



Natural Standard

The Authority on Integrative Medicine

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Natural Standard provides high quality, evidence-based information about complementary and alternative therapies, diets, exercise and nutrition. For more information, please visit www.naturalstandard.com.

The Dish on Corned Beef and Cabbage



Corned beef and cabbage is traditionally served across America on St. Patrick's Day. Recent beef recalls aside, in moderation meat may actually have some health benefits, although a significant amount of evidence seems to support a vegetarian diet.

The protein portion of this Irish feast is prepared from beef cured or pickled in seasoned brine. The corn in corned beef refers to the grains of coarse salts used to cure it. According to The History Channel, while cabbage has become a traditional food item for Irish-Americans, corned beef was originally a substitute for Irish bacon in the late 1800s. Irish immigrants living in New York City's Lower East Side sought an equivalent in taste and texture to their traditional Irish bacon and learned about this cheaper alternative from their Jewish neighbors.

A study by the Food and Nutrition Board, Institute of Medicine, the National Academies, Washington, D.C., reviewed the current dilemma consumers face when trying to reconcile differences between potential health benefits and exposure to potential toxins in meat.

Analysis estimating likely intake and exposure outcomes for young children and women of child-bearing age revealed that seafood, chicken and beef, while approximately equivalent in protein, vary in key nutrients of importance as well as in levels of certain contaminants.

The researchers concluded that increasing the variety of choices among meats, poultry and seafood and consuming them in amounts consistent with current dietary guidelines and advisories will help meet nutritional needs while reducing exposure to any single type of contaminant.

Bone fracture rates were compared at the University of Oxford, Oxford, UK, in four diet groups: meat eaters, fish eaters, vegetarians and vegans.

The study found that those who consumed meat had a slightly lower risk of bone fractures; however, the study authors noted that fracture risk was similar for meat eaters, fish eaters and vegetarians. They attributed the higher fracture risk in the vegans to their considerably lower mean calcium intake.

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Another study ascertained that consumption of cured meats, such as corned beef, does not increase the risk of adult-onset asthma. However, study data did suggest a possible correlation between cured meat and an increase in the adverse effects of smoking, including an increased risk of chronic obstructive pulmonary disease.

More evidence seems to support cabbage as a healthy dietary choice. Extracts of the vegetable have been studied for their anticancer, antifungal, anti-inflammatory and cholesterol-lowering activities.

Cabbage (*Brassica oleracea*) is a plant of the family Brassicaceae (or Cruciferae). It was used by the ancient Greeks and Romans for its medicinal properties.

In European folk medicine, cabbage leaves are used to treat acute inflammation. A paste of raw cabbage may be placed in a cabbage leaf and wrapped around the affected area to reduce discomfort. Cabbage contains significant amounts glutamine, an amino acid, which has anti-inflammatory properties.

It is also a source of indol-3-carbinol, or I3C, an adjunct compound for recurrent respiratory papillomatosis, a disease of the head and neck caused by the human papillomavirus (HPV), which causes growths in the airway that can lead to death.

Researchers from the Norwegian University of Life Sciences in Norway, explained that Brassica vegetables are the predominant dietary source of glucosinolates (natural compounds believe to be powerful antioxidants) and have been shown to possess anticancer properties.

An Italian study found that juice made from extracts of cabbage had antifungal effects and may therefore be useful in the prevention of certain diseases.

And finally, a Japanese study found that a beverage containing cabbage and broccoli had cholesterol-lowering effects.

Overindulgence in green beer is not recommended.

For more information on meat or cabbage, please visit [Natural Standard's Foods, Herbs & Supplements](#) database.

To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

References:

- 1) Appleby P, Roddam A, Allen N, et al. Comparative fracture risk in vegetarians and nonvegetarians in EPIC-Oxford. *Eur J Clin Nutr.* 2007 Dec;61(12):1400-6. Epub 2007 Feb 7. [View Abstract.](#)
- 2) Sisti M, Amagliani G, Brandi G. Antifungal activity of *Brassica oleracea* var. botrytis fresh aqueous juice. *Fitoterapia.* 2003 Jul;74(5):453-8. [View Abstract.](#)
- 3) Takai M, Suido H, Tanaka T, et al. [LDL-cholesterol-lowering effect of a mixed green vegetable and fruit beverage containing broccoli and cabbage in hypercholesterolemic subjects]. *Rinsho Byori.* 2003 Nov;51(11):1073-83. [View Abstract.](#)
- 4) The History Channel. St. Patrick's Day. www.history.com. Accessed February 29, 2008.
- 5) Varraso R, Jiang R, Barr RG, et al. Prospective study of cured meats consumption and risk of chronic obstructive pulmonary disease in men. *Am J Epidemiol.* 2007 Dec 15;166(12):1438-45. Epub 2007 Sep 4. [View Abstract.](#)
- 6) Volden J, Wicklund T, Verkerk R, et al. Kinetics of Changes in Glucosinolate Concentrations during Long-Term Cooking of White Cabbage (*Brassica oleracea* L. ssp. capitata f. alba). *J Agric Food Chem.* 2008 Feb 28. [View Abstract.](#)

