

Could Eating More Fish Benefit a Baby's Brain?

By Richard Hansen

We have all heard fish referred to as "brain-food" at one time or another and now, a new set of studies provides added support for that assertion.

The first of these studies appeared in the March 2008 edition of the *Journal of Pediatrics*. It examined whether or not Omega-3 fatty acid consumption among 109 Inuit expectant mothers had an impact on infant "visual, cognitive and motor development."

The researchers conducting the study took blood samples from the umbilical cords of the infants and measured the level of DHA present, as well as other fatty acids and environmental contaminants. They looked at the level of DHA in the umbilical cord blood because it is also an accurate indicator of the DHA in the mother's blood.

The researchers focused on the Omega-3 fatty acid DHA (docosahexaenoic acid) because it plays a critical role in "early central nervous system development." It is believed to be especially important during the third trimester of pregnancy when the fetus undergoes what has been termed a "brain growth spurt."

The children were then administered tests that measured their cognitive and motor development at six and eleven months of age.

It was found that children who had higher DHA levels at birth performed better on these tests. This led the researchers to conclude that "the association of higher cord DHA concentration with more optimal visual, cognitive and motor development is consistent with the need for substantial increases in this critically important fatty acid during the third trimester."

The most common dietary source of DHA is oily fish such as tuna and salmon. In the past, the Inuit diet has relied heavily on fatty fish high in DHA. As they have begun to adopt a more "western" diet, however, their



consumption of fish has declined. Another study that reported similar

findings related to DHA was published in the *American Journal of Epidemiology*.

Researchers from Harvard Medical School found that out of 341 preschoolers, those whose mothers ate low-mercury fish more than twice a week during pregnancy scored higher on tests that measured visual and motor development.

Blood samples were taken from the mothers during the second trimester and they were surveyed about their diet. Then, their children received a series of standard tests to assess their

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MEND and BrainReady.com Kick Off Exciting New Internet Collaboration

When you visit the MEND website home page, you will find a new link that takes you to www.BrainReady.com.

BrainReady.com is a website that offers information and products geared toward helping people improve and sustain brain health and function. MEND was excited to discover a site like BrainReady.com, which has such a similar emphasis and mission.

After speaking with the BrainReady team, Dr. Hansen contributed an article to the BrainReady blog, titled "B-vitamins, Bioavailability and Your Brain." It's a must read for anyone interested in learning what vitamins scientific research has shown to play an essential role in brain function and chemistry.

The BrainReady team prefaced the piece with this endorsement of Dr. Hansen and MEND:

"We'd like to introduce Dr. Carl Hansen Jr., MD, and his wonderful example: a doctor with a deep passion for and knowledge of brain health, how vitamins and nutrients play a truly vital role in keeping one's brain healthy and even reversing decline, and frustration about the fact that most supplement products on the market used

either cheap versions of key nutrients in forms that our bodies can't make use of, or uninformed combinations and dosages of vitamins that negated their possible benefits, or worse -- dangerous amounts of the wrong kinds of vitamins, supplements that don't undergo rigorous testing for metals and other pollutants, and more.

"We came across Dr. Hansen and MEND Solutions vitamins by accident, and after learning the backstory (and trying the supplements ourselves), we're honored to help spread the word about MEND despite our usually neutral stance on endorsing specific products -- as examples like this in the supplement industry are rare and should be rewarded."

MEND encourages everyone to visit BrainReady.com to read the full article and check out everything else they have to offer. We think you will find it both engaging and informative.

Action is Everything
www.mend.net

April 2008

Dr. Carl's Corner



To better serve your quest for good health, a number of interactive electronic resources are being offered by MEND.

An enhanced e-book version of *Building Blocks for a Healthy Lifestyle* is now available.

For a limited time, MEND is offering you a free one year subscription to this product that usually sells for \$49.95.

Please send us an email to info@mend.net with the words **Building Blocks** in the **SUBJECT** line of the email to receive your subscription.

