

**“ I am a newborn !
Do you know the
wonderful
opportunity you
have to impact my
brain
development?”**



**“Oh really...? Most of my brain
development happens after birth?”**

• 90% of the brain
develops in the
pre-school years.

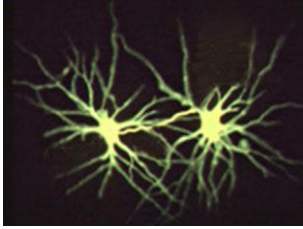


• 100 billion brain
cells at birth

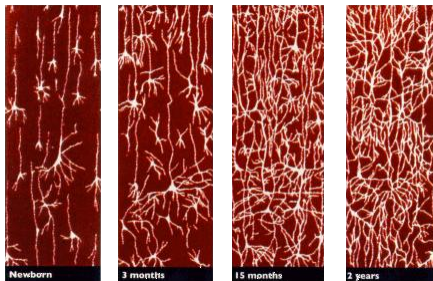
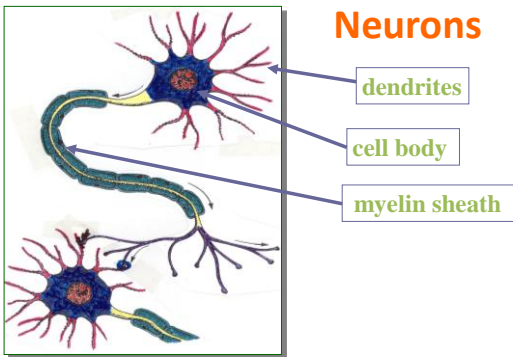
**“It really is simple..for a
healthy brain I need...”**

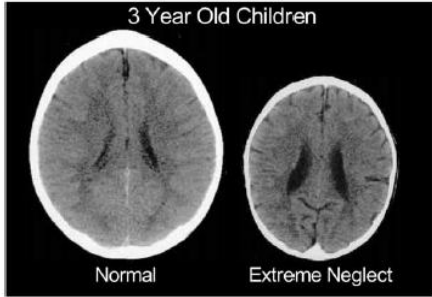


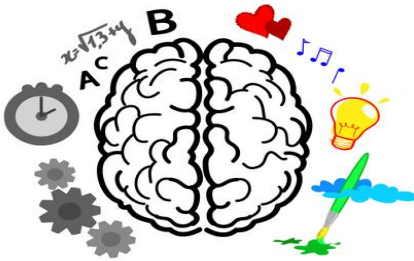
- Nutrition
- Sleep
- Safety and Security
- Predictability
- Loving Interaction and Touch
- Nature
- Lots of Time to Play!



Experiences create and strengthen brain connections!





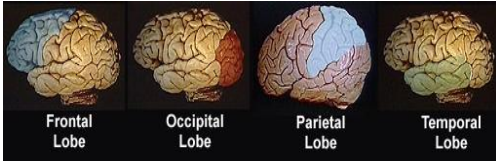


Our Amazing Brain...is constantly making new connections!



Our Food Makes a Difference...Impacting Healthy Connections!

This is your brain on food...



Nourishing food helps your brain manufacture neurotransmitters that transmit signals to help you feel good, ignore distractions, and remember phone numbers!

So What IS A Healthy Brain Diet?



A HEALTHY DIET

- Whole foods
- Unprocessed
- Organic (when possible)
- Good fats
- Grass fed/pastured meat and eggs





Hmm, These just don't cut it for Brain Food...

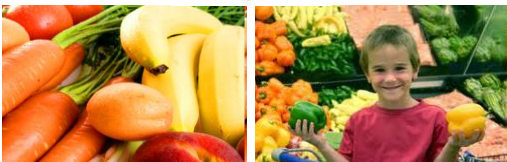
- 1. Fast foods
- 2. Processed foods
- 3. High sugar
- 4. Unhealthy fat (hydrogenated)



And these bright colored candies are scary for our brains!

How do they get their color?!

