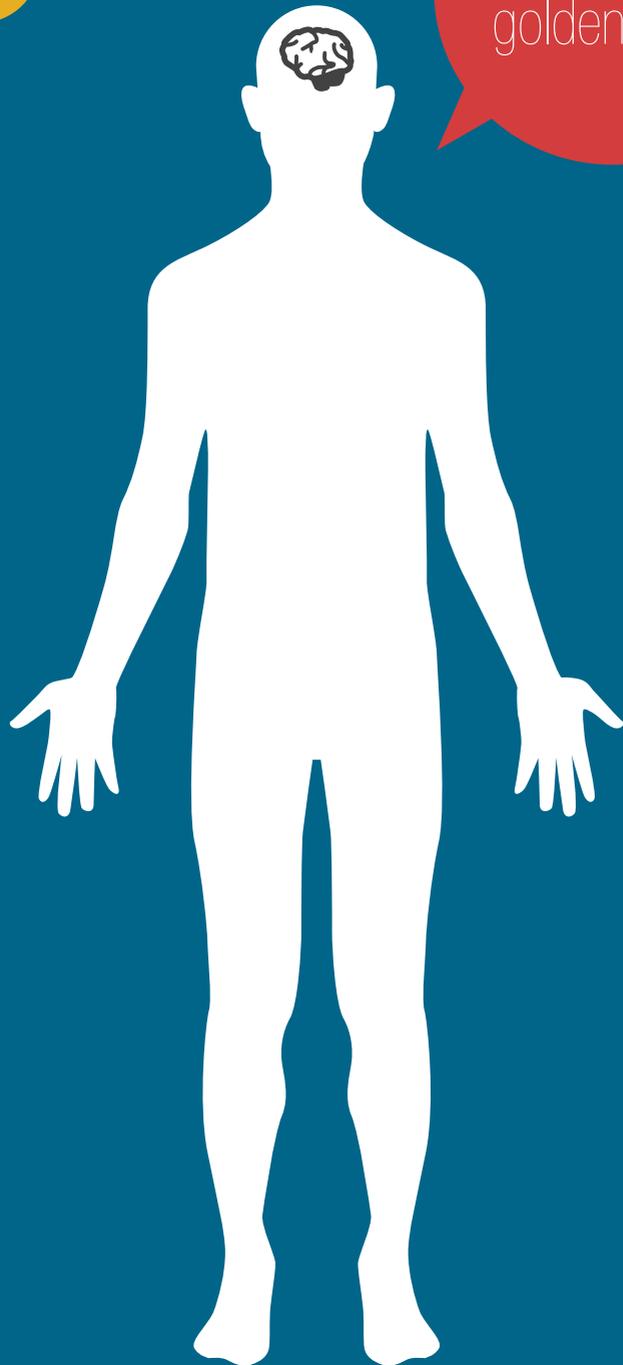




# HEALTHY BRAIN HEALTHY CHILD

the parent's guideline to a healthy,  
balanced diet for your child

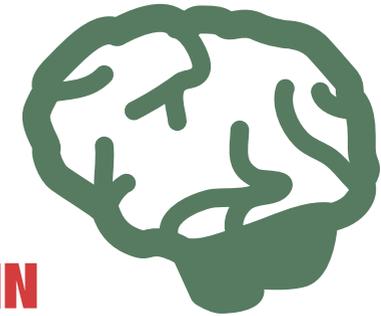




follow the 4  
golden rules



## HOW TO BUILD A HEALTHY BRAIN



A healthy brain requires a healthy diet. This booklet will show how good nutrition can:

- Increase intelligence,
- Improve attention span and concentration,
- Develop problem-solving ability,
- Enhance emotional response and mood,
- Improve physical co-ordination

Brain-function is affected by the food we eat, the liquid we drink and the toxins we cannot get rid of, so it makes sense to try and only consume the best. The following guidelines should be ***adopted by the whole family***. We cannot expect one child to eat healthy foods when the others are allowed junk. This will take co-operation from all family members.

### Follow these 4 Golden Rules

- **Balanced blood sugar**
- **Ensure essential fats**
- **Vitamins and minerals**
- **Avoid food additives, chemicals, bad fats and eliminate food allergies**



## BALANCED BLOOD SUGAR

### Why balance is so important

Carbohydrates turn into blood sugar. Sugar is your brain's super fuel. One of the most important factors for your child's brain is the blood sugar, or glucose. Make sure your child is getting the **RIGHT TYPE and RIGHT AMOUNT at the RIGHT TIME.**

Too much 'fast releasing' sugar means high blood sugar and hyperactivity. Eating little and often helps keep your child's energy level up and keeps concentration even. If your child is consuming too much sugar it may induce hyperactivity and in turn, they may find it hard to concentrate. If your child is not receiving enough they may feel tired, irritated and find it hard to concentrate.

### How to balance blood sugar

#### GO FOR FOODS WITH SLOW RELEASING SUGARS

- ❖ Oats
- ❖ Brown Rice
- ❖ Rye Bread
- ❖ Whole Wheat Pasta
- ❖ Brown Bread
- ❖ Vegetables  
(Excluding potatoes and parsnips)

#### EAT 3x MEALS & 2x SNACKS PER DAY

This will help to maintain blood sugar levels, and prevent highs and lows.

### COMBINE PROTEIN WITH CARBOHYDRATE

Combine protein foods with carbohydrate foods by giving them cereals and fruit with nuts or seeds, and ensuring your child eats carbohydrate-rich foods (potato, bread, pasta or rice) with protein-rich foods such as fish, chicken, lentils, beans or tofu. As fibre is important for slowing sugar absorption make sure your child is getting ample fibre in fruit and vegetables.

