



The Brain Therapeutics News

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The Brain Therapeutics Medical Clinic
26381 Crown Valley Parkway, Ste. 130, Mission Viejo, CA 92691

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ECP: An Alternative to Bypass Surgery

The External Counterpulsation machine (ECP) is exciting state-of-the-art technology that is safe, noninvasive and improves circulation to vital organs such as the heart, brain, eyes and kidneys. ECP is FDA approved (medicare reimbursable) for chest pain (angina), coronary artery disease and congestive heart failure. It is a noninvasive alternative to bypass surgery ECP is also proving itself

helpful in the treatment of ischemic conditions (lack of blood flow), including glaucoma, macular degeneration, stroke, brain injury, memory loss, Parkinson's Disease, vascular headaches, migraine, kidney failure, etc. Our patients report that it increases their energy, gives them more stamina, increases circulation to their feet, improves their sleep at night and helps them be more alert and

mentally focused during the day. Angina disappears often within a week or two and as the heart regains its strength, the rest of the body improves as well. For more information on this exciting, new noninvasive therapy as well as a free video (\$6 shipping) of our treatments, please call us at 1-800-300-1063.

An Ounce of Prevention: Our Cardiovascular Screening Program

Former President Bill Clinton had to undergo a quadruple bypass in September because the arteries to his heart were 90% blocked. A heart attack or stroke could have been just minutes away. How many of us are time bombs for a similar disaster?

When Mr. Clinton left office in 2000, his total cholesterol was 233mg/dl. Optimal levels are below 200 mg/dl. His LDL was 177 mg/dl. Optimal levels are 70 mg/dl. His blood pressure was 136/84. Optimal levels are below 120/70 and 130/80 for older adults. He was given blood pressure medication for his cholesterol and blood pressure but possibly because of side effects, he went off the medication without consulting his physician.

When newspapers told the story, they emphasized his cholesterol. However, cholesterol is only part of the story. The liver makes cholesterol to help with wound repair. If the lining of the blood vessel walls are damaged by infections, inflammation, pollutants, smoking, pesticides, alcohol, poor diet, etc., the liver will try to produce cholesterol to

help patch up the injuries.

If the causes of injury are not reduced, the patched up wounds will gradually interfere with the blood vessel's ability to expand according to the blood flow. With multiple wounds, the patch work will become a barrier to the flow of blood through the arteries. This combination of the lack of expansion and gradual blocking of the blood flow to the heart makes the heart have to pump harder against the resistance.

If the blood flow (with its oxygen and nutrients) is increasingly blocked to the heart, there may be symptoms of chest pain (angina). If the blood flow is blocked to the brain, there may be transient ischemic attacks (TIA) with subsequent memory loss. These symptoms may or may not precede a heart attack or stroke.

The causes of injury need to be addressed.

1. If you or a loved one have periodontal disease, lyme disease, candida, herpes or other known and unknown culprits, these conditions need to be addressed.

2. If you or a loved one is low in B complex and methylating

nutrients, a toxic substance called homocysteine may be accumulating in your system that is injuring heart cells as well as neurons in the brain. In the developing fetus, the heart grows out from the neural tube, the tissue of the nervous system. What is damaging to the heart will usually be damaging to the brain cells.

3. If you or a loved one smoke or are addicted to nonprescription drugs or alcohol, heart and brain cells are being destroyed and the downward path needs to be stopped.

4. If you or a loved one lives in a high traffic neighborhood or commutes to work in heavy traffic, heart and brain cells are being injured and intervention is needed.

5. If you or a loved one has problems sleeping and/or has sleep apnea (goes for extended periods without breathing), oxygen therapy and nutritional support is needed.

6. If you or a loved one is living with chronic stress, there is a greater need for antioxidant foods and supplements to support and protect your heart and brain against stress induced toxins.

7. If High Density Lipoproteins
(continued on page 2)



"We have state of the art technologies for diagnosing the health of your blood vessels and the best therapies available to reduce the risk of heart disease and stroke."

