledge with post-doctoral studies at the Oklahoma University Health Sciences Center, where he completed one year of internship in internal medicine and three years of residency in neurology, followed by one year of fellowship training in EMG and Clinical Neurophysiology.

William Ward
Patient of Drs. Varipapa & Kofahi

I may be 81 years old but I am the great-grandfather of three wonderful children and I like to stay busy and active – I always have. I am a very independent person so when I started experiencing pain in my shoulders and arms that radiated into my hips I was frustrated.

I struggled with my symptoms for two and a half years. I became less and less independent and unable to do things on my own. When I fell and hit my head for the second time, I had no choice but to resign myself to using a wheelchair for the rest of my life. Thank goodness, a physician referred me to CNMRI. Dr. Kofahi did an EMG and Dr. Varipapa performed the MRI. They diagnosed me with CIDP, or Chronic Inflammatory Demyelinating Polyneuropathy. CIDP is a neurological disorder characterized by progressive weakness with impaired sensory function in the legs and arms. It is progressive but I finally feel like I have a solution. I have gained some independence because of the medications prescribed by Dr. Kofahi and physical therapy. Thank you, CNMRI.

MS | Multiple Sclerosis

MS stands for multiple sclerosis; two words that can change a life. When you hear them applied to your own health, they can be devastating. But they really don't need to be. The doctors at CNMRI have had great success with new, recently available disease-modifying treatments. Most patients continue to work, enjoy life and don't have to miss a beat in day-to-day activites and life style.

MS is a varied disease with a core of different presentations. Some patients have numbness, others weakness or loss of vision. It can be extremely confusing and worrisome. It doesn't help that there are scores of myths about MS. So, what exactly is the truth about MS? The National MS Society lists some of the most common misconceptions and the truth about what they really mean.*

MS Myths

"MS is fatal."

It isn't. Statistics show that most people with MS have a near normal life span.

"Everyone with MS will be in a wheelchair sooner or later."

Not true. Many people with MS remain able to walk without help. Only 25 percent of people with MS use a wheelchair or stay in bed because they are unable to walk, according to a well-designed survey completed before the new disease-modifying drugs became available.

"You should stop working. The stress is harmful."

There is no scientific evidence that the normal stress of working has any effect on MS. But symptoms, such as fatigue, can cause problems on the job. Approximately 30 percent of people with MS are working full-time after 20 years.

"No one can possibly understand what I'm going through."

Approximately 400,000 Americans acknowledge having MS, and every week about 200 people are diagnosed. Worldwide, MS may affect 2.5 million individuals.

Living with MS can certainly be a challenge, but we believe that your life can – and should – be as rich and flavorful as before your diagnosis with MS. Talk to us about your options. We are here to help.

** See our website at **www.cnmri.com** for more information and links regarding multiple sclerosis.*

Brenda Piccolo
Patient of Dr. Penny

I was experiencing debilitating discomfort – I had numbness, pain, tingling in my hip and the first doctors I saw all had a different diagnosis and wanted to treat me with pain medications. I'd look in my medicine cabinet and just marvel at the range of medicines that had been prescribed to me. I began to wonder if I was crazy. I became depressed and filled with anxiety, confusion and fear. Finally, a doctor referred me to CNMRI and they provided me with a diagnosis: I had MS.

Of course, I was still frightened and overwhelmed, but knowing that it wasn't all in my head really restored my confidence in myself. They let my fiancé David accompany me to every test and treatment. It was so comforting to have someone I love right there, holding my hand.

Dr. Penny was so great. If it wasn't for him, I don't know where I would be today. I have regular treatments, stay active and watch my diet. I feel better than I have in years! Dr. Penny provides me with all the care and answers for my best health. I couldn't be more grateful. They gave me my life back.

David Mosley
Referral of a local physician

I ride motocross motorcycles, and over the years I have had 36 broken bones. I've always healed well but when I dislocated my shoulder recently, I couldn't figure out what was wrong. Two months went by and the pain didn't get any better. X-rays were performed but nothing was broken. That's when I was referred to CNMRI by my local physicain. I had been here regularly with my fiancée, Brenda, and I knew how careful and thorough they were. They had really helped us through a tough time when Brenda was diagnosed with MS and I struggled with not knowing what to do to help her. I trust everyone on this staff.