- ❖ Cereal with seeds/yoghurt/milk
- ❖ Fruit with yoghurt/seeds
- ❖ Toast with egg
- ❖ Toast with sardines/tuna

### Sugar affects:

- ❖ Brain function
- ❖ Blood sugar
- ❖ Weight
- ❖ Energy levels

*Sugar is ADDICTIVE*, so a diet high in sugar sets bad habits. If sugar consumption is high and it is withdrawn suddenly, withdrawal symptoms such as headaches and irritability may ensue. It is better to make gradual reductions to avoid this, without losing sight of the eventual goal of a diet free of added sugar.

### SAY GOODBYE TO SUGAR, CONCENTRATED JUICES, AND FIZZY DRINKS

Decrease the amount of sugar in your child's diet gradually so that your child will get used to reduced sweetness in their diet. Dilute fruit juices with half water because 'fruit juice' is not much better than sugary water unless it is freshly squeezed. Children who regularly drink processed juice are taking in a lot of sugar and therefore they may suffer from fluctuating blood sugar levels. Feeding their sugar cravings may also cause tooth decay. Avoid foods with added sugar and cut down on foods with fast releasing sugar like bananas, or combine with slow releasing carbohydrates such as oats. *Don't be tempted to go for sugar substitutes – these are detrimental to health and keep sugar cravings alive.*



### WHERE DOES SUGAR HIDE?

Here is a list of foods commonly consumed by children and their sugar content:

1 teaspoon = 5 grams

| Common Food                    | Sugar   | %RDA* |   |
|--------------------------------|---------|-------|---|
| Jam (1 pot)                    | 6.1 g   | 44%   |    |
| Custard (100g serving)         | 11.5 g  | 76%   |   |
| Cereal Bar                     | 15 g    | 100%  |  |
| Blackberry Fruit Juice (288ml) | 30.24 g | 200%  |  |
| BAR-ONE Chocolate (59g)        | 30 g    | 200%  |  |
| Coca-Cola (355ml)              | 39 g    | 260%  |  |
| Ice-Tea (500ml)                | 40 g    | 260%  |  |

\* Recommended Daily Allowance for children over 2 years old.



## WHAT IS THE GLYCAEMIC INDEX?

Glycaemic index ranks foods on how they affect your blood glucose levels. This index measures how much your blood glucose increases in two or three hours after eating. The glycaemic index is about foods high in carbohydrates. Foods high in fat or protein do not cause your blood glucose level to rise much. Your child's Glycaemic Load should not exceed 50 GLs per day. Glycaemic Loads are based on the glycaemic index (GI). Glycaemic load is defined as the grams of available carbohydrate in the food's GI / 100.

### Glycaemic Load of Common Foods:

| Bakery Products                   | Serving size | Looks Like  | GLs per Serving |
|-----------------------------------|--------------|-------------|-----------------|
| Apple & Almond Cake               | -            | 1 med slice | 5               |
| Carrot and Walnut Cake (no icing) | -            | 1 med slice | 5               |
| Apple Muffin - made without sugar | 60 g         | 1 muffin    | 9               |
| Apple Muffin - made with sugar    | 60 g         | 1 muffin    | 13              |
| Crumpet                           | 50 g         | 1 crumpet   | 13              |
| Bran Muffin                       | 57 g         | 1 muffin    | 15              |
| Blueberry Muffin                  | 57 g         | 1 muffin    | 17              |
| Carrot Muffin                     | 57 g         | 1 muffin    | 20              |
| Banana Cake - made without sugar  | 80 g         | 1 med slice | 16              |
| Croissant                         | 57 g         | 1 croissant | 17              |
| Doughnut - Plain                  | 47 g         | 1 doughnut  | 17              |
| Sponge Cake - Plain               | 63 g         | 1 slice     | 17              |

| Breads                              | Serving size | Looks Like    | GLs per Serving |
|-------------------------------------|--------------|---------------|-----------------|
| Wholemeal Rye Bread                 | 20 g         | 1 slice       | 5               |
| Rice Bread, High/Low-Amylose        | 20 g         | 1 small slice | 5               |
| Wheat Tortilla                      | 30 g         | 1 tortilla    | 5               |
| Rye Kernel (Pumpernickel Bread)     | 30 g         | 1 slice       | 6               |
| White, High Fibre Bread             | 30 g         | 1 thick slice | 9               |
| Wholemeal (Whole Wheat) Flour Bread | 30 g         | 1 thick slice | 9               |
| Gluten-Free Fibre-Enriched Bread    | 30 g         | 1 thick slice | 9               |
| Gluten-Free Multi-grain Bread       | 30 g         | 1 slice       | 10              |
| White Wheat Flour Bread             | 30 g         | 1 slice       | 10              |
| Pita Bread - White                  | 30 g         | 1 pita        | 10              |
| Gluten-Free White Bread             | 30 g         | 1 slice       | 12              |
| Corn Tortilla                       | 50 g         | 1 tortilla    | 12              |

| Crisp breads/Crackers | Serving size | Looks Like | GLs per Serving |
|-----------------------|--------------|------------|-----------------|
| Rough Oat Cakes       | 10           | 1 oat cake | 2               |
| Fine Oat Cakes        | 9            | 1 oat cake | 3               |
| Cream Cracker         | 25           | 2 biscuits | 11              |
| Rye Crisp Bread       | 25           | 2 biscuits | 11              |
| Puffed Rice Cakes     | 25           | 3 biscuits | 17              |

| Dairy Products & Alternatives    | Serving size | Looks Like  | GLs per Serving |
|----------------------------------|--------------|-------------|-----------------|
| Plain Yoghurt (No Sugar)         | 200 g        | 1 small tub | 3               |
| Non-Fat Yoghurt (Plain No Sugar) | 200 g        | 1 small tub | 3               |
| Soya Milk (No Sugar)             | 250 ml       | 1 glass     | 7               |
| Low-Fat Yoghurt (Fruit Sugar)    | 150 ml       | 1 small pot | 7.5             |

| Jams/ Spreads                        | Serving size | Looks Like     | GLs per Serving |
|--------------------------------------|--------------|----------------|-----------------|
| Peanut Butter (No Sugar)             | 16 g         | 1 Tbsp.        | 1               |
| Apricot Fruit Spread (Reduced Sugar) | 10 g         | 1 Dessert spn. | 2               |
| Orange Marmalade                     | 10 g         | 1 Dessert Spn  | 3               |
| Strawberry Jam                       | 10 g         | 2 Dessert spn. | 3               |