You will receive an email with download instructions for this product and the Windows-based viewer.

The email will also include a **USERNAME** and **PASSWORD** that are required for its activation and registration. Feel free to install it on up to two computers.

Try it out and let your friends know about this free subscription opportunity.

The viewer will provide you with access to other electronic tools that we will be offering to you in the future.

"Conversations with Dr. Carl," a free seminar, is scheduled in collaboration with Bob Modaff at **Three Smooth Stones** (3336 East 25th Street) in Minneapolis, MN 55406 on Saturday, May 17, 2008 from 1 PM to 2 PM.

Please contact us by email (info@mend.net) with **Conversations** in the **SUBJECT** line and your contact info in the **BODY** or call **952-920-8801** to make reservations. Seating is limited.

Fish For Babies - Cont.

development at three years of age.

In addition to looking at fish consumption and the associated concentration of fatty acid in the blood, the scientists also measured mercury levels.

Certain fish that are high in Omega-3 fatty acids also contain significant amounts of mercury.

This problem has prompted an advisory that pregnant women avoid consuming certain fish species: shark, swordfish, mackerel and tilefish.

U.S. health officials also encourage pregnant women to avoid eating more than 12 ounces of fish a week.

The study revealed that the children of mothers with higher mercury levels scored more poorly on the tests.

It was also shown that mothers who ate more than two servings of fish a week were more likely to have higher blood concentrations of mercury.

These results have spurred the scientists to encourage pregnant mothers to continue eating low-mercury fish, while at the same time making a conscious effort to avoid those shown to contain high amounts of mercury.

Unfortunately, many fish low in mercury, like cod and haddock, also contain less of the DHA believed to aid fetal and child brain development.

One alternative option is taking a DHA supplement that is free of heavy metals and other contaminants.

Pregnant women considering this option should make sure to consult a health care professional first to ensure the supplement is appropriate for their

Strange But True: Alligator Antibiotics

It now appears that alligators may be good for more than just dress shoes, briefcases and wallets.

Chemists in Louisiana have discovered that alligator blood contains antimicrobial properties that provide valuable protection against deadly infections.

The researchers isolated protein fragments, known as peptides, found in the white blood cells of alligators, and exposed the serum to 23 strains of bacteria. The alligator serum killed all 23 types of bacteria, including the antibiotic resistant MRSA (methicillin-resistant *Staphylococcus aureus*). It was also able to destroy a significant portion of the HIV virus.

Co-author of the study, Lancia Darville, who conducted the research with Mark Merchant, a biochemist, presented their findings at the 235th national meeting of the American Chemical Society in New Orleans.

Merchant first began to investigate bacterial resistance in alligators when he realized that while alligators suffer frequent cuts and scratches as a result of aggressive confrontations over territory and mates, they rarely develop debilitating infections.

This perceptive observation is especially noteworthy because this



animal primarily inhabits swampy, bacteria-rich environments.

The alligator blood test results were compared with those from a similar human serum that was only successful in destroying eight of the 23 bacteria strains.

The researchers believe these findings may pave the way for the development of drugs made from alligator blood proteins that could help protect burn victims and those with compromised immune systems against harmful infections.

They cautioned, however, that it may be a decade before such products reach the market. A major obstacle to any potential drug derived from alligator proteins is the fact that, up to this point, they have proven to be toxic to human cells at high levels.

Laurie's Corner

I believe the very best BRAIN food is salmon. Alaskan Copper River Salmon (wild caught) is available FRESH only from May 15th to June 15th. So, be sure to take advantage of this rare treat this spring!

Believe it or not, we have two young friends, Quinn, 13, and Carly, 6, who will tell you, in a flash, that Copper River Salmon is the very best salmon and the ONLY way to go! They sure have good taste – not to mention brains!

Now that *Minnesota Winter Hibernation* is over (hopefully), this recipe works well for a lovely spring dinner.

