Effective April 1, 2008, the four US regional Medicare Administrative Contractors are implementing a new reimbursement policy covering the use of intermittent catheters. The main policy change now allows an intermittent catheter user a maximum of 200 catheters per month instead of 4 catheters per month under previous policy. The change may help reduce urinary tract infections and improve the quality of life for intermittent catheter users. Ask your health care provider or contact Medicare to find out more information.

In the April 2 issue of the Journal of Neuroscience, Northwestern University researchers have shown that a nano-engineered gel inhibits the formation of scar tissue at the injury site and enables the severed spinal cord fibers to regenerate and grow. The gel was injected as a liquid into mice with a spinal cord injury, and the mice had a greatly enhanced use of their hind legs after 6 weeks. Now Northwestern researchers are working on developing a gel that is acceptable for human use. If the gel is approved for humans, a clinical trial could begin in several years.

AssistiveWare® made two recent announcements. First, www.AssistiveGaming.com is a new web site created by and for Mac users with disabilities and provides information on how people with physical disabilities can enjoy the latest and greatest games on Mac OS X. Second, AssistiveWare® (www.assistiveware.com) released new versions of its products: KeyStrokes® 4, SwitchXS® 2.5 and LayoutKitchen® 2.

Kingfisher Healthcare (www.kfhealth.com/) has released a new, Bio-Electric Stimulation Therapy device designed to heal different types of chronic wounds such as venous ulcers, pressure sores and diabetic ulcers, even where they have been open for longer than a year. It works by delivering extremely low levels of current to wounds through electrodes that are placed a distance away from the wounds, completely outside the normal treatment areas.
Is it a Heart Attack?

A Myocardial Infarction, or heart attack, is a leading killer of both men and women in the United States. A heart attack occurs when blood flow to a section of heart muscle becomes blocked. If the flow of blood is not restored quickly, the section of heart muscle becomes damaged from lack of oxygen and begins to die.

Signs and Symptoms of heart attack can vary. Not all heart attacks begin with a sudden, intense pain that is often shown on TV or in the movies. To the contrary, many heart attacks start slowly as mild pain or discomfort. And some people do not have any signs or symptoms at all (this is called a silent heart attack). However, the list of possible signs that a heart attack is occurring include:

- Chest discomfort that may feel like pressure, squeezing, fullness, or pain. This condition is also referred to as “angina,” and the discomfort may last for more than a few minutes or come and go.
- Discomfort in other areas of the upper body including one or both arms, the back, neck, jaw, or stomach.
- Shortness of breath, which may or may not accompany chest discomfort.
- Other symptoms such as breaking out in a cold sweat and experiencing nausea or lightheadedness.

The pain impulses associated with a heart attack normally travel along the upper thoracic (T1 - T5) nerves to the brain. Although women are less likely than men to report chest pain or discomfort during a heart attack, both men and women commonly experience heart attacks similarly.

Research suggests that individuals with spinal cord injury (SCI) are at an increased risk for heart attacks. Individuals with lower levels of injury should be able to recognize typical signs of a heart attack. However, most individuals with injury levels above T6 will not likely experience the usual signs of a heart attack, if nerve signals to the brain are blocked due to injury.

In the absence of chest pain and discomfort in the upper body, individuals with higher levels of injury should look for other warning signs of heart attack which include:

- Jaw pain
- Neck pain
- Toothache
- Autonomic dysreflexia (AD)
- Increase or decrease in spasticity
- Nausea
- Shortness of breath
- Abnormal fatigue

Without the normal warning signs, a heart attack may go unrecognized by individuals with SCI, as well as their health care providers. After all, conditions such as AD, nausea, and changes in spasticity can be symptoms of a number of common problems following SCI. And even if chest pain and discomfort are present, these symptoms may be mistaken as gastroesophageal reflux, which is common after SCI.

To avoid a delayed or missed diagnosis, an EKG can be given to reveal evidence of current or past heart problems. Pharmacologic stress tests are also preferred over traditional treadmill or handcycle exercise stress tests for all individuals with SCI because of their physical limitations.

With the SCI population getting older, heart attacks are a growing concern. Anyone who experiences signs of having a heart attack should immediately call 9-1-1 for emergency medical care. The quicker you act, the better your chances are to minimize damage to your heart. Simply put, you may be risking your life if you ignore warning signs or take a “wait and see” approach for symptoms to ease. If you are having signs of a heart attack, Act!