| Fruit & Fruit Products           | Serving size | Looks Like     | GLs per Serving |
|----------------------------------|--------------|----------------|-----------------|
| Blackberries                     | 120 g        | 1 med bowl     | 1               |
| Blueberries                      | 120 g        | 1 med bowl     | 1               |
| Cherries (Raw)                   | 120 g        | ½ med bowl     | 3               |
| Pear (Raw)                       | 120 g        | 1 med bowl     | 4               |
| Melon/ Cantaloupe (Raw)          | 120 g        | ½ small        | 4               |
| Watermelon (Raw)                 | 120 g        | 1 med slice    | 4               |
| Peaches (Raw)                    | 120 g        | 1 peach        | 5               |
| Apricots (Raw)                   | 120 g        | 4 apricots     | 5               |
| Oranges (Raw)                    | 120 g        | 1 large orange | 5               |
| Plum (Raw)                       | 120 g        | 4 plums        | 5               |
| Apples                           | 120 g        | 1 small apple  | 6               |
| Kiwi Fruit                       | 120 g        | 1 kiwi fruit   | 6               |
| Pineapple (Raw)                  | 120 g        | 1 med slice    | 7               |
| Grapes (raw)                     | 120 g        | 16 grapes      | 8               |
| Mango (Raw)                      | 120 g        | 1 ½ slices     | 8               |
| Apricots (Dried)                 | 60 g         | 6 apricots     | 9               |
| Papaya (Raw)                     | 120 g        | ½ small        | 10              |
| Prunes (Pitted)                  | 60 g         | 6 prunes       | 10              |
| Apple (Dried)                    | 60 g         | 6 rings        | 10              |
| Banana (Raw)                     | 120 g        | 1 small banana | 12              |
| Apricots (Canned in light syrup) | 120 g        | 1 small tin    | 12              |
| Lychees (Canned in syrup)        | 120 g        | 1 small tin    | 16              |
| Figs (Dried, Tenderised)         | 60 g         | 3 figs         | 16              |
| Sultanas                         | 60 g         | 30 sultanas    | 25              |
| Raisins                          | 60 g         | 30 raisins     | 28              |
| Dates (Dried)                    | 60 g         | 8 dates        | 42              |



## DON'T GO WITHOUT BREAKFAST

Eating breakfast is essential to be able to concentrate at school. Breakfast must be a golden rule in any household, but what you put on the breakfast table is equally as important. The best breakfast is low GL. This keeps your child's blood sugar even. No breakfast should be more than 10 GL's in the morning. Avoid sugary, flavoured breakfast cereals, such as Coco-Pops, Frosties, Otees and others in the table below. These cereals will cause a sharp rise in blood sugar and sharp decline mid-morning, aggravating hyperactivity and loss of concentration in class.

| Snack Foods - Savoury                   | Serving size | Looks Like      | GLs per Serving |
|---|--------------|-----------------|-----------------|
| Eggs (Boiled)                           | -            | 2 medium eggs   | 0               |
| Cottage Cheese                          | 120 g        | ½ med tub       | 2               |
| Egg Mayonnaise                          | 120 g        | ½ med tub       | 2               |
| Hummus                                  | 200 g        | 1 small tub     | 6               |
| Olives in Brine                         | 50 g         | 7 olives        | 1               |
| Peanuts                                 | 50 g         | 2 med handfuls  | 1               |
| Cashew Nuts (Salted)                    | 50 g         | 2 med handfuls  | 3               |
| Potato Crisps (Plain, Salted)           | 30 g         | 2 small packets | 7               |
| Popcorn (Salted)                        | 25 g         | 1 small packet  | 10              |
| Pretzels (Oven-baked trad. wheat flour) | 3 g          | 15 pretzels     | 16              |
| Corn Chips (Plain, Salted)              | 50 g         | 18 corn chips   | 17              |

| Snack Foods - Sweet              | Serving size | Looks Like | GLs per Serving |
|----------------------------------|--------------|------------|-----------------|
| Muesli Bar with Dried Fruit      | 30 g         | 1 bar      | 1               |
| Milk Chocolate Bar (Plain)       | 50 g         | 1 bar      | 14              |
| Twix Biscuit & Caramel Bar       | 60 g         | 2 fingers  | 17              |
| Jelly Beans                      | 30 g         | 9 beans    | 22              |
| Kelloggs Pop Tarts (Double-Choc) | 50 g         | 1 pop tart | 24              |
| Mars Bar                         | 60 g         | 1 bar      | 26              |

GL list of foods taken from Patrick Holford's *Optimum Nutrition for Your Child's Mind*. For a more comprehensive list, visit [www.holforddiet.com](http://www.holforddiet.com).

### Glycaemic Load for Breakfast Cereals

| Snack Foods - Savoury            | Serving size | Looks Like      | GLs per Serving |
|----------------------------------|--------------|-----------------|-----------------|
| Porridge made from Rolled Oats   | 30 g         | large bowl      | 4               |
| All Bran                         | 30 g         | 1 small serving | 6               |
| Muesli (Gluten-Free)             | 30 g         | 1 serving       | 7               |
| Egg on Whole-wheat bread/toast   | 30 g         | 1 serving       | 9               |
| Cheese or Anchovy on Bread/Toast | 30 g         | 1 serving       | 9               |
| Natural Muesli                   | 30 g         | 1 serving       | 10              |
| Raisin Bran                      | 30 g         | 1 med serving   | 12              |
| Weetbix                          | 25 g         | 2 biscuits      | 11              |
| Bran Flakes                      | 20 g         | 1 med serving   | 13              |
| Kelloggs Special K               | 30 g         | 1 med serving   | 14              |
| Shredded Wheat                   | 40 g         | 2 biscuits      | 20              |
| Kelloggs Frosties                | 30 g         | 1 med serving   | 15              |
| Kelloggs Golden Wheats           | 30 g         | 1 med serving   | 16              |
| Puffed Wheat                     | 30 g         | 1 med serving   | 16              |
| Kelloggs Honey Smacks            | 30 g         | 1 med serving   | 16              |
| Kelloggs Cornflakes Crunch Nut   | 30 g         | 1 med serving   | 17              |
| Coco Pops                        | 30 g         | 1 med serving   | 20              |
| Kelloggs Rice Krispies           | 30 g         | 1 med serving   | 21              |
| Kelloggs Cornflakes              | 30 g         | 1 med serving   | 21              |

Source: Patrick Holford's *Optimum Nutrition for Your Child's Mind*.



