Adequate Blood Flow

The most important thing the brain needs is an excellent supply of oxygen, and this only comes from adequate blood flow, since your blood cells carry oxygen to your brain and the rest of your organs. Your brain’s energy, as well as the energy in the rest of your body, is made by energy powerhouses found in each cell, called the mitochondria. Oxygen enables mitochondria in your brain cells to pump out an energy chemical known as adenosine triphosphate (ATP). Without adequate levels of ATP, your brain has an energy drain and its function decreases.

As you age, the mitochondria become less efficient at pumping out ATP, and a primary reason that this happens is because of decreased blood flow to the brain. Although the brain represents only about 2 percent of your total body mass, it accounts for more than 25 percent of the blood flow. Without adequate blood flow, your brain is deprived of oxygen and, thus, is unable to manufacture enough ATP to operate at peak efficiency. Below a critical level of ATP production, brain cells can begin to die. A stroke is an extreme example of this: Blood flow and oxygen are restricted to a portion of the brain, and brain cells in that region die off.

The best way to increase blood flow to the brain (and every other organ for that matter) is to generate more “good” eicosanoids (which are powerful vasodilators that widen the opening of arteries, veins and capillaries) and fewer “bad” eicosanoids (which are powerful vasoconstrictors that have the opposite effect). The long-chain Omega-3 fatty acid EPA contained in fish oil will increase the production of those “good” eicosanoids by decreasing the levels of arachidonic acid (the building block of “bad” eicosanoids). The higher levels of EPA in the diet, the more your cells will be induced to make more “good” eicosanoids.

Stable Blood Sugar

Even if you have adequate oxygen flow to the brain, you still need a stable supply of glucose, since the brain also needs this fuel to make ATP. The only way to maintain a steady supply of glucose to the brain is by controlling insulin levels. Having a spike in your insulin levels (which comes from eating too many carbohydrates) can drive glucose levels down so low that your brain function is compromised. That’s why you feel so sleepy two hours after eating a huge pasta meal. Your thinking becomes fuzzy, you have difficulty concentrating and all you want to do is take a nap.

At this point, your brain, deprived of adequate levels of blood sugar to make ATP, is desperately seeking any way possible to get more blood sugar. As a result, you are driven by an almost manic urge to eat carbohydrates. That’s your brain’s way of telling you that you have to get some glucose into the bloodstream quickly or else. The more carbohydrate rich that food is, the faster the carbohydrates can reach the bloodstream and make it to your brain. The candy bars, soft drinks, or other types of junk food can drive glucose levels dizzyingly drop in blood sugar. You also get an added benefit: Steady insulin will enable your body to maintain a steady level of the hormone glucagon, which releases stored blood sugar from the liver, allowing a constant supply of blood sugar for the brain. Carbohydrates stimulate the release of insulin, and protein stimulates the release of glucagon, which is why I always recommend eating a balance of these two nutrients at every meal and snack.

Docosahexaenoic acid (DHA)

The final thing the brain loves is an adequate level of docosahexaenoic acid (DHA). This is one of the two long-chain

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There are other pluses for the non-qualified plan. You do not have to make any contributions for employees. You have no restrictions on the amount you can deposit into this plan. The money within this plan is sheltered from creditors in most states. You do not have to wait until you are age fifty-nine and one-half (59½) to get to your money without a tax penalty. Plenty of advantages for the non-qualified plan over the qualified one.

Do you have a current qualified retirement plan? IRA? Roth? SEP? Pension? Profit Sharing? 401k? Maybe it is time to take a good long look at these plans and not just the immediate tax savings you get on the deposits. What is your plan going to cost you in fees? How much will you give away to employees? What will your tax burden be at retirement? Do you really want to wait until age sixty to retire? Do you really understand how your current plan works? What will your retirement plan or plans look like in the future? All these are important questions for you to answer while setting up your retirement plan!

Stanley B. Greenfield has been engaged in the fields of Financial Management and Insurance since 1962. He has been a guest speaker for Educare Financial on numerous occasions. He is a Registered Financial Consultant, and was awarded the designation of RHU, Registered Professional Disability and Health Insurance Underwriter, in 1979, as one of its Charter Members.

Mr. Greenfield also serves as a member of the Board of Directors of the Florida Chiropractic Foundation for Education and Research. You may reach him at stan@stanleygreenfield.com, call 800-585-1555 or visit his website, www.stanleygreenfield.com. 

Establishing a Care Plan for Your Patients—by Kirk Lee, D.C.
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One of the most frequently missed patient presentations is how a patient raises and lowers himself from a seated position. How often has a patient said to you he is having difficulty raising and lowering himself from the toilet, difficulty maneuvering stairs and getting out of bed? Quite often, this is the result of weakened musculature and altered spinal biomechanics. Are the assistive devices (walkers, canes, crutches) being used properly, or are they a contributing factor?

As the Doctor of Chiropractic, you routinely develop a plan for how you will provide the chiropractic adjustment. You do this from a correlation of your examination findings, which may include X-ray and other additional testing. It is important to have and implement a plan that may compliment the chiropractic adjustment with thorough rehabilitative techniques. Please remember, this is much more than merely handing your patients a bunch of exercises and expecting them to do them on their own.

A 1980 graduate of Palmer College of Chiropractic, Dr. Kirk Lee is a member of the Palmer College of Chiropractic Post Graduate Faculty and Parker College of Chiropractic Post Graduate Faculty. He has lectured nationwide on sports injuries and the adolescent athlete, and currently practices in Albion, Michigan. He is very active with the Michigan Chiropractic Society, serving on the legal and government affairs committees.

What the Brain Loves: "Adequate Blood Flow"—by Barry Sears, Ph. D.
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Omega-3 fatty acids found in fish oil (EPA is the other). More than 60 percent of the weight of the brain is composed of fat, and most of the long-chain Omega-3 fatty acids in the body are concentrated in the brain.

Virtually all of this long-chain Omega-3 fat, however, is in the form of DHA, since the brain contains very little EPA. One reason why the brain demands such high levels of DHA is that the critical cell membranes in the brain are very rich in this long-chain Omega-3 fatty acid. These critical membranes include the synapse (to transfer information), the retina (to receive visual inputs), and the mitochondria (to make ATP). Thus, the key brain cells can't perform at peak levels without adequate DHA in their membranes.

Without adequate amounts of DHA, your brain can't function adequately and certainly can't form new neural connections, let alone maintain old ones. Trying to maintain your brain function without adequate DHA is like trying to build the sturdiest brick house in town without bricks. You might have the best architect, the best location, and the best contractor but, if you don't have enough bricks, the dream house will never be built properly. DHA can be considered the building brick for the brain. You better have enough if you want to maintain brain function, let alone improve it.

Dr. Barry Sears, leading authority on the dietary control of hormonal response, author of the New York Times #1 best seller, The Zone, is a former research scientist at the Boston University School of Medicine and the Massachusetts Institute of Technology. For more information about The Zone program call 1-800-404-8171 or visit www.drsearszonefast.com.
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