Where are the VITAMINS, NUTRIENTS & MINERALS here?



Why do we need dyes???

Eating A Rainbow



- Physical health
- Mental health
- Behavior
- Moods
- Function
- Activity Levels
- Sleep



Nutrition Directly Affects the Brain

Breakfast

- **Missing breakfast ...**
can result in hyperactive behavior
- **A healthy breakfast ...**
improves a child's academic performance, physiological well-being, and behavior



Research has shown, when children who didn't eat breakfast started eating it, they had a far more stable mood for the rest of the day.

Hunger Affects Behavior

- Hunger disrupts hormones because the brain doesn't have what it needs
- Low blood sugar also deprives the brain of glucose, which can lead to out of control behavior
- The strong activation of these hormones means the child may then suffer from:

anxiety, agitation, aggression, feelings of panic, and confusion may become temper tantrums



Well Balanced Diet



A child can play and learn very well for long periods of time after eating a balanced meal

Boosts levels of serotonin in the brain

On the Other Hand...



Chocolate and candy eaten on an empty stomach, instead of a healthy meal (or without the presence of adequate amounts of protein), send a child's sugar levels sky-high

- A drop in blood sugar 30 minutes later, which in turn leads to aggression, anxiety, and hyperactive behavior



Protein



General protein guidelines:

- ✓ Ages 1 to 3 – 0.81 grams
(child's weight in pounds x 0.81 = daily grams of protein)
- ✓ Ages 4 to 6 – 0.68 grams
- ✓ Ages 7 to 10 – 0.55 grams





Proteins



Meat – Beef, Chicken, Pork, Turkey

Fish – Salmon, Tuna

Eggs/Dairy – Milk, Cottage Cheese, Yogurt, Cheese

Beans – Black, Pinto, Lentil

Nuts/Seeds – Peanut Butter, Almonds, Pecans, Flax

Animal Protein Sources

GRASS-FED/PASTURED

- Higher Omega 3
- Rich in DHA
- Rich in Vit. A, D, E, K
- Higher in CLA
- Higher in tryptophan (sleep and mood)
- Look for local sources: least expensive and most nutritious—Ga. Organics

COMMERCIAL

- Low Vit A, D and others
- Higher in fats and cholesterol—particularly bad fats
- Higher in arachidonic acid(inflammatory)
- Low in anti-inflammatory fats

Source: Julia Turner – www.juliaturnernutrition.com



PLANT BASED PROTEIN

- Beans and lentils
- Nuts/seeds
- Quinoa: contains 50% more protein than other grains
- Combine beans, nuts, grains together for day for complete protein
- Protein powder: rice, pea, hemp
- Avoid soy



So...What's the scoop on "EFAs"?

1. Essential Fatty Acids (EFAs), are structural nutrients that incorporate into the nervous system, including the brain and every cell in the body.
2. EFAs must enter our body through the food we eat or supplements we take.
3. Fish oil/ cod liver oil is rich in a special type of fatty acid called Omega 3.

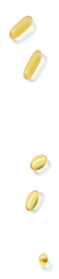


2 main types of Omega 3 fats found in fish:

Eicosapentaenoic acid (EPA)
Docohexasanoic acid (DHA)

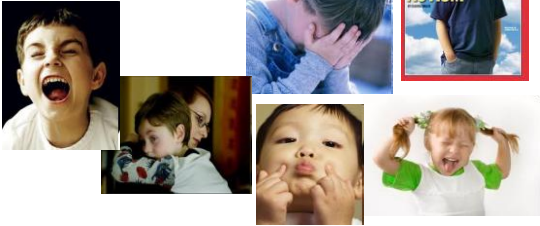
EPA is taken from various parts of the fish, while DHA is from the liver, hence is in "Cod liver oil" which also cont Vitamins A and D.

* Want to be sure your EFAs are purified, molecularly di & 3rd party tested to ensure safety (no toxins)!



EFA's can help . . .