## **SOME DOs & DON'Ts TO CONSIDER**

### **CHOOSE WHOLE-FOODS**

When you eat over-processed carbohydrate foods (e.g. white sugar, glucose, white bread etc.), you are cheating nature by isolating the sweetness in the food and discarding its nutritional value. These foods trigger a rapid rise in blood glucose levels and are at the same time almost completely devoid of vitamins and minerals. Choose whole-foods – whole-grains, lentils, beans, nuts, seeds, fresh fruit and vegetables. With fruit and vegetables, go for dark green, leafy and root vegetables such as carrots, sweet potatoes, broccoli, brussel sprouts, spinach, green beans or peppers - raw or lightly cooked.

### **NO CAFFEINE**

Stimulants may also cause blood sugar problems. Caffeine is an appetite suppressant which may implicate picky eating or refusing to eat breakfast. Products that contain caffeine are cola drinks, tea, coffee and energy drinks such as Red Bull.

### **SNACKS**

A mid-morning and mid-afternoon snack will help your child's blood sugar stay balanced and keep their energy levels even. Choosing low-sugar snacks that combine protein and some slow-release carbohydrate (like fruit or whole grains) will help avoid the hyperactive highs and lethargic lows that you may have witnessed after giving your child biscuits or sweets.

### **FRUIT**

Choose fresh fruit over dried and opt for low-sugar ones such as apples, pears, berries, plums, apricots, oranges and peaches, rather than bananas, grapes and tropical fruit, which are naturally much sweeter. Fruits are best eaten with a handful of nuts or seeds or some yoghurt, to provide protein to slow down the release of sugars in the fruit.



### **NUTS**

If your child's school allows nuts, these make a convenient and incredibly nutritious snack, as they are jam-packed with protein, essential fats and minerals to fuel them through lessons. Choose raw, unsalted nuts if your child will eat them, and go for different types such as almonds, walnuts, brazil nuts, hazelnuts, cashew nuts and pecan nuts, not just the perennial peanut. Nuts should not be shared, as many children suffer from nut allergies. Be careful of nuts in young children as they may cause choking.

### **VEGETABLE STICKS**

Chopped raw vegetables, or crudité's, are easy to eat and fun to dip into pots of hummus, cottage cheese, cream cheese or tomato salsa. Most children like the texture and crunch of raw vegetables, so if they spurn cooked vegetables, don't worry, as eating them raw provides even more vitamins anyway. Do not opt for carrot and cucumber sticks only - try go for a rainbow of colours to ensure your child gets a whole range of phyto (plant) nutrients. Try peppers (not green, which are too bitter raw), celery, cherry tomatoes, baby corn, sugar snap peas, radishes, baby spring onions, and even broccoli florets.

### **YOGHURT WITH FRUIT**

The combination of fruit (slow-release, low sugar carbohydrate) and yoghurt (protein) makes this a blood-sugar balancing, energy boosting snack. Choose natural yoghurt, as it will have no added sugar and contains the beneficial pro-biotic bacteria which help digestion and fights off bacteria. Choose low-sugar fruits such as apples, pears, berries, apricots, plums, oranges and peaches rather than high-sugar bananas, grapes and tropical fruit. You can pop a tub of berries or chopped fruit in your child's lunch box for them to mix or dip into their yoghurt.



## PACK A HEALTHY LUNCH BOX

Include a main lunch item, such as a sandwich, wrap or salad - ideally sandwiches should be made with wholegrain bread (such as whole-wheat bread or pita bread), low GI Bread, rye bread or with oatcakes. Do not buy bread simply labelled 'brown' – it is likely to be white bread that has simply been dyed brown! Make sure the label says 'wholemeal'. Or choose an 'all-in-one' white bread 'with added goodness'.

Include some protein in sandwiches and salads (such as chicken, turkey, eggs, tuna, salmon or hummus) and vegetables (salad or raw vegetables chopped into bite-sized portions).

- ❖ **Oatcakes and vegetable sticks** (crudités) **with hummus/cottage cheese dip**
- ❖ **Smoked salmon, cream cheese and cucumber on whole-wheat/rye bread**
- ❖ **Whole-wheat pita bread stuffed with soy and sesame seasoned tuna with lettuce and cherry tomatoes**
- ❖ **Egg mayonnaise on whole-wheat/'all-in-one' white bread with cress, alfalfa sprouts (which look and taste very similar to cress) or cucumber slices**
- ❖ **Peanut butter** (or other nut/seed butter) **and cucumber on whole-wheat/'all-in-one' white bread**
- ❖ **Cottage Cheese and Prawns on Wholemeal/'All-In-One' White Bread/ Whole-Wheat Pita Bread**
- ❖ **Chicken Salad Wrap** (Sliced chicken, with a mixed salad, wrapped in a tortilla)
- ❖ **TLT** (Turkey, lettuce and tomato on wholemeal/'all-in-one' white bread or in whole-wheat pita bread)
- ❖ **Biltong**
- ❖ **Grilled chicken pieces** (wings or drumsticks)

### **FRUIT & VEGGIES**

- ❖ **Fresh fruit**
- ❖ **Carrot or celery sticks, baby tomatoes, cucumber wedges, lettuce**
- ❖ **Dried fruit and fruit rolls**
- ❖ **Pumpkin fritters**

