

THE INFLUENCE OF NUTRITION ON MOOD, BEHAVIOUR, LEARNING ABILITY AND PHYSICAL WELLBEING IN CHILDREN

The food that we give our children has a huge impact on their emotional and physical wellbeing. Allergies, asthma, attention deficit disorder, hyperactivity, obesity and mood disorders such as anxiety and depression are on the increase. Whilst other factors such as stress, lack of exercise, lack of sufficient sleep, exposure to environmental toxins and too much stimulation from computer and video games play a role, nutrition is one of the biggest factors. When a child is fed a wholesome, balanced diet free of artificial additives, trans-fatty acids and refined carbohydrates and sugars they can cope better with life's pressures and demands and will not succumb to physical ailments, mental disorders and illnesses as easily. Consider the following:

- Proteins contain amino acids which are involved in the production of neurotransmitters that influence mood. **A lack of any one of the essential amino acids will result in a neurotransmitter imbalance and thus mood will be affected.** Poor quality protein, lack of sufficient protein or incomplete digestion will contribute to this problem.
- **Essential fatty acids are necessary for the production of prostaglandins that help to prevent allergies and inflammation. They are also important for proper brain function.** The absorption of essential fatty acids is impaired when trans-fatty acids, saturated and monounsaturated fatty acids predominate in the diet and the situation is worsened by a lack of essential fatty acids. Balance of the various fats and essential fatty acids is the key to good health. Essential fatty acid supplementation is valuable in correcting ADD & ADHD but the supporting nutrients that aid utilization of the fatty acids are equally necessary – vitamin B3, B6, C, biotin, zinc and magnesium.
- **Additives, particularly colourants and flavourants have a negative effect on practically all bodily systems.** Symptoms involving the respiratory tract include asthma, rhinitis and nasal polyps. Gastro-intestinal symptoms include constipation and irritable bowel syndrome, and neurological symptoms include headaches and behavioural disturbances. Additives play a major role in the development of ADD and ADHD so pay close attention to food labels.

In the EU, all food and drink products containing the following colourants have to by law include a warning stating, "MAY HAVE AN ADVERSE EFFECT ON ACTIVITY AND ATTENTION IN CHILDREN" - E102 : Tartrazine, E104 : Quinoline yellow, E110 : Sunset yellow, E122 : Azorubine, Carmoisine, E124 : Rouge ponceau, Ponceau 4R, E129 : Rouge allura, red 40. When you move away from convenience foods and prepare meals from scratch, you invariably reduce your child's intake of food additives.

- **Sugar can affect children in various ways** – some are actually allergic to sugar and for most, excess sugar or sugary foods especially when eaten on empty stomach, spike blood sugar levels resulting in initial hyper-activity followed by a downer that can greatly affect energy and mood. Sugar and sugar-containing foods are the worst offenders when it comes to the ability of a child to concentrate. A breakfast of coco pops and sugar is not an ideal way to start your child's day! Even more concerning is the fact that sugar can be addictive. Dr. Abram Hoffer, the father of Orthomolecular Medicine, says: "Sugar is an addiction far stronger than what we see with heroin. It is the basic addictive substance from which all other addictions flow. Refined sugar and all refined foods such as polished rice, white flour, and the like, are nothing less than legalized poisons." Dr. Carolyn Dean says: "Once children become addicted to sugar they can't seem to get enough of it and they are hooked for life. Sugar robs the body of nutrients, challenging both mental and physical health. That's why the treatment of addictions begins with diet and utilizes vitamins, minerals, homeopathic remedies, and behavioural and psychological counselling.

And, whilst we're on the subject of sugar, let's not forget that excess sugar and refined carbohydrates (white bread, white flour, white pasta, white rice) put strain on the pancreas to produce insulin. After years on a diet where sugar and refined carbohydrates predominate, the pancreas eventually becomes exhausted and can no longer produce sufficient insulin to move sugar (glucose) from the blood into the cells. The result? Diabetes.

Blood sugar imbalances result from the over consumption of refined sugars and carbohydrates. Unstable blood sugar is a major contributor to mood problems, bad behavior, poor concentration and learning difficulties. In the long term, physical health is also affected. **Choose low GL foods that have a stabilizing effect on blood sugar and provide lasting energy.**

- We are living in a toxic world. **Heavy metals, chemicals and other pollutants** are in our water, the air that we breathe, in our food, in our cleaning materials and in our toiletries. These contaminants can build up in the body and are **known contributors to poor health and disease**. Compared to generations ago, our total body burden (our chemical load) has increased. Allergies, asthma, eczema and cancer are very much related to a toxic body with a poor immune system. Lead, cadmium and aluminium accumulate in the brain and are associated with bad behavior, poor concentration and memory as well as decreased IQ. In 2007, there were record numbers of product recalls for toys manufactured in China, the majority of which were related to excess lead levels in the paint. These included well known brands such as Fischer-Price, Thomas & Friends, and Barbie.