7) Yaktine AL, Nesheim MC, James CA. Nutrient and contaminant tradeoffs: exchanging meat, poultry, or seafood for dietary protein. Nutr Rev. 2008 Mar;66(3):113-22. [View Abstract](#).

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Blueberry Extract for Obesity



Blueberry extracts may help reduce food intake thereby fighting obesity, a new study reports.

Obesity occurs when an individual has an increased amount of body fat. It is usually defined as being 20-30 percent above the normal body weight for someone of the same age, gender and height. Morbid obesity is usually defined as being 50-100 percent above the normal body weight for someone of the same age, gender and height.

Obesity can have serious long-term effects on health. Individuals who are overweight have an increased risk of developing many life-threatening illnesses including heart disease, high blood pressure, stroke, diabetes, osteoporosis and cancer. According to the American Heart

Association, obesity was associated with nearly 112,000 deaths in 2005.

In the United States, obesity is considered an epidemic. More than half of all Americans are considered overweight and about 20 percent of children are overweight. According to the American Heart Association, nearly 33 percent of Americans are considered obese, and these numbers continue to grow.

Researchers from New Zealand and the United States tested water extracts of two blueberry plants (Centurion and Maru) for their ability to modify appetite in a rat model. Centurion blueberries had higher antioxidant capacity and higher total phenolic content than Maru blueberries.

The rats were fed a water-soluble blueberry extract (1 milliliter/day) of both plants for six days through a feeding tube. The study found that the blueberry extract may have the ability to elevate circulating antioxidant potentials. Both blueberry plants had a satiating influence on experimental rats, as evidenced by their ability to decrease food intake by 8.6 percent (Maru) and 6.2 percent (Centurion), although a statistically significant decrease over the control rats was achieved only for the Maru treatments.

In addition, the researchers discovered that the body weight gain of rats fed with extracts from Maru and Centurion plants decreased by 9.2 and 5.3 percent relative to the rats in the control group, respectively.

The authors reported that the reduction in food intake over a four-hour period compared to a control treatment preloaded with the same volume of water suggests that the decrease in food intake was mainly a consequence of a satiating effect, rather than any bloating or abdominal pain.

The study authors concluded that the reduction in food intake and decrease in body weight in experimental animals may not merely be a consequence of antioxidant mechanisms; blueberry extract may provide a good satiety inducer and weight management modulator.

Integrative therapies with good scientific evidence for use in obesity include 5-HTP, the Atkins diet, DHEA and psychotherapy.

For more information on these therapies, please visit [Natural Standard's Foods, Herbs & Supplements](#) and [Health & Wellness](#) databases. For more information on the condition of obesity, please visit [Natural Standard's Medical Conditions](#) database.

To comment on this story, please click [here](#) to enter the **Natural Standard** blog.

References:

- 1) Molana AL, Lilab MA, Mawson J. Satiety in rats following blueberry extract consumption induced by appetite-suppressing mechanisms unrelated to *in vitro* or *in vivo* antioxidant capacity. Food Chemistry. Volume 107, Issue 3, 1 April 2008, Pages 1039-1044. [View Abstract](#).
- 2) Natural Standard Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.

CAM Conference



Friday, April 11, 2008
Canada Olympic Park, Calgary AB

Dr. Catherine Ulbricht, Co-Founder of **Natural Standard**, will be on the vendor panel at the symposium "Evidence in Complementary & Alternative Medicine: Getting It Right" hosted by chapters of the Canadian Health Libraries Association.

The purpose of this conference is to familiarize healthcare practitioners, medical researchers and librarians with the latest issues in complementary and alternative medicine and to hear from traditional and non-traditional practitioners, researchers and librarians about integrating evidence from the CAM literature into practice and research.