### **CEREALS, BREADS & STARCHES**

- ❖ **Various healthy breads, crisp bread (rye or wheat), whole-wheat biscuits**
- ❖ **Whole-wheat brown or rye bread or buns**
- ❖ **Popcorn – unbuttered and lightly salted**
- ❖ **Bran muffins or muffins made with fresh fruit like banana or carrots**
- ❖ **Bran rusks or Muesli rusks**
- ❖ **Baked potato with a filling, potato salad or cooked corn**

### **MILK & DAIRY PRODUCTS**

- ❖ **Cottage cheese** (plain cottage cheese with mashed banana or avocado, nuts or dried fruit)
- ❖ **Yoghurt** (Plain mixed with honey, nuts and fresh fruit or "Purity Baby Fruit")
- ❖ **Cheese cut into cubes, or grated**

### **FATS & OILS**

- ❖ **Nuts or peanut butter on bread**
- ❖ **Avocado on bread or cut up in a salad**

### **DRINKS & LIQUID FOODS**

- ❖ **Water**
- ❖ **Home-made lemonade**
- ❖ **Milk with honey, puréed fruit**
- ❖ **Make your own yogi-sip or berry smoothie**





Winter berry smoothie



## SOME RECIPES TO CONSIDER...



### **Lemonade**

This lemonade is sugar-free and contains plenty of vitamin C from the freshly squeezed lemon juice.

- ❖ Juice of 1/2 lemon (1 tbsp.)
- ❖ 2 tsp xylitol, or to taste (available from Dis-Chem may seem expensive but lasts long)
- ❖ 200ml naturally sparkling mineral water
- ❖ Slice of lemon, to decorate

Stir all the ingredients together until the xylitol dissolves. Serve with ice and a slice of lemon.

### **Winter Berry Smoothie**

When summer fruits are out of season use bags of frozen berries from supermarkets for a winter vitamin-C fix. This helps your child's brain turn glucose into energy, giving their immune system a boost and helping to stop them picking up classroom coughs and colds. Grind the seeds in a blender or coffee grinder or blend them with the rest of the smoothie to save time, although this way some little nibs may remain. Leave the berries to defrost for a few minutes or overnight if your blender struggles with fully frozen ones.

- ❖ 1 tbsp. ground seeds (such as a mixture of linseeds, pumpkin, sesame and sunflower)
- ❖ 100g (3oz) frozen mixed berries
- ❖ 50g (2oz) whole oat flakes
- ❖ 1 banana
- ❖ 100g (3oz) natural yoghurt
- ❖ 1 tbsp. xylitol, or to taste

Using a hand-held blender or a liquidiser, blend the ingredients together until smooth. This is a very thick smoothie, so it can either be eaten with a spoon, or loosened with a little water to make it easier to drink.



### **Sweet Potato Chips**

These wedges are baked instead of fried, to make them a much healthier alternative to chips. We prefer to use sweet potatoes, as the orange flesh is packed with the antioxidant vitamin beta-carotene, which is very good for the immune system as well as the eyes, but you could use normal potatoes instead.

- ❖ 2 medium–large sweet potatoes, washed but unpeeled, cut into wedges
- ❖ 1 tbsp. olive oil

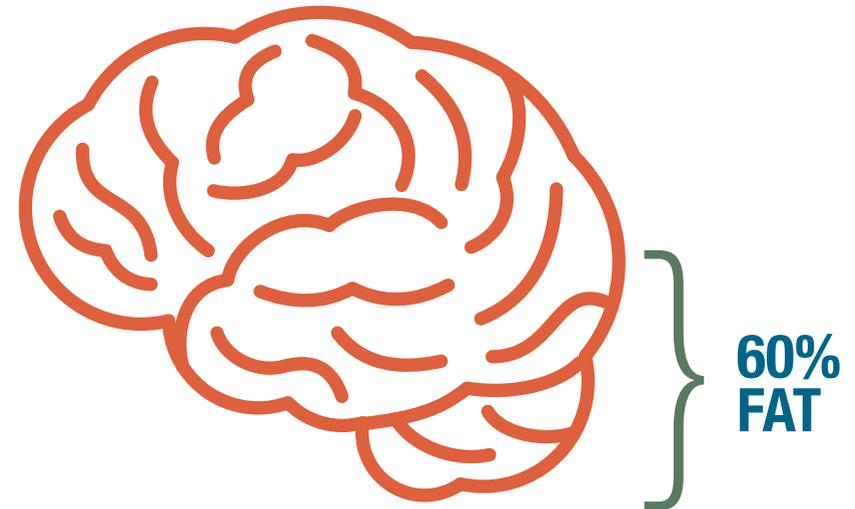
Preheat the oven to 200°C.

Place the wedges on a baking tray and drizzle with the oil, shaking to coat. Bake for 40 minutes, turning the wedges halfway through cooking.



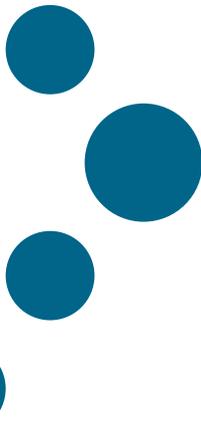
## **ENSURE ESSENTIAL FATS**

**Why is a fat head a smart head?**



Sixty percent of a dried brain's weight is fat, therefore it is no wonder that deficiencies in specific kinds of fats can have huge repercussions on intelligence, behaviour and concentration. **Essential fats help children stay physically healthy**, reducing the risk of allergies, asthma, eczema and infections. The bottom-line is that essential fats are of utmost importance for keeping the state of your child's brain in a healthy equilibrium.

If your child is having 3 portions of oily fish a week and a daily portion of seeds they should be getting a good level of essential fats to help their brains develop and boost IQ.



## HOW DO YOU KNOW IF YOUR CHILD HAS AN ESSENTIAL FAT DEFICIENCY?

Mark an X in the box if the answer is YES.