You could also try the Mediterranean Rounds recipe (see below) for appetizers and serve raspberry and/or lemon sorbet with fresh (or frozen) blueberries for a refreshing dessert!

Mango Salsa Salmon

Salmon fillets – of equal size & shape, approx. 6-8 oz. each. The number of fillets depends on how many people you will be serving

Salad dressing - cilantro and lime (I've used the Drew's or Annie's brands)

Salad greens, washed, patted or "spun" dry

1-2 Cucumbers, washed, peeled, quartered lengthwise and sliced (for cubes)

1-2 Avocados, washed, cut in half, peeled and cubed

1 pint Cherry or Grape Tomatoes, washed and cut in half (from stem to stern)

For Mango Salsa: (enough for approximately 6 salmon fillets)

2 large ripe mangoes

1/2 small red onion

1/2 bunch of cilantro

2 fresh limes

1. Clean salmon fillets and pat dry.
2. De-bone salmon if necessary.
3. Place salmon skin side down in a glass pan and pour salad dressing on the fillets.



4. Cover pan and refrigerate for as little as 5 minutes or up to 2 hours.

5. Prepare salsa: peel and cube mangoes and put in glass bowl. Mince red onion and add to mangoes. Chop cilantro and add to bowl. Squeeze lime juice over all. Stir and refrigerate (for as little as 5 minutes or up to 2 hours).

6. Place salad ingredients on dinner plates – in the order listed.

7. Bake marinated salmon fillets uncovered at 350 degrees for 10 – 15 minutes (or longer depending on the # of fillets you are cooking). You can bake them in the pan you marinated them in ONLY if it is oven-proof and has NOT become very chilled; otherwise, it may crack when placed in the hot oven.

8. Or, if it is NOT SNOWING (I remember it snowed on a May 17th sometime in the mid-70's!) you can grill the salmon over medium hot coals for about 15 minutes – just until the interior of the fish is no longer bright pink (1 " thick fillets take about 13 – 15 minutes). DO NOT TURN FISH OVER. If you put the lid down on the BBQ, it should cook even faster. When you take it off the grill, the skin may stick – which is just fine and the coals will burn it off.

9. Place cooked salmon atop the salad plates.

10. Top with mango salsa and serve.

Fun Finds

This year, Mother's Day is Sunday, May 11th. Here are a few suggestions to honor her:

Premium Brain Support™ - there is no better gift than the gift of health (120 vegetarian capsules \$49.95).

"What's age got to do with it?" By Joan Kennedy. A fun and inspirational read for women of all ages (\$14.95).

Gift Baskets – custom designed with your favorite nutritional supplements.

Mediterranean Rounds

Thin Baguette

Mushroom Brie

Kalamata Olives, pitted

Cherry or Grape Tomatoes

1. Cut baguette in thin slices.
2. Spread slices with mushroom Brie.
3. Cut olives lengthwise (stem to stern, first in half and then cut the halves in two).
4. Cut washed tomatoes (stem to stern, first in half and then cut the halves in two).
5. Place olive and tomato slices on the Brie by alternating slices into a flower pattern (or use your imagination!)
6. Place on tray and serve.

Stinky Hands Tip: Even though this has appeared in an earlier newsletter, it is a good reminder! After chopping onions, garlic or handling fish: wet your hands thoroughly and place a drop or two of GSE (Grapefruit Seed Extract Liquid Concentrate) on them and rub all affected parts of your hands for a few seconds and then rinse off.

This 'N That



I have always heard that you are supposed to throw away your toothbrush after you have been sick. That got me to thinking about toothpaste. I know that in many families, family members share the same tube of toothpaste.

When someone is ill in the family, families tend to be more conscientious about sharing food, beverages, etc., but I wonder how many think about the toothpaste they are sharing.

One way to avoid this would be for everyone to have his/her own tube year round.

That would have been a lot of tubes of toothpaste for my family when I was growing up – a whopping 10!

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