Joel M. Rutenberg, MD

A graduate of Jefferson Medical College, Dr. Rutenberg has always been interested in medicine. At age 10, he began searching the World Book Encyclopedia for all the diseases he had ever heard about. "I dreamed of becoming a doctor," says Dr. Rutenberg. "At 18, I had a summer job as an 'orderly' in my hometown community hospital which motivated me to try for medical school." In medical school he had a special fascination for the nervous system. "I think I favored neurology because of my mother who has had multiple sclerosis since I was a young child."

After medical school, Dr Rutenberg completed residencies at Thomas Jefferson University and the University of Michigan Medical Center. He then completed an EEG fellowship at Hahnemann Medical College. He is a member of the American Academy of Neurology, was elected to the Philadelphia College of Physicians, and lectures for Bayhealth Continuing Medical Education.

Jarrod Lippi

Patient of Dr. Rutenberg

I attended night school at New York Culinary Institute to pursue my love for cooking. I eventually opened my own family restaurant, Nick's, in the Bronx with the assistance of my uncle.

About fifteen years ago my hands and feet started to go numb. I simply chalked it up to stress. I eventually sold Nick's and began training to become an ultrasound technician. I did well in my studies and landed a job at a hospital in Delaware. I was working steadily for a few months when I was reassigned to a hospital in southern Delaware.

The numbness in my extremities started increasing. I realized it was time to have a physician examine the situation. I was diagnosed with multiple sclerosis (MS). I was blown away by the diagnosis.

I was really pleased to find help at CNMRI. The staff is fantastic and I feel that I have developed lifelong friendships. Best of all, Dr. Rutenberg has helped me cope with this disease in a very positive way. I ride horses at a facility that specializes in providing riding therapy for people with disabilities. I have my master's degree and a great job helping others with disabilities at the Freedom Center for Independent Living. I am really grateful to be able to keep on enjoying life!

Neurology

Headaches - is it Sinuses? Migraines? Help!

Headaches are common. Just look at the ads with all the remedies on TV. Or think about how often you, a family member or friend experience headaches.

Many times, the cause of the headache is not clear. Sinus disease gets blamed a lot, but in actuality, it rarely causes a headache.

Headaches that affect your day-to-day life, that come with nausea or aversion to bright lights or noise, may be due to migraines, a condition seen in up to 25 percent of women and 10 percent of men!

Some migraine sufferers experience an amazing array of symptoms before the headache, from altered mood and zigzag lights to unusual sensations or even weakness or double vision. But they all lead to one thing – debilitating, severe headaches.

Untreated, migraines can interfere with almost all aspects of your life.

While there may not be a cure for migraine headaches, there is treatment. First, you'll need an evaluation to confirm the cause of your headaches. Sometimes, laboratory studies or an imaging study of the brain will be done. Once the diagnosis of a migraine is made, treatment can begin.