### Does your child...

YES

- |    |   |                          |
|----|---|--------------------------|
| 1  | ...eat oily fish (salmon, trout, sardines) less than once a week?                               | <input type="checkbox"/> |
| 2  | ...eat seeds or their cold-pressed oils fewer than three times a week?                          | <input type="checkbox"/> |
| 3  | ...eat meat or dairy products most days?  | <input type="checkbox"/> |
| 4  | ...eat processed or fried foods (such as ready meals, chips or crisps twice or more in a week?) | <input type="checkbox"/> |
| 5  | ...have a dry or rough skin or tendency to eczema?  | <input type="checkbox"/> |
| 6  | ...have dry or dull hair or dandruff?   | <input type="checkbox"/> |
| 7  | ...suffer from dry, watery or itchy eyes?   | <input type="checkbox"/> |
| 8  | ...suffer from excessive thirst or frequent urination?  | <input type="checkbox"/> |
| 9  | ...have frequent mood swings?   | <input type="checkbox"/> |
| 10 | ...have a poor memory, attention span or difficulty concentrating?                              | <input type="checkbox"/> |
| 11 | ...have poor physical co-ordination?  | <input type="checkbox"/> |
| 12 | ... get hot easily and always takes off jerseys and jackets?                                    | <input type="checkbox"/> |

**If you have marked 4 or more of the above, your child may need supplements.**



## HOW DO I GIVE MY CHILD ALL THE ESSENTIAL FATS THEY NEED?



### Sources of essential fats:

- |                              |                     |
|------------------------------|---------------------|
| ❖ Mackerel (cold water fish) | ❖ Flaxseed          |
| ❖ Herring (cold water fish)  | ❖ Sunflower seeds   |
| ❖ Sardines                   | ❖ Pumpkin Seeds     |
| ❖ Anchovies                  | ❖ Sesame Seeds      |
| ❖ Tuna Steak                 | ❖ Walnuts           |
| ❖ Salmon                     | ❖ Omega 3 rich eggs |

### FEED THEM PLENTY OF SEEDS

You can grind and sprinkle them on cereal, soups and salads.

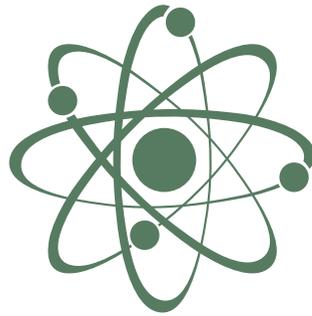
### FEED THEM COLD WATER CARNIVOROUS FISH (2 OR 3 TIMES A WEEK)

This includes sardines, mackerel, herring, kipper or wild/organic salmon.

### CHOOSE FISH OIL TO SUPPLEMENT FATS (CONTACT DR MEYER)

It is vital to choose the correct essential fatty acid supplement and ensure that the dosage is correct. Essential fatty acids must be **purified and free from mercury and other toxins**. The minimum dosage is 600mg EPA and 600mg DHA per day. The more severe the symptoms and the greater the weight of the student, the higher the dosage. The fatty acids must preferably be taken in the morning after breakfast as they may interfere with sleep if taken at night. On an empty stomach they can make one feel nauseous. There are no known side-effects of taking fatty acids and dosages of up to 3000mg are considered safe.

Cheap brands full of mercury and toxins can do more harm than good and remember it is not the amount of oil per capsule but the amount of EPA and DHA that is important. Dr Meyer will be able to assist you to buy the best quality, toxin free, high dosage fish oil on the market.



## VITAMINS & MINERALS

### Why does your child need vitamins & minerals?

Vitamins and minerals are the intelligent nutrients that keep the brain in tune - they are key to building and rebuilding the brain. They mainly come from fruit, vegetables and whole foods and can be supplemented for optimum brain performance. Studies where children were given supplements, especially EPA/DHA, showed an improved IQ.

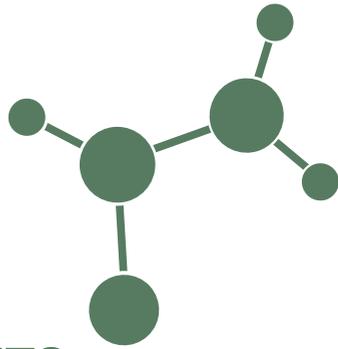
The main role of vitamins and minerals is to help turn glucose into energy, amino acids into neurotransmitters, and essential fats into what is needed in the brain. They are the key to the task of building and rebuilding the brain and nervous system, and keeping everything running smoothly. Vitamins and minerals give your child the ultimate head-start and improve IQ and concentration.

### How do you ensure your child is getting enough?

Steps to ensure your child gets plenty of vitamins and minerals.

- ❖ **Make sure your child eats plenty of foods rich in antioxidants – fruits, vegetables, seeds and fish. The diet should include at least five, ideally seven, servings of fresh fruit and vegetables every day.**
- ❖ **Serve nuts and seeds daily, and choose whole foods, such as whole-grains, lentils, beans and brown rice, rather than refined food.**
- ❖ **Make sure your child follows a good multivitamin and mineral programme. Speak to Dr. Meyer for a full nutritional assessment and supplementation programme according to your child's needs.**  
*Contact number (011) 917-1230*
- ❖ **Do not smoke, and keep your child away from places where people do, also avoid exposure to oxidants.**





## ••• AVOID ANTI-NUTRIENTS & ELIMINATE FOOD ALLERGENS

Anti-nutrients are substances that knock out essential brain-friendly nutrients. Some children develop an allergy or intolerance against particular foods.



### How do you avoid anti-nutrients?

#### **AVOID DEEP-FRIED, BROWNED & PROCESSED FOODS**

So why are trans-fats so bad for your child? They can be taken directly into the brain and appear in the same position as DHA in brain cells, where they proceed to interfere with the processing job DHA does so brilliantly. Trans-fats block the conversion of essential fats into vital brain fats such as GLA and DHA. Twice as many trans-fats appear in the brains of people deficient in omega-3 fats. A deficiency of omega-3 fats and an excess of trans-fats is a bad scenario.