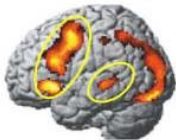
Children with Autism, Apraxia, AD(H)D, Aspergers, Sensory Integration Disorder, and the list goes on...



A Autism group



B Control group



Sentence Comprehension

When EFAs are lacking...



Symptoms of Fatty Acid Deficiency

1. dry skin, dry patches, skin rashes
2. coarse, frizzy or fly-away hair
3. excess wax build up in ears
4. excessive thirst, yet refuses water
5. permanent "goose-flesh" behind arms
6. chronic inflammatory conditions
7. aggressive behavior, tantrums (EPA); mood swings
8. inattention (DHA); poor eye contact
9. sensory dysregulation, tactile hypersensitivity



Standard American Diet



CARBOHYDRATES

- **ADD** complex carbohydrates: whole grains, vegetables, fruit, starchy vegetables
- **REDUCE** refined carbohydrates: flour products (bread, crackers, chips), cookies, pasta
- Reduce refined sugar intake
- Healthy sweeteners: agave nectar, maple syrup, raw honey
- 45-65% of total calories—for all



Veggies help your brain think!



Avocado – smooth, creamy packages of nutrition for the brain! Full fiber, vitamins and potassium, its mono-saturated fat contributes to healthy blood flow and lower blood pressure.

Greens – spinach, kale, collards help reduce natural cognitive aging.

Sweet Potatoes – and other deeply colored veggies are full of antioxidants and Vitamin C.

Cruciferous Veggies – broccoli provides protein.



Brains Adore Vitamins!

B vitamins – help with energy, nerve connections and nerve health

Thiamin – metabolizes glucose (brain's primary energy source) which are found in: nuts, seeds, whole grain products, legumes, pork, etc.

Vit B-12-maintains the nerve cell's outer coating, prevents nerve damage/impaired brain function

Folic acid or folate – crucial for proper brain function

Vit B6 essential to producing most of the brain's neurotransmitters.

Vit C – essential antioxidant (citrus fruit, parsley, bell pepper, strawberries, papaya, broccoli, cauliflower, kale, mustard greens and brussel sprouts). Vit C helps transport fat for brain energy.

Vit E – antioxidant that readily enters the brain. A blood thinner. May help prevent Alzheimer's disease, especially when taken with Vit C. Vit E from wheat germ, vegetable oils, nuts, avocados, green leafy vegetables.





Minerals, oh Brain Minerals!

Minerals, even trace elements are needed by the brain
Best source...diet!

Boron – pears, apples, grapes, raisins, peaches, nuts, leafy veggies, beans

Iron – meat, poultry, fish, whole grains, green leafy vegetables, dried beans/peas, dried fruit

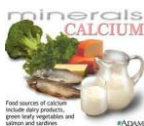
Magnesium – green leafy vegetables, halibut, potato skins, whole grains, nuts, seeds, bananas and...chocolate!

Manganese – whole grains and nuts

Copper – organ meats, seafood, nuts, seeds, whole grain bread/cereals, and...dark chocolate

Zinc – red meats, liver, eggs, dairy, vegetables

Selenium – seafood, liver, eggs, Brazil nuts



Minerals, oh Brain Minerals! FOODS RICH IN MAGNESIUM:

- Avocado (Florida, 1/2 med) 103 mg
- Wheat germ (1 oz) 90mg
- Almonds (dry, 1oz) 86mg
- Pumpkin seeds (1/2 oz) 75mg
- Nuts (1 oz) 66mg
- Spinach (1/2 cup cooked) 65mg
- Bran flakes (1/2 cup) 60mg
- Baked potato (w skin) 55mg

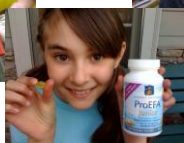


Avocado, Yum!





Drink (more)
WATER!
The brain loves
water 😊



We only get ONE brain...
Why Not Make it as Healthy as it
Can Be?

Early Exposure to HEALTHY Foods!