The symposium will feature best practices and perspectives on CAM-related issues from speakers in a wide variety of healthcare domains. The target audience for the symposium includes health educators, traditional and non-traditional health practitioners, librarians and administrators with an interest in CAM.

The symposium is a joint venture between the Health Knowledge Network (HKN), the Northern Alberta Health Libraries Association (NAHLA) and the Southern Alberta Health Libraries Association (SAHLA) and will be held at the Canada Olympic Park ATCO Centre. HKN is Alberta's leader in providing quality published health information resources to post-secondary, health and library organizations and is a joint venture between the University of Calgary and the University of Alberta.

For further information about the program, hotel accommodation and directions to the ATCO Centre, please visit www.nahla.ca.

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Magnetic Stimulation for Ringing in the Ears

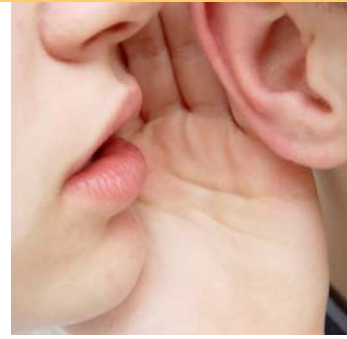
Daily sessions of repetitive transcranial (through the head) magnetic stimulation may help treat ringing in the ears or tinnitus.

Repetitive transcranial magnetic stimulation was developed by



scientists in the 1980s as a tool for neurodiagnosis, nerve fiber study and the development of a functional brain map.

In the late 1980s, scientists started to use repetitive transcranial magnetic stimulation for the treatment of depression. Over time, the use of repetitive transcranial magnetic stimulation has expanded and is currently not only used for the treatment of depression, but also to treat Parkinson's disease, auditory hallucination schizophrenia, migraines, eating disorders, obsessive compulsive disorder and other mood disorders.



Repetitive transcranial magnetic stimulation is a more specific form of magnet therapy. Magnet therapy is the use of magnets to provide health benefits. Repetitive transcranial magnetic stimulation uses a coil rather than a magnet to produce an electrical current and is specifically used on the scalp. Repetitive transcranial magnetic stimulation is a procedure in which electrical activity in the brain is influenced by a pulsed magnetic field generated by brief current pulses through figure-eight coils of wire. These wires are encased in plastic and held close to the scalp. The location of the device allows for stimulation of specific areas of the cortex (the surface of the brain).

Repetitive transcranial magnetic stimulation is non-invasive and requires no anesthesia. Few patients report any serious side effects. Mild side effects include headache and the perception of unwanted noise. These problems are typically treated with acetaminophen (Tylenol®) and ear plugs, respectively.

Researchers from Assiut University Hospital, Assiut, Egypt, compared the effects of different frequencies of repetitive transcranial magnetic stimulation and sham stimulation given daily over the left temporoparietal cortex for two weeks on 66 patients with chronic tinnitus randomly divided into four treatment groups.

Patients were assessed using the Tinnitus Handicap Inventory, self-ratings of symptoms and audiometric measures of residual inhibition before, immediately after two weeks' treatment and monthly thereafter for four consecutive months.

There were no significant differences in measures between the four groups of patients at the beginning of the study.

The study found that real repetitive transcranial magnetic stimulation produced greater improvement than sham. However, there was no significant difference between the responses to different frequencies of repetitive transcranial magnetic stimulation. The response to repetitive transcranial magnetic stimulation depended on the duration of tinnitus; patients who had tinnitus for the longest period of time were the least likely to respond to treatment.

The study authors concluded that daily sessions of repetitive transcranial magnetic stimulation over the temporoparietal cortex may be a useful potential treatment for tinnitus.

Other integrative therapies studied for the treatment of tinnitus with unclear or conflicting evidence include ginkgo, hypnotherapy, hypnosis, physical therapy, relaxation therapy and zinc.

For more information on repetitive transcranial magnetic stimulation, please visit [Natural Standard's Health & Wellness](#) database.

To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

References:

1) Khedr EM, Rothwell JC, Ahmed MA, et al. Effect of daily repetitive transcranial magnetic stimulation for treatment of tinnitus: comparison of different stimulus frequencies. *J Neurol Neurosurg Psychiatry*. 2008 Feb;79(2):212-5. [View Abstract](#).

2) Natural Standard Research Collaboration: The Authority on Integrative Medicine.