#### **AVOID OR REDUCE**

- ❖ **Refined Sugar** - These are essentially carbohydrates robbed of essential nutrients
- ❖ **Damaged Fats** - These come from fried foods and hydrogenated fats, and from fast foods e.g. KFC and McDonalds
- ❖ **Chemical Food Additives** - Especially artificial colourants and preservatives

### How do you keep your child chemical-free?

During the last 50 years 3500 chemicals have been added to food and over 200000 tons of chemical additives are added to food each year. That excludes pesticides and herbicides that have been sprayed on the fruit and vegetables. These substances interfere with the body's ability to absorb essential nutrients and increases the loss of essential nutrients from the body.

#### **FOOD ADDITIVES**

Tartrazine (E102) has been linked to hyperactivity. Dr. Neil Ward from the University of Surrey decided to test what happens to minerals when drinking tartrazine. He found that adding tartrazine to drinks increased the amount of zinc excreted in the urine thus preventing it from being used in the body. He found emotional and behavioural changes in every child. Four out of ten children had a severe reaction; three out of ten experienced an outbreak of eczema or had an asthma attack within 45 minutes of ingestion.

The primary reasons for adding chemicals to food are to make the food look better and to preserve and stabilise it. Most additives are synthetic with known negative health effects. Long-term consequences have not been established yet, especially for children whose brains and bodies are still developing, therefore it's best to avoid them.

## Top 20 Additives to Avoid

| Additives                                      | Description & Effects  |
|--|--|
| <b>Allura red AC (E129)</b>                    | Widely used as food colouring, in snacks, sauces, preserves, soups, wine, cider, etc. Avoid if your child has asthma, rhinitis (hay fever) and urticaria (an allergic rash also known as hives).   |
| <b>Amaranth (E123)</b>                         | Food colour used in jams, jellies and cake decorations. Banned in the US. Avoid if your child has asthma, rhinitis and other allergies.  |
| <b>Aspartame (E951)</b>                        | Used as a sweetener in snacks, sweets, desserts and "diet foods". Recent reports show the possibility of headaches, blindness and seizures with long-term, high-dose aspartame.  |
| <b>Benzoic acid (E210)</b>                     | Preserves drinks, low-sugar products, cereals and meat products. Can temporarily inhibit the function of digestive enzymes and may deplete glycine levels. Should be avoided by those with allergy conditions such as hay fever, hives and asthma.   |
| <b>Brilliant black BN (E151)</b>               | Used in drinks, sauces, snacks, cheese. Those with allergic conditions such as asthma, rhinitis, etc. should avoid this substance.   |
| <b>Butylated hydroxyl-anisole (BHA) (E320)</b> | Preservative in fat-containing foods, confectionery and meats. Research on cancer say that BHA interacts with nitrates (this interaction can cause changes in the DNA of cells).   |
| <b>Calcium benzoate (213)</b>                  | Preservative in drinks, low-sugar products, cereals and meat products. It temporarily inhibits the function of digestive enzymes and may deplete levels of the amino acid glycine. Should be avoided by those with hay fever, hives and asthma.  |
| <b>Calcium sulphite (E226)</b>                 | Used to preserve many foods from burgers to biscuits and frozen mushrooms. In the US, sulphites are banned from many foods, including meat, because they make foods look fresh and can cause bronchial problems, flushing or reddening of the skin or low blood pressure. To be avoided if you suffer from bronchial asthma, cardiovascular or respiratory problems. |
| <b>Monosodium glutamate (MSG) (E621)</b>       | Used as a flavour enhancer. Sensitivity can cause feeling of pressure in the head, seizures, chest pains, headache, nausea, burning sensations and tightness of the face. Many baby-food producers have stopped adding MSG to their products.  |
| <b>Ponceau 4R, Cochineal red A (E124)</b>      | Used as a colouring. People who suffer from asthma, rhinitis, urticaria, may find their symptoms become worse following consumption of foods containing this colouring.  |

| Additives  | Description & Effects  |
|--|--|
| <b>Potassium benzoate (E212)</b>                                 | See calcium benzoate (Above)   |
| <b>Potassium nitrate (E249)</b>                                  | Preservative in cured meats and canned meat products. Can lower oxygen-carrying capacity in the blood, and it may have an atrophying (shrinking) effect on the adrenal gland.  |
| <b>Propyl p-hydroxy-benzoate, propyl-paraben, paraben (E216)</b> | Used in cereals, snacks, paté, meat products and confectionery. Parabens have been identified as the cause of chronic dermatitis in numerous instances.  |
| <b>Saccharin and its NA, K and CA salts (E954)</b>               | Used as sweetener, found in diet and no-added sugar products. The international Agency for Research on cancer has concluded that saccharin is possibly carcinogenic (possibly causes cancer) to humans.  |
| <b>Sodium metabisulphite (E223)</b>                              | Used as a preservative and antioxidant. May provoke life-threatening asthma.   |
| <b>Sodium sulphite (E221)</b>                                    | Used in wine-making and other processed foods. Sulphites have been associated with triggering asthma attacks. Most asthmatics are sensitive to sulphites in food.  |
| <b>Stannous chloride (Tin) (E512)</b>                            | Used as colour-retention agent in canned or bottled foods and fruit juices. Acute poisoning has been reported from ingestion of fruit juices containing concentration of Tin greater than 250mg/l causing nausea, vomiting, diarrhoea and headaches.   |
| <b>Sulphur dioxide (E220)</b>                                    | Used as preservative. Sulphur dioxide reacts with a wide range of substances found in food, including various essential vitamins, minerals, enzymes and essential fats. The most common adverse reaction to sulphites is bronchial problems, particularly in those prone to asthma. Other adverse reactions may include hypertension (low blood pressure), flushing, tingling sensations and anaphylactic shock. |
| <b>Sunset yellow FCF, Orange/yellow S (E110)</b>                 | Used as food colouring. Animal studies show growth retardation and severe weight loss. People with asthma and rhinitis should avoid this product.  |
| <b>Tartrazine (E102)</b>   | Used as food colouring. May cause allergic reactions in perhaps 15% of the population. It may be a cause of asthmatic attacks and has been implicated in bouts of hyperactivity disorder in children. Those who suffer from asthma may find symptoms worsen after consumption.   |

Source: P.Cox and P Brusseau, Secret Ingredients.