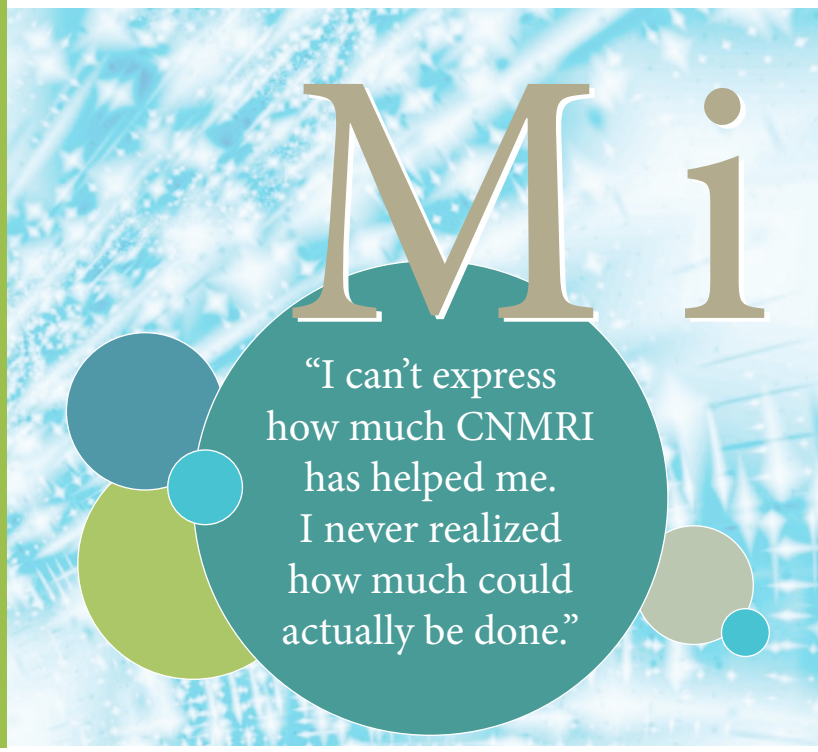
Since lifestyle will affect headache frequency and severity, we may ask you to track occurrences of the headache with a diary. We'll work to discover your personal triggers and teach you to avoid them, if possible. Two types of medications can be given. Abortive medicines are used to stop the headache in its tracks. Preventative medications are given to reduce headache frequency and severity.

Each migraine is as individual as the person experiencing it. Contact us today if you would like more information regarding headaches and migraines.

Debra Mason
Patient of Dr. Kofahi

I had headaches as a child that developed into severe migraines as I got older. I also had petit mal seizures and though they were not linked to the migraines, they made life difficult. Doctors couldn't help me and I felt there was a real lack of compassion. The migraines kept me from working and all of this was affecting my children – they were afraid for me all the time. I couldn't even drive! I finally became really sick and the emergency room doctor referred me to CNMRI.

I can't express how much CNMRI has helped me. I never realized how much could actually be done. I feel more emotionally together because I don't wonder if I am crazy. I now have access to relief, my symptoms have been less frequent and severe. I am no longer a prisoner to my pain. I'd tell anyone to go see Dr. Kofahi at CNMRI. It will change your life – it changed mine!



Jill Shelton

Patient of Dr. Rutenberg

I have three amazing children, two of whom we adopted from China. I have been home-schooling them, but I have had severe migraines that began to drastically interfere with my life. The migraines became so debilitating that I felt I couldn't function in daily life, much less give our children all the extra attention that they needed. I could not stick to my daily routine, I was extremely light sensitive, and the nausea would sometimes be overwhelming. I just couldn't maintain our lifestyle.

The moment I stepped into CNMRI, I knew I was in the right place. Everyone here is so caring and extremely nice. They absolutely go out of their way to accommodate. They have called me at home just to check on me. Dr. Rutenberg and his team always go the extra mile to make sure I am getting the care I need.

Since my treatments have begun, Dr. Rutenberg and I have been working on a pain management plan. My migraines have improved in an astonishing way. The best part is that I can enjoy my family again!

Lilia Lopez-Brekke

Patient of Dr. Varipapa

I had terrible migraines. I was in extreme pain and exhausted from it. I tried several options but nothing worked. I just wanted a resolution so I could study and live my life. I began to think that I couldn't do anything because my family has a history of migraines.

I never even considered going anywhere but CNMRI because they have such a great reputation. This place is fantastic – the staff is wonderful and caring, the experience is relaxing and they even had music I like during my MRI. Everything about CNMRI is cool and their treatments work! I have been headache free for an entire month!

"My migraines have improved in an astonishing way. The best part is that I can enjoy my family again!"

graines

Seizures/Epilepsy

It happens so suddenly. Your precious child is mysteriously affected, sometimes by slightly odd staring or brief loss of awareness, sometimes accompanied by mouth twitching or eye blinking, sometimes with something much more startling. Could it be epilepsy?