New Review Warns of Herb, Supplement and Drug Interactions

A new review by the American Academy of Family Physicians, which used the **Natural Standard** database as a source, investigated the most common herbal and dietary supplement-drug interactions associated with chronic illnesses and emphasized the need for greater awareness in this area of patient care.

Researchers from Harvard Medical School, Beth Israel Deaconess Medical Center and Tufts University explained that herbs, vitamins and other dietary supplements may increase or counteract the actions of prescription and nonprescription drugs.



The review found that approximately one in four persons taking prescription medication is also taking a dietary supplement. The review used The National Center for Complimentary and Alternative Medicine's definition of a dietary supplement and stated that a dietary supplement can be "a vitamin, a mineral, an herb or other botanical, an amino acid or other such substances or their constituents."

The review used several sources, including the Medline, Embase and Cinahl databases and an authoritative drug interaction reference. The review found that asthma, insomnia, depression, chronic gastrointestinal disorders, pain, memory problems and menopausal symptoms are the medical conditions for which supplements are most commonly used.

The review observed that patients at high risk for interactions, such as those with seizure disorders, irregular heart beat or congestive heart failure, often report dietary supplement use. These patients also tend to take more prescription medications, especially medications with a narrow therapeutic index.

The review analyzed the current regulation (or lack there of) of dietary supplements, which are not subjected to the same rigorous safety and efficacy trials and premarketing approval process required of prescription drugs. In June 2007, the U.S. Food and Drug Administration (FDA) released "good manufacturing practices" for the dietary supplement industry requiring dietary supplement ingredients to match their labels.

The researchers explained that as there is no process for systematic evaluation of dietary supplement products for possible interactions with prescription medications, the knowledge of interactions is incomplete and based on animal studies, case reports, case series, historical contraindications, extrapolation from basic pharmacology data or the clinical trial when available.

The review analyzed the interaction risks in specific patient populations including: patients taking blood thinners (anticoagulants), heart (cardiovascular) medications, psychiatric medications, laxatives, diabetes medications and medications for HIV (human immunodeficiency virus) infection.

The review authors concluded that physicians should advise patients about the safety and effectiveness of the products they are using or are considering using. Surveys suggest that two out of three patients taking prescription medications and supplements do not tell their physician about their dietary supplement use. The researchers recommended that all patients should be asked about their use of dietary supplements and these supplements should be treated as other drugs and recorded in the patient record.

To comment on this story, please click [here](#) to enter the **Natural Standard** blog.

References:

1) Gardiner P, Phillips R, Shaughnessy AF. Herbal and dietary supplement--drug interactions in patients with chronic illnesses. Am Fam Physician. 2008 Jan 1;77(1):73-8. [View Abstract](#).

2) Natural Standard Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.

Master of Applied Natural Products Program



MASSACHUSETTS COLLEGE of PHARMACY and HEALTH SCIENCES

Last year, the Massachusetts College of Pharmacy and Health Sciences (MCP) successfully launched the region's first Master of Applied Natural Products Degree program. MCP is excited about the first class of healthcare providers who are developing a new expertise in the area of natural products.

Natural Standard's co-founder, Dr. Catherine Ulbricht, teaches one of the courses.

The students are exposed to the knowledge, wisdom and experience of learned speakers and practitioners in the area of Herbal Medicine, Pharmacognosy and Phytopharmacology, Dietary Supplements, Functional Medicine, Natural Products Informatics, Epidemiology and others.

Based on the large number of inquiries received last year, MCP has made a decision to offer the program in a new format thereby making it more accessible. Starting Fall 2008, most semesters will combine a five-day hands-on, on-campus intensive experience complemented by the convenience of online course work.

This part-time master's degree program is for individuals who are interested in developing expertise in the area of natural products.

The program offers academic training to candidates with a previously earned baccalaureate degree (preferably in a healthcare-related field) who have completed prerequisite requirements.

Knowledge in the areas of natural products is helpful for students who wish to pursue careers in the specialized clinics and retail settings, natural product and pharmaceutical industry, federal regulatory agencies, drug information centers, academia or other health-related fields.

For more information, please e-mail manp@mcphs.edu.

If you would like us to post your event(s) online, please e-mail: news@naturalstandard.com.

Magnesium for Gallstones



A diet with healthy levels of magnesium may help prevent the formation of gallstones in men, a new study reports.

Magnesium is the fourth most abundant mineral in the body and is essential to good health. Approximately 50 percent of total body magnesium is found in the bones and the other half is found predominantly inside cells of body tissues and organs. While only one percent of magnesium is found in the blood, the body works hard to maintain blood levels of magnesium.