Teaching Children Early about Healthy Choices... Makes a Difference for a lifetime of healthy eating!



Working with young children... Exploring fruits and vegetables!

Getting Children Involved...

Students Learning What's Good For Their Brain!



Healthy Breakfast Ideas

- Eggs (have children brainstorm different ways to cook)
- Homemade muffins with pureed veggies and/or fruit
- Pancakes with pureed veggies or chicken Blend 1 cup cooked chicken breast with 2 eggs. Pour in pan like pancake batter and cook.
- Oatmeal or other hot cereal



More Healthy Breakfast Ideas



- Smoothie: frozen banana, handful berries, handful baby spinach, scoop protein powder, milk or yogurt, agave nectar, avocado (can add in strawberry EFA)...
- Turkey, tuna, fish, meatballs and spaghetti! – leftovers from dinner = "Dinner for Breakfast" ...higher protein in the am (provides longer lasting energy in the morning)





Healthy Lunch Ideas

- Chicken, beef or other protein
- Veggie sticks with dipping sauce (hummus, nut butter, guacamole, salsa)
- Lunch meat (natural) roll ups with shredded veggies
- Lettuce wraps – long Romaine leaves, can make into boats (put in your favorite healthy filling)!
- Sandwich - sunbutter (nut-free)
- Chili (veggie or meat)
- Soups – great for children to help prepare



Healthy Dinner Ideas

Protein:

Meatballs, meat patties, meat loaf (turkey, chicken, beef) roasted or grilled meat, chicken pancakes

Vegetables:

Cooked, pureed, raw, crunchy

Starch:

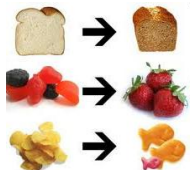
TinkYada (rice), pasta potatoes, sweet potatoes



Healthy Snack Ideas



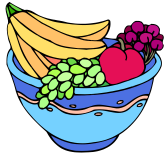
- Fruit kebabs with yogurt dipping sauce
- Nut butters (almond, cashew, sunflower seed) on apple, carrot, or celery
- Smoothie or homemade popsicles with pureed veggies, vegetable juice, fresh fruit, yogurt
- Frozen fruit slices



More Healthy Snack Ideas



- Hummus with vegetables or pita
- Healthy chips—sweet potato, root vegetables (Terra)
- Lundberg Family Farms Rice Chips, Rice cakes
- Fruit/ Veggie Face Plate (child designs)!



TYPES OF FATS

Omega 3	Omega 6	Omega 9	Saturated Fat
Fish oil or Cod liver oil	Borage oil (GLA)	Olive oil	Coconut oil
Flax seed oil	Evening primrose oil (GLA)	Avocado	Palm/Red palm oil
DHA and EPA supp.	Black currant oil (GLA)	Nuts/Seeds	Animal fats—ghee, dairy
	Hemp seeds/oil		
	Nuts/seeds and their oil		
	Grapeseed oil		

Source: Julia Turner - www.juliaturnernutrition.com

Some Other Resources...

- www.todaytearainbow.com
- www.kellydorfman.com
- www.chickinfeed.com
- www.nordicnaturals.com
- www.zonya.com
- www.foodforthebrain.org
- www.bbbgeorgia.org
- www.bucketfillers101.com





Deborah McNelis

deb@braininsightsonline.com

www.braininsightsonline.com

• <http://braininsights.blogspot.com/>



414-975-7045



Inspiring Brain Development for All Young Children!

empowering children to make healthy choices


 brain health


 nutrition education


 social thinking

The Healthy Foundations Program
 LAUREN ZIMET, M.S., CCC/SLP
 Speech Language Pathologist
 404.944.9561

www.earlyinsights.com
zimet@earlyinsights.com

Head Start Body Start

www.headstartbodystart.org

Email: headstartbodystart@aahperd.org

Phone: 1-800-213-7193 ext. 454

**Join the conversation in our
online community:**

<http://hsbs-play.ning.com>



@HSBS_Play