An Ounce of Prevention (continued)

(HDL) are low, they can be raised by exercise, niacin, and reducing triglycerides.

Because prevention and intervention are so important, The Brain Therapeutics Medical Clinic has begun a Screening Program for

preventing and reversing heart disease and stroke. We have state-of-the-art technologies in diagnosing the health of your blood vessels as well as the best therapies available in preventive medicine, such as the

External Counterpulsation Machine (ECP). Call us at 1-800-300-1063 for more information about our screening and intervention program to reduce the risk of heart disease and stroke.

Stem Cell Therapies Come of Age in California

by David Steenblock, M.S., D.O.

On November 2nd, Californians went to the polls and passed a massive proposition to fund stem cell research that will include embryonic, bone marrow, umbilical and adult stem cells. All the publicity about embryonic stem cells has eclipsed the benefits of umbilical cord stem cells. Stem cells isolated from umbilical cord blood are ethical, safe, and at the moment, the most promising for immediate clinical trials. It is my position that a major portion of the monies allocated for stem cell research, both public and private funding, should be devoted to clinical trials using umbilical cord stem cells. I am convinced that these cells are worthy of major funding because:

a) Umbilical cord stem cells are ethical. There is no loss of potential life from their use. The cord is taken only after the newborn babies are breathing well on their own. The cords have usually been thrown away but can now be harvested for stem cells for the baby's future as well as for other children and adults in need of life's renewal.

b) Umbilical cord stem cells from certified American Association of Blood Banks (AABB) cord blood are safe. There is little or no immune response in the recipient from pure

umbilical cord stem cells (CD34+ cells), even when given without immune suppressants⁽³⁾. This is not the case with adult stem cells that can cause severe graft versus host disease. Embryonic stem cells have a tendency to form tumors when injected into laboratory animals as well as humans⁽¹⁾, whereas umbilical cord blood (which includes stem cells) has a 16 year track record in the United States of being used as a treatment for leukemia and other cancers.⁽²⁾

c) Umbilical cord stem cells can be used to treat neurological injuries and disorders.⁽⁴⁾ A neuron usually has thousands of connections with other neurons. Starting at the beginning again with creating a new neuron and new connections may not be as efficient as a stem cell attaching to an injured neuron and nursing it back to health. Stem Cells can also stimulate the production of growth factors to make new neurons. Whether the method is creating a new neuron or attaching to an injured neuron, the outcome is brain repair.

I have been following the progress of a number of patients who have gone to other countries for umbilical cord stem cell treatments.⁽⁵⁾ Those with eye disorders and cerebral

palsy have shown significant clinical improvements. One patient's eyesight before treatment was 500/20 and six months after treatment it was 50/20. Children with cerebral palsy show improvements in some of the following over a six month period: thinking, understanding, vocabulary, vision, hearing, balance and motor coordination, as well as muscle tone, strength and endurance. Patients with multiple sclerosis and stroke also get positive results, especially when the stem cell transplant is combined with pre- and post- treatments and nutrients that improve the chances of stem cell survival.

d) Umbilical cord stem cells are versatile. They go where ever they are needed (attracted by signals from areas of inflammation). Patients treated for brain disorders also report renewed hair growth and hair color, relief from arthritic pain, reduced infections, and greater wellness and contentment for several months after umbilical cord stem cell therapy.

These four factors - ethics, safety, brain repair and overall versatility in both laboratory animals and human case studies seem to me to be very compelling arguments (continued on page 3)



Monochambers at
The Brain Therapeutics
Medical Clinic

Hyperbaric Oxygen Research from Around the World

In Yugoslavia, Dekleva investigated the effects of hyperbaric oxygen in 74 patients who had suffered an acute heart attack. HBOT and anticoagulants improved the heart's pumping capacity and remodeling process.

(American Heart Journal 2004, 148(4): E14.)