Magnesium is needed for more than 300 biochemical reactions in the body; it helps maintain

normal muscle and nerve function, keeps heart rhythm steady, supports a healthy immune system, keeps bones strong, helps regulate blood sugar levels, promotes normal blood pressure and is involved in energy metabolism and protein synthesis.

Dietary sources of magnesium include green vegetables, such as spinach, some legumes (beans and peas), nuts, seeds and whole, unrefined grains. Tap water may also be a source of magnesium, but the amount varies according to the water supply.

Recommendations for magnesium are provided in the Dietary Reference Intakes developed by the Institute of Medicine of the National Academy of Sciences. For a list of the recommended Dietary Reference Intakes, please visit the U.S. Department of Agriculture (USDA) [Food and Nutrition Information Center](#) Web site.

According to the National Institutes of Health (NIH) [Office of Dietary Supplements](#), data from the 1999-2000 National Health and Nutrition Examination Survey suggest that substantial numbers of adults in the United States fail to consume recommended amounts of magnesium. Among adult men and women, Caucasians consume significantly more magnesium than African-Americans. Magnesium intake is lower among older adults in every racial and ethnic group. African-American men and Caucasian men and women who take dietary supplements consume significantly more magnesium than those who do not.

Researchers from the University of Kentucky Medical Center, Lexington, Kentucky, and Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, explained that magnesium deficiency may cause dyslipidemia and insulin hypersecretion, which may facilitate gallstone formation.

They noted that low magnesium consumption has been associated with high fasting insulin concentrations. Chronic hypersecretion of insulin, a feature of insulin resistance, may increase the cholesterol saturation index in the bile, and thus may facilitate gallstone formation. Dyslipidemia is excess levels of blood lipids such as cholesterol, high-density lipoproteins, triglycerides, etc. and is often associated with the occurrence of diabetes and accompanied by high blood pressure.

The study examined the relationship between magnesium consumption and the risk of gallstone disease in a cohort of 42,705 U.S. men from 1986 to 2002. Magnesium consumption was assessed using a validated semiquantitative food frequency questionnaire. Newly diagnosed gallstone disease was ascertained every two years.

Researchers documented 2,195 incident cases of symptomatic gallstones during 560,810 person-years of follow-up. The average intake of magnesium was calculated to 352.8 milligrams per day for the study population.

After adjusting the results to account for age differences, the researchers calculated that men with the highest levels of magnesium intake (454 milligrams/day) were 28 percent less likely to develop gallstones compared to men with the lowest average intake (262 milligrams/day).

The study authors concluded that magnesium consumption may have a protective role in the prevention of symptomatic gallstone disease among men.

Globe artichoke has good scientific evidence in the prevention of gallstones. For more information on this and other possible integrative therapies studied for the prevention or treatment of gallstones, please visit [Natural Standard's Comparative Effectiveness](#) database.

To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

References:

1) Tsai CJ, Leitzmann MF, Willett WC, et al. Long-term effect of magnesium consumption on the risk of symptomatic gallstone disease among men. *Am J Gastroenterol.* 2008 Feb;103(2):375-82. Epub 2007 Dec 12. [View Abstract](#).

2) National Institutes of Health Office of Dietary Supplements. Magnesium. [View Fact Sheet](#).

Accessed March 10, 2008.

3) Natural Standard Research Collaboration: The Authority on Integrative Medicine.
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Adult Stem Cells for Multiple Sclerosis, Neurodegenerative Disorders



Adult stem cells may offer hope for patients with multiple sclerosis (MS) and other neurodegenerative diseases, new research suggests.

MS is a chronic, progressive, degenerative disorder that affects nerve fibers in the brain and spinal cord. It is widely believed to be an autoimmune disease, a condition in which the immune system attacks components of the body as if they are foreign.

A fatty substance, called myelin, surrounds and insulates nerve fibers and facilitates the conduction of nerve impulse transmissions. MS is characterized by damage to myelin (called demyelination) caused by the destruction of specialized cells (oligodendrocytes) that form the myelin. Demyelination causes scarring and hardening (sclerosis) of nerve fibers usually in the spinal cord, brain stem and optic nerves, which slows nerve impulses and results in weakness, numbness, pain and vision loss.