Nitrates and nitrites, the preservatives used in cold meats, bacon and sausages form nitrosamines which are known carcinogens. Tartrazine, a commonly used colourant binds to zinc, a mineral often deficient in children and very important for a strong immune system and healthy brain function.

Now consider the impact of all these chemicals on a young child a quarter of an adult's weight – they are far more prone to toxicity than adults. Childhood cancers are on the rise and toxicity is a very big factor. We cannot escape chemicals and toxins completely but we can do a lot to minimize our child's exposure and contact with them. For example, reduce or eliminate the use of chemical-laden toiletries and household cleaners. Use a water filter or purifier to clean your drinking water. Consider your food choices and try and opt for organic as far as possible. How about starting your own organic veggie garden and involving your child?

A well nourished body will eliminate these foreign chemicals, so it helps to be conscious about healthy food choices whilst simultaneously being mindful of chemical exposure.

Visit www.ewg.org and download their shopper's guide which details the least and most contaminated fresh produce. This enables you to choose foods which have minimal pesticide residues if you cannot buy organic.

- **Nutrient deficiencies have a profound effect on a child and can negatively impact on immunity, energy, mood and learning ability.** A child's diet should contain optimal amounts of vitamins, essential fatty acids, amino acids, minerals and antioxidants. For example, essential fatty acids, zinc, iron, B-vitamins, choline, vitamin C and antioxidants are of great importance when it comes to learning ability and memory. Vitamin A, C, D, E, zinc, selenium and antioxidants are needed for strong immunity. Omega 3 fatty acid and zinc deficiency is implicated in ADHD. Vitamin C, selenium and zinc are especially needed for the removal of mercury from the body. The food refining process removes up to 90% of minerals so a child is deprived of health giving minerals when fed refined foods. A nutrient-rich diet that includes a variety of natural, wholesome foods is essential for peak mental and physical health. *It is important to note here that whilst a multi-vitamin and mineral supplement is of value, it does not compensate for a poor diet. See information further on about supplementation.*
- **Food intolerances and allergies are common in children.** The biggest offenders are wheat and gluten, corn, dairy products, soya and peanuts and to a lesser degree eggs, oranges and strawberries. In the case of eggs, it is often the white of the egg that is allergenic. Symptoms of food allergy are: dark circles under the eyes, a constantly running nose, nasal congestion, sinusitis, headaches, weight gain,

bloating, constipation or diarrhea, hyperactivity, fatigue, short attention span and decreased learning ability to name but a few. Ruling out suspected foods is not easy but a good place to start is by eliminating the most common allergens such as wheat and dairy. Dairy and wheat are often the triggers for asthma and eczema. Muscle testing is another simple method that can be performed with the help of a kinesiologist. Blood tests and skin prick tests are not always accurate and are often very expensive.

OTHER NON-NUTRITIONAL FACTORS

- Our technological advances in their various forms have resulted in us being constantly exposed to **electromagnetic radiation** in some form. Some devices are less harmful than others, but ongoing daily exposure to electronic equipment can increase our susceptibility to various ailments and illnesses. Some people are affected severely. The extent of your sensitivity can be determined by muscle testing. Cell phones and wireless devices are the greatest threats and should as far as possible be kept away from children. Brain cancers are on the increase and cell phones have been implicated. In fact the World Health Organization recently issued a report stating that cell phones can cause cancer. Experts have been reporting on this for years so it is good to finally have admission on these facts from the WHO.

Limit the amount of TV, computer and video games that your child indulges in and encourage outdoor activities. The exposure to fresh air and sunshine is vital for good health and a sense of wellbeing.

- **Moulds** are often an unseen problem that few people think about. Moulds release spores containing mycotoxins that have the potential to trigger asthma, allergies and even serious illness and infections. In the long term, immune deficiency ending with cancer is possible. Moulds thrive in damp areas. Ensuring good ventilation is a good step in attempting to prevent or alleviate the problem. Spray white vinegar on affected areas. Tea tree oil is also a powerful mold killer. Use 1 – 2tsp in a cup or two of water and put into a spray bottle for use directly on the mold.
- **Dust mites** are another common cause of allergies. If allergies are present, consider the regular cleaning of carpets, upholstery and mattresses. The removal of carpets and replacement with tiles or wood flooring is a sensible option.
- **Stress** depletes the body of nutrients, particularly the B vitamins and magnesium. Severe, ongoing stress is enough to make a person ill. Children are no exception and our kids are exposed to stress far more nowadays than in the past. Consider their home environment, aftercare, extra mural activities and play date arrangements. Children that are constantly on the move going from one activity to the next and one play date to another, with full itineraries on the weekends are seldom given the

opportunity to “just be”. Children need chill time on their own and with their family. Children pick up vibes from stressed out, angry parents. Parents cannot be expected to be on their best behavior at all times, but constant daily drama and tension is exhausting and stressful for everyone. Tackle your problems by seeking out help and making the necessary changes.