## CHOOSE ORGANIC!

Try to avoid pesticides as much as possible. **Always choose organic** first and whenever you can. The presence of pesticides on fruits and vegetables is widely acknowledged. Organic means much more than 'pesticide free'. Organic meat or fish has to adhere to strict rules, not only about the feed, but also about how animals are reared and the use of growth hormones and antibiotics. It is well worth paying the extra for organic meat, eggs, fish or milk. It is difficult to only use organic products but try to follow the following guideline.

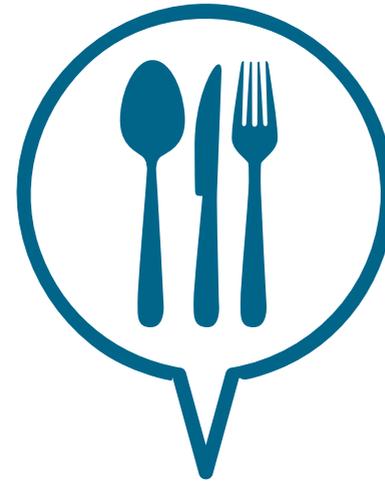
### Buy these organic:

- ❖ Celery
- ❖ Peaches
- ❖ Strawberries
- ❖ Apples
- ❖ Blueberries
- ❖ Nectarines
- ❖ Bell Peppers
- ❖ Spinach
- ❖ Cherries
- ❖ Kale/Collard Greens
- ❖ Potatoes
- ❖ Grapes (Imported)

### Lowest in Pesticides

*OK to eat if conventionally grown*

- ❖ Onions
- ❖ Avocado
- ❖ Sweet Corn
- ❖ Pineapple
- ❖ Mangoes
- ❖ Sweet Peas
- ❖ Asparagus
- ❖ Kiwi
- ❖ Cabbage
- ❖ Eggplant
- ❖ Cantaloupe
- ❖ Watermelon
- ❖ Grapefruit
- ❖ Sweet Potato
- ❖ Honeydew & Melon



## UNDERSTANDING CHILDREN'S FOOD ALLERGIES

As many as one in five adults and children, and probably one in three with behavioural problems, react allergically to common foods such as milk, wheat, yeast and eggs. The knowledge that allergy to foods and chemicals can adversely affect moods and behaviour in children has been known, and ignored, for a very long time. Early reports back in the 1980s, confirmed by recent double-blind controlled trials, have found that allergies can affect any system of the body, including the central nervous system. They can cause a diverse range of symptoms including fatigue, slowed thought processes, irritability, agitation, aggressive behaviour, nervousness, anxiety, depression, ADHD, autism, hyperactivity and learning disabilities. These types of symptoms can be caused by a variety of substances in susceptible children, though many have reactions to common foods and/or food additives.

This booklet is the first stage to improve concentration. If the suggestions in this booklet do not improve your child's concentration and behaviour contact Dr. Meyer for Allergy testing and a revised dietary programme.

CONTACT **DR MEYER - 011 9171230**



## Substitutions & Alternatives

For use in an Elimination Diet

Products not readily available at supermarkets can be purchased at Dis-Chem Pharmacies or health shops.

| To Replace    | Use   |
|---------------|---|
| Milk          | Rice, almond, coconut, or homemade nut milk<br>(1/2 cup raw nuts or seeds with 1 cup water blended until smooth)  |
| Cheese        | Rice and almond brands – read labels and watch for <b>casein-free</b> brands  |
| Eggs          | Energy egg replacer or blend 1 T. flax seeds in blender with ¼ cup water and allow to thicken   |
| Peanut butter | Nut butters made from almonds, cashews, macadamia, walnut, pumpkin, hazelnut, sesame (tahini)   |
| Breading      | Grind any allowable rice cracker and use as breading  |
| Ice cream     | <b>Rice Dream</b> (vanilla), 100% frozen fruit juice bars ( <b>Dole and Tazo</b> brands); <b>Cascadian Farms</b> berry sorbets                                |
| Soda          | Knudsen, Seltzer and juice; water; diluted juice  |
| Jams          | <b>Cascadian Farms</b> all-fruit jams, <b>Sorrel Ridge</b> or <b>Polaner</b> (read label carefully)   |
| Sugar         | Fruit juice concentrate- <b>Mystic Lake Dairy</b> or <b>Wax Orchard</b> ; brown rice syrup; Stevia  |
| Pasta         | Rice noodles (e.g., <b>Mrs. Leepers, Pasta Risio and Food for Life</b> brands), 100% buckwheat udon noodles; cellophane noodles made from bean threads        |
| Wheat bread   | Rice cakes, rice crackers ( <b>Trader Joe's</b> ), rice almond and rice pecan breads, Energe brown rice or tapioca bread                                      |
| Wheat cereals | <b>Perky's nutty rice, Crispy Brown Rice</b> , puffed rice, puffed millet, cream of rice  |
| Wheat flour   | Rice, quinoa, amaranth, millet, teff, arrowroot, tapioca bean; nut and seed flours – use in combination with others to replace the full amount of wheat flour |

when in doubt  
call **Dr. Meyer**  
011 917 1230



### References

- Patrick Holford & Deborah Colson “Optimum Nutrition for your Child’s Mind”
- Patrick Holford “Optimum Nutrition”
- Julie A. Buckley “Healing our Autistic Children”
- Judith Chinitz “The Specific Carbohydrate Diet”
- D. Benton “The impact of the supply of glucose to the brain on mood and memory”

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