**Hypothermia for Spinal Cord Injury**

BACKGROUND: Interest in systemic and local hypothermia extends back over many decades, and both have been investigated as potential neuroprotective interventions in a number of clinical settings, including traumatic brain injury, stroke, cardiac arrest, and both intracranial and thoracoabdominal aortic aneurysm surgery. The recent use of systemic hypothermia in an injured National Football League football player has focused a great deal of attention on the potential use of hypothermia in acute spinal cord injury.

PURPOSE: To provide spinal clinicians with an overview of the biological rationale for using hypothermia, the past studies and current clinical applications of hypothermia, and the basic science studies and clinical reports of the use of hypothermia in acute traumatic spinal cord injury.

STUDY DESIGN/SETTING: A review of the English literature on hypothermia was performed, starting with the original clinical description of the use of systemic hypothermia in 1940. Pertinent basic science and clinical articles were identified using PubMed and the bibliographies of the articles.

METHODS: Each article was reviewed to provide a concise description of hypothermia’s biological rationale, current clinical applications, complications, and experience as a neuroprotective intervention in spinal cord injury.

RESULTS: Hypothermia has a multitude of physiologic effects. From a neuroprotective standpoint, hypothermia slows basic enzymatic activity, reduces the cell’s energy requirements, and thus maintains Adenosine Triphosphate (ATP) concentrations. As such, systemic hypothermia has been shown to be neuroprotective in patients after cardiac arrest, although its benefit in other clinical settings such as traumatic brain injury, stroke, and intracranial aneurysm surgery has not been demonstrated. Animal studies of local and systemic hypothermia in traumatic spinal cord injury models have produced mixed results. Local hypothermia was actively studied in the 1970s in human acute traumatic spinal cord injury, but no case series of this intervention has been published since 1984. No peer-reviewed clinical literature could be found, which describes the application of systemic hypothermia in acute traumatic spinal cord injury.


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**Emerging Drugs for Spinal Cord Injury**

BACKGROUND: This review summarizes several promising pharmacological approaches for the therapeutic management of traumatic spinal cord injury (SCI), which are either in early-phase clinical trials or nearing clinical translation.

OBJECTIVE: This review provides the reader with an understanding of the key pathophysiological mechanisms that contribute to neurological deficits after SCI. Through discussion of the mechanism(s) of action of the selected therapeutic approaches, potentially important targets to aid further drug discovery will be highlighted.

METHODS: Systematic literature review of the pre-clinical literature and clinical SCI trials related to neuroprotective, immunomodulatory and regenerative therapeutic approaches.

RESULTS/CONCLUSION: The next decade will witness an unprecedented number of clinical trials which will seek to translate key biomedical research discoveries. The promising drug-based therapeutic approaches include regenerative strategies to neutralize myelin-mediated neurite outgrowth inhibition, neuroprotective strategies to reduce apoptotic triggers, the targeting of cationic/glutamatergic toxicity, anti-inflammatory strategies and the use of approaches to stabilize disrupted cell membranes.

The ADA Restoration Act was introduced to restore the original intent of the ADA employment provisions, which was to give individuals with disabilities an equal opportunity to compete for and retain jobs based solely on their performance. This new ACT is needed because a number of Supreme Court decisions over the years have created an absurd “Catch-22” for many individuals with disabilities. Employers can say a person is “too disabled” to do the job but “not disabled enough” to be protected by the law. In fact, the Court’s decisions even deny ADA protection when an employer freely admits that it terminated an individual because of his/her disability. This is not the original intent of Congress.

It is time for you to act now! Congressional voting on the passage of the Restoration ACT will begin very soon. There is considerable opposition to this ACT, so you can help by urgently contacting your representatives at www.congress.gov or 202-224-3121. Strongly urge them to vote for the ADA Restoration Act.


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Beijing, China will be hosting the upcoming 2008 Summer Paralympic Games from September 6 to the 17th. The Paralympics are sporting events for elite athletes with disabilities, and the games were established to emphasize athletic achievements rather than disability.

The games have grown dramatically over the years. The number of athletes participating in Summer Paralympic Games has increased from 400 athletes from 23 countries in Rome in 1960 to 3806 athletes from 136 countries in Athens in 2004.

Paralympic athletes are from six different disability groups (amputee, cerebral palsy, visual impairment, spinal cord injuries, intellectual disability and individuals with disabilities who do not fit into such groups. Each is classified for competition and grouped in classes defined by the degree of function presented by the disability. Classes are determined by a variety of processes that may include a physical and technical assessment and observation in and out of competition. The classes are defined by each sport and form part of the sport rules.