In Turkey, Siraneci reported that hyperbaric oxygen rescued dying tissue from a lack of blood flow to the infant's toes so that amputation of the baby's foot

was avoided. (Turk J Pediatr 2004, 46(3): 256-8.)

In the U.S., Bui at UCLA reported that HBOT was successful in treating side effects from radiation treatments. (Int J Radiat Oncol Biol Phys 2004, 60(3): 871-8.)

Stem Cell Therapies (continued)

for pure umbilical cord stem cells being used in Clinical Trials for neurological disorders as soon as possible.

In addition, these stem cells could be used for our soldiers and veterans. 67% of our soldier's injuries in Iraq last year were brain injuries. Pure umbilical cord stem cells could be administered to soldiers as soon as possible after their injury and possibly spare them a lifetime of profound disability. Umbilical cord stem cells have the potential of helping millions of people for a variety of illnesses and doing so much sooner and safer than other options at this time.

References:

(1) Embryonic stem cells are unstable and can lead to teratomas (solid tumors). Sathananthan H, et al. Critical evaluation of human blastocysts for assisted reproduction techniques and embryonic stem cell biotechnology. *Reprod Biomed Online* 2003, 7(2): 219-27.
 Lawrenz B, et al. Highly sensitive biosafety model for stem-cell-derived grafts. *Cytherapy* 2004, 6(3): 212-22.
 Humpherys D, et al. Epigenetic instability in ES cells and cloned mice. *Science* 2001, 293: 95-97.
 (2) Umbilical cord blood (which contains about 300,000 stem cells per cord/placenta unit) has a 16 year record of safe use in cancer patients (adults and children) in the United States. Meagher R, et al. Human umbilical cord blood cells: How useful are they for the clinician? *J Hemat Stem Cell Res* 2002, 1: 445-448.
 (3) Purified CD34+ stem cells do not have antigens and do not require immunosuppressants (that can detrimentally affect learning and memory). Cool, VA. Long-term neuropsychological risks in pediatric bone marrow transplant: what do we know? *Bone Marrow Transplant* 1996, 18 Suppl 3: S45-9.

Handgretinger PR, et al. Megadose transplantation of purified peripheral blood CD34(+) progenitor cells from HLA-mismatched parental donors in children. *Bone Marrow Transplant* 2001, 27(8): 77-83.

Benesch M, et al. Transplantation of highly purified CD34+ progenitor cells from alternative donors in children with refractory severe aplastic anaemia. *Br J Haematol* 2004, 125(1): 58-63.

Over 100 neurological patients receiving purified stem cells from umbilical cord blood (without immunosuppressants) from offshore clinics reported no graft versus host symptoms when interviewed about their experience.

(4) Purified stem cells derived from umbilical cord blood can be used for central nervous system repair.

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Neurological Repair Newman MB, et al. Human umbilical cord blood (HUCB) cells for central nervous system repair. *Neurotox Res* 2003, 5(5): 355-68.

Spinal Cord Injury Saporta S, et al. Human umbilical cord blood stem cells infusion in spinal cord injury: Engraftment and beneficial influence on behavior. *beneficial influence on*

behavior. *J Hematother Stem Cell Res* 2003, 12(3): 271-8.

Stroke Taguchi A, et al. Administration of CD34+ cells after stroke enhances neurogenesis and angiogenesis in a mouse model. *J Clin Invest* 2004, 114(3): 330-8.

(5) Purified stem cells derived from umbilical cord blood have been used successfully in children with cerebral palsy, in off shore clinics.

No graft versus host symptoms (immunosuppressants were not used). Slight to significant improvements were reported for all eight children (aged 3-12 years of age).

Report submitted for publication by David A. Steenblock, M.S., D.O.

For further information on umbilical cord derived stem cells:

- www.stemcelltherapies.org
- www.cordbloodforum.org
- www.cordblood.org

COMING SOON!

Dr. Steenblock and Dr. Payne are writing two books on stem cells: one on Stem Cell Therapies outside the United States and a second book on how to make the most of the stem cells we have.