The brain has many jobs, all carried out by small electrical impulses. When things are going right, millions of these electrical charges pass between nerve cells in the brain and throughout the body, controlling all kinds of functions. But sometimes there is a 'short circuit' – epileptic seizures are caused by unusual and strong bursts of electrical energy in the brain. To watch this happen to your child can be frightening.

Know that you are not alone. Epilepsy is the most common serious pediatric neurologic diagnosis affecting children. In fact, about 1 in 100 children has epilepsy.

Your child may experience seizures of various types: when the seizures arise from one part of the brain, they are called focal seizures and when they originate from both sides of the brain they are called generalized seizures.

To diagnose the seizure type and determine a course of treatment, we perform a variety of comprehensive tests, including EEG, Video EEG monitoring and neuroimaging such as MRI. Just the thought of seizures can be frightening to you and your child, so we have made our pediatric neurology area relaxing, comfortable and fun. Both children and parents are instantly put at ease with Dr. Gundakaram's obvious expertise, engaging personality and extra gentle touch.

We know how difficult it is to find out that your child is sick – we are parents, too. We are here to help. It is comforting to know that our professional staff can effectively diagnose and treat your child's pediatric neurological difficulties in a safe and child-friendly environment. That's care you and your child can count on.

In Good Hands

Anand Gundakaram, MD MRCPCH (UK)

When children come to CNMRI they can be sure they are cared for with skilled, gentle and caring hands – the capable hands of Dr. Anand Gundakaram. He was included in the *Guide to America's Top Pediatricians,* 2007 Edition by Consumer's Research Council of America.

Dr. Gundakaram is committed to providing excellent pediatric neurology care and improving the quality of life for children with neurological problems. "I like children," says Dr. Gundakaram. "I want to make a difference in the lives of children by treating their illnesses, reducing their pain and discomfort, but most of all, to help them function at their peak potential."

A graduate of the Sri Venkateswara Medical College in Tirupathi, India, Dr. Gundakaram has treated children from Ireland to Jamaica.

He is a member of the American Medical Association, the American Academy of Neurology, the Child Neurology Society and the Royal College of Pediatrics and Child Health, London, UK.

Children feel safe at CNMRI and parents know they are getting the best treatment possible.

CNMRI is absolutely child-friendly. We know how overwhelming it can be to come in for an evaluation, so we have made sure that each room is decorated in ways children will find fun and relaxing. There are plenty of toys in each room to delight your child while being evaluated or while you are talking to Dr. Gundakaram. We even have an exam table shaped like a bright red fire truck.

The National Sleep Foundation has suggested that you use this helpful checklist to assess the quality of your sleep. *Check if any of the following apply to you:*

- ☐ I snore loudly.
- ☐ It has been observed that I stop breathing or gasp for breath during sleep.
- ☐ I feel sleepy or doze off while watching TV, reading, driving or while engaged in daily activities.
- ☐ I have difficulty sleeping 3 nights a week or more (e.g., trouble falling asleep, wake frequently during the night, wake too early and cannot get back to sleep or wake unrefreshed).
- ☐ I feel unpleasant, tingling, creeping feelings or nervousness in my legs when trying to sleep.
- ☐ I experience interruptions to my sleep (e.g.,nighttime heartburn, bad dreams, pain, discomfort, noise, sleep difficulties of family members, light or temperature).

* *If you experience any of these symptoms, you are probably not getting enough of the crucial, body building sleep you need because of a sleep disorder.* *See page 7 for more information.*

When choosing where to have your tests done…

CNMRI

{ C Center (for)
N Neurology
M Musculoskeletal Disorders
R Rehabilitation (and)
I Imaging

- Ask to take a preliminary tour of the facility you are considering. If anything makes you feel uncomfortable or nervous, talk to your doctor.
- Check up on the training and credentials of the MRI center staff and specifically ask who will be interpreting your MRI.
- Read up on MRI technology so you can be sure that your testing is done with the latest, most accurate equipment.
- Don't be afraid to ask questions. There are no unnecessary questions when it comes to your health.
- Ask how long your scan will take. Some MRI machines take up to an hour for a scan while others take only ten or fifteen minutes!

Learn More Inside!

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