Because different nerves are affected at different times, MS symptoms often worsen, improve and develop in different areas of the body. Early symptoms of the disorder may include vision changes, such as blurred vision or blind spots, followed by muscle weakness.

MS affects over 250,000-500,000 people in the United States and may affect 2.5 million people worldwide. Northern Europe and the northern United States have the highest prevalence, with more than 30 cases per 100,000 people. MS affects two to three times as many women as men, and affects Caucasians more often. Most individuals experience their first signs or symptoms between 20 and 40 years of age. Children of parents with MS have a higher rate of incidence (30-50 percent).

An adult stem cell is an undifferentiated cell found among differentiated cells in a tissue or organ; it can renew itself and can differentiate to yield the major specialized cell types of the tissue or organ. The primary roles of adult stem cells in a living organism are to maintain and repair the tissue in which they are found.

Both adult and embryonic stem cells are taken from living human tissue. Adult stem cells are readily available in many different areas of the human body and do not harm the individual from whom they are taken. Embryonic stem cells are harvested from living embryos and the developing human life must be killed in order to extract the stem cells.

Research on adult stem cells has recently generated excitement and adult blood forming stem cells from bone marrow have been used in transplants for 30 years. Certain kinds of adult stem cells seem to have the ability to differentiate into a number of different cell types, given the right conditions.

If this differentiation of adult stem cells can be controlled in the laboratory, these cells may become the basis of therapies for many serious common diseases. Some examples of potential treatments include replacing the dopamine-producing cells in the brains of Parkinson's patients, developing insulin-producing cells for type I diabetes and repairing damaged heart muscle following a heart attack with cardiac muscle cells.

Research into adult stem cells has been fueled by their abilities to divide or self-renew indefinitely and generate all the cell types of the organ from which they originate - potentially regenerating the entire organ from a few cells. Unlike embryonic stem cells, the use of adult stem cells in research

and therapy is not controversial because the production of adult stem cells does not require the destruction of an embryo. Adult stem cells can be isolated from a tissue sample obtained from an adult. They have mainly been studied in humans and model organisms such as mice and rats.

Researchers from Israel explained that no specific treatment exists for patients with MS who fail to respond to conventional immunosuppressive and immunomodulating modalities.

The scientists outlined two ultimate goals of MS treatment: first, to eliminate self-reactive lymphocytes and to prevent new development of self-reactivity by induction of self-tolerance and second, to attempt regeneration and repair of existing damage.

In the case of MS, there is a need to stop the ongoing process of inflammation against the central nervous system (CNS) as well as to recover existing neurological deficits caused by the autoimmune process. The researchers believe that cell therapy stands out as the most rationale approach for neurological regeneration.

The study investigated the feasibility and efficacy of enriched autologous mesenchymal stromal cells (MSC) injected intrathecally (into the spinal canal) and intravenously (into a vein) to induce immunomodulation and neuroprotection and possibly facilitate the repair of the CNS in patients with MS and other neurodegenerative disorders.

From the results, the study authors concluded that bone marrow cells may provide a source of stem cells that may migrate into the inflamed CNS and differentiate into cells expressing neuronal and glial cell markers. The researchers are currently evaluating the safety of a similar therapeutic approach in a small group of patients with MS and other neurodegenerative diseases.

Adult stem cell research (ASCR) has led to successful treatments in over seventy diseases and conditions, and new uses are constantly being discovered. Adult stem cells are currently being used to treat and cure patients who suffer from diseases such as cancer, liver disease and Parkinson's disease, while embryonic stem cells have yet to successfully retreat any conditions.

For a list of diseases that have been treated with adult stem cells, please click [here](#). For the latest in adult stem cell research, please visit [SCI Research Advancement](#) or the [Stem Cell Research Institute](#).

For more information on multiple sclerosis, please visit [Natural Standard's Conditions](#) database.

To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

References:

- 1) Slavin S, Kurkalli BG, Karussis D. The potential use of adult stem cells for the treatment of multiple sclerosis and other neurodegenerative disorders. Clin Neurol Neurosurg. 2008 Mar 5. [View Abstract](#).
- 2) National Institutes of Health. Stem Cell Information. [View Fact Sheet](#). Accessed March 10, 2008.
- 3) Vitae Caring Foundation. Stem Cell Research Facts. www.stemcellresearchfacts.com. Accessed March 10, 2008.
- 4) Natural Standard Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.



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Welcome!

Natural Standard would like to welcome Quyen Hoang, PharmD from the Massachusetts College of Pharmacy.

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