If you would like to receive an email when these books become available, please email us at braintherapeutics@lycos.com



Proposition 71

Umbilical Cord Stem Cells are ethical, safe and effective in both animal studies and human case studies...

Portable Hyperbaric Chambers

Dr. Gamow of the University of Colorado designed a portable hyperbaric oxygen bag for treating mountain sickness. Since then, the bag has been redesigned as a portable chamber with applications for stress reduction and fatigue. Portable hyperbaric chambers can be used in homes, clinics, and ambulances, where regular chambers are not feasible. Portable chambers

show promise for supporting the immune system against infections, assisting with wound healing in sports injuries and diabetic conditions. Portable chambers may also show some benefit with behavioral disorders, since oxygen can have a calming effect for tantrums. For those who have undergone a hyperbaric program for brain injuries, the portable chamber may

help maintain the improvements. More research is needed using portable chambers, especially in regard to stem cells. Part of the success of low pressure therapies (1.2 ATA) may be due to stem cell differentiation. For more information, call us at 1-800-300-1063.



Portable hyperbaric chambers can be used in homes, clinics and ambulances.

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26381 Crown Valley Parkway, Suite 130
Mission Viejo, CA
92691

Dedicated to
Providing Tomorrow's
Therapies Today!

PHONE:
(800) 300-1063

FAX:
(949) 367-9779

E-MAIL:
Braintherapeutics
@lycos.com

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Emergency Planning

Hyperbaric Oxygen has proven itself helpful in reducing side effects from radiation toxicity. Cord stem cells may also be effective. Umbilical cord blood (which contains stem cells) has been used for over 16 years to help reconstitute the bone marrow and blood of cancer patients receiving chemotherapy and/or radiation. In

2001 Ende and associates investigated the use of cord stem cells for mice who had been exposed to lethal doses of radiation. More mice survived with the cord blood stem cells. The researchers suggested that cord blood laboratories save large amounts of cord stem cells for nuclear plant emergencies. We would like to

suggest that California as well as other states start saving umbilical cord stem cells for emergency use.

Ende N et al. Pooled umbilical cord blood as a possible universal donor for marrow reconstitution and use in nuclear accidents. Life Sci 2001, 69(13): 1531-9.

Hyperbaric oxygen and umbilical cord stem cells can be of assistance in treating radiation toxicity...

Dr. Steenbock's "The Big Mover"

"The Big Mover" is a blend of seaweeds plus other compounds rich in fucoidans and other "sulfated glycans." Fucoidans Over 500 scientific papers have been published on Fucoidans, that support their use for modulating the immune system, glucose metabolism and mobilizing stem cells. Studies done in the USA found that fucoidans increase and mobilize stem cells for repair and renewal. Fucoidans also increase the number of circulating mature white blood cells (lymphocytes), which increase the killing of harmful viruses and bacteria. Swedish scientists discovered that fucoidan inhibits the kind of inflammatory processes that

may lead to allergies and tissue damage. Canadian researchers found that fucoidans block immune processes that may play a role in chronic degenerative diseases such as atherosclerosis, heart attack and Alzheimer's disease. Researchers in Argentina and Japan found that fucoidan inhibited viruses such as herpes simplex type 1 from attaching to, penetrating and replicating in host cells. For further information, call us at 1-800-300-1063.

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Hypoglycemic activity of several seaweed extracts. Journal of Ethnopharmacology, Nov 1989, 27(1-2): 35-43.

About Our Clinic

Dr. Steenblock and his staff at The Brain Therapeutics Medical Clinic are dedicated to providing safe, non-invasive treatments for stroke, traumatic brain injury, autism, cerebral palsy, Parkinson's Disease, Multiple Sclerosis, Memory Loss, and other neurological disorders. For our free video (\$6 shipping/handling) on our treatments, call us at 1-800-300-1063.



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Mission Viejo, Ca 92691

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