The athletes compete in 20 Summer sports:

* Athletics
* Powerlifting
* Shooting
* Swimming
* Boccia
* Football 7-a-side
* Football 5-a-side
* Goalball
* Judo
* Wheelchair Fencing
* Wheelchair Rugby
* Archery
* Cycling
* Equestrian
* Rowing
* Sailing
* Table Tennis
* Volleyball (Sitting)
* Wheelchair Basketball
* Wheelchair Tennis

Get your Paralympic news, interviews, event reports and, of course, the athletic events at www.paralympicsport.tv. It is a free, 24/7 television channel broadcasting via the Internet. Check it out now!

SOURCE: www.paralympic.org
Neurons that comprise the brain work on electrical impulses known as brainwaves. The last century of neurological research has demonstrated that brainwaves of different wavelengths can be indicative of unique emotional and mental states, like a focused awareness, a meditative state, or drowsiness. Brainwaves have been used in medical research and therapy for years.

NeuroSky Inc. has developed a non-invasive, dry, bio-sensor family of products that capture the electrical waves generated by neurological activity and eye movements and translate mental state information into digital signals for simple Brain-Computer Interfaces (BCI). The wearable technology unlocks worlds of new applications in consumer electronics, health, wellness, safety, education, training, market research and a host of many more.

Stanley Yang, CEO of NeuroSky, believes that this technology adds the next layer of user interface control to video games: “We want to support the fourth-dimension in the gaming experience—incorporating the mental states of the player. When Tiger Woods hits a golf ball, there are certain mental preparations that he undergoes. We can build these aspects into the virtual game, as well!”

The product, “MindSet™,” reads and interprets different mental states associated with the headset user and transmits that information wirelessly to various platforms. Utilizing NeuroSky’s fully-embedded, ThinkGear-EM™ technology, which manages the brainwave acquisition and interpretation chores, the MindSet communicates equally well with game consoles, PC’s and mobile platforms, including cell phones. All products are designed and manufactured to meet exacting consumer specifications for quality, price, wearability, mobility and ease-of-use.

MindKit SDK is currently being sold under a licensing plan. If you want more information, you can go online and fill out the company’s inquiries form. A representative is supposed to get in touch with you and provide product literature.

SOURCE: www.neurosky.biz/

The GeeWhiz® Condom Catheter is the winner of this year’s Medical Design Excellence Awards. According to the manufacturer, the product “has a fantastically high satisfaction rating by the patients and, as important, their caregivers.”

This external condom catheter (also known as a condom sheath) highlights include:

* Patented & Patent Pending Technology for a “leak proof” seal
* Accommodates both circumcised and non-circumcised patients
* 100% Silicone Catheter
* No glue or skin adhesives required
* Easy to apply -- by one’s self or your caregiver
* Silicone GelStrip® for superior seal
* Superior condom retention while also easy to remove when needed

* QuickSnap™ connect/disconnect nozzle for use at day or night
* Urine flows when catheter bent 90°
* Non-prescription
* Medicare and qualified Private Insurance Plans approved

For optimal results, you will need to select the correct size to fit your needs. There is a size template available on the website that you can download, print, cut and use to determine your correct size.

SOURCE: www.urinedevice.com
Participate in SCI Related Research

Home-Based Weight Loss Program: You must be a person with spinal cord injury for at least 1 year, be about 15% or more above the ideal weight, and use a wheelchair. For information on participating email Mark Leader at markl@uab.edu or call 205-934-5056.

UAB Index of Motor Recovery: Validation of an Outcome Measure for Motor Recovery in Incomplete Spinal Cord Injury. You need to be at least 19 years old and less than 18 days after a traumatic spinal cord injury or more than 5 years after injury. Five 15-20 minute testing sessions will be required over the course of one year for newly injured patients and 2 sessions of the same length during a one week period will be necessary for the chronic patients. For information on participating email Pat Taylor at poharet@uab.edu or call 205-934-5463.

The Effects of Nicotine on Pain in Spinal Cord Injury Patients: You must be at least 19 years of age or older, have an SCI of at least 1 year duration and experience SCI-related pain. We are recruiting participants who are both nicotine and non nicotine users. Payment for participation provided. For information on participating email Betsy Richardson at ejrichar@uab.edu or call 205-934-3345.

Relationship Between Neurologic Exam and Bladder Function: You must be between 19 and 60 years of age, between six months and 3 years post SCI, or an individual in good health. In appreciation for your participation in this one-day study, you will receive $200 upon completion of the study. For information on participating, contact Jim Higinbotham at jhigg@uab.edu or call 205-934-2088.