- **Lack of exercise** dampens mood, encourages weight gain, impairs circulation and generally affects health negatively. Exercise results in the release of the feel good endorphins which we could all do with a good dose of!
- **Fresh air and sunshine** are vital! Exposure to sunshine results in the manufacture of vitamin D which is essential for strong bones in growing children. Vitamin D also affects mood and immunity. In certain countries where there is minimal sunshine, a disorder called SAD (seasonal affective disorder) is prevalent. Suicides are particularly common during these periods.

Fresh air literally clears out the cobwebs and can help us to think more clearly. Oxygenation is vital for good health. Try and keep fresh air circulating throughout the house to prevent stale air from building up. If your home has been locked up for the day, as soon as you get home open all the windows for as long as possible. A walk at the beach exposes us to negative ions (the good ions) which have a positive effect on our health.

PARENTS ARE RESPONSIBLE FOR THEIR CHILDREN'S HEALTH

Our children are reliant on us to make the right decisions and choices for their good health and wellbeing. One of the greatest gifts you can give to yourself and your family is to be dedicated and committed to providing the best possible foods. The key to success is to arm yourself with the knowledge and information needed in order to make the right food choices that will nourish them physically and mentally and boost their immune systems.

HEALTHY EATING NEED NOT BE EXPENSIVE

Healthy eating does not need to be expensive. For example, if you cannot afford fresh fish, buy tinned sardines or pilchards. Sardines and pilchards are an excellent food as they are rich in protein, calcium and omega 3 essential fatty acids. As they are small, they are the least likely to accumulate an excess of mercury in the way that the larger fish such as tuna do. Eat fruit in season. The trusty staples of apples, oranges, pears and bananas are generally affordable. When you cut out sweets, biscuits, cold drinks and takeouts, you will have more money for healthy foods. In fact, unhealthy items are often more expensive than healthy items. Consider the boxed sugary cereals – weight for weight they are far more expensive than regular oats! Just cutting out juices (in their various forms) and

drinking good old plain water will result in a huge saving. When it comes to nuts and seeds – seeds are cheaper and go further. Seeds like sunflower, flax, pumpkin and sesame provide amazing nutrition and whenever possible should be ground up and added to meals such as smoothies and breakfast porridge.

MAKING THE CHANGES

When implementing dietary and lifestyle changes see it as a process. Plan the changes and implement them over a period of weeks or months. Make one to three changes weekly depending on what is manageable and realistic for you. Expect resistance but explain the reasons for the changes. Communication is vital. Don't be too regimental about things and don't force the food issue with your children – you will end up with a power struggle on your hands. It is all about gentle perseverance. I have found that foods that were once resisted are eventually accepted. Our eldest daughter is very fussy but I have made incredible progress over the years simply by not being too pushy, but also never giving up. Very importantly, praise them when they eat healthy foods. I see no problem with offering a little treat after dinner if it works to get them to eat an especially resisted dinner - as long as it doesn't happen too often. We have found it works and has never become an issue. When it comes to kids, a little healthy bribery is not the end of the world! (I know that psychologists may not agree with this!) I don't expect them to eat a food they really don't like but I do expect them to try it – that is often the battle. Once they have tried it though, they usually like it.

COMMITMENT & PERSEVERANCE

We don't live in a perfect world and things don't always go according to plan. If you slip from time to time or don't feel that you are making the progress that you'd hoped for, give yourself a break and don't beat yourself up about it. Just get back on track when you are ready and able. Life is stressful enough without putting added pressure on yourself. The most important thing is to remain committed to your health journey; don't give up. Seek out support if you need guidance, advice and encouragement.

KEEPING THE BALANCE

Minor dietary indiscretions are fine when the diet as a whole is balanced and nutritious. Life is for living and food is for enjoying so keeping the balance is important. Reserve one night a week, say a Friday night, as treat night. On these evenings, have pizza or go down to the harbor and enjoy some fish and chips. Sweets, cakes and biscuits should be seen as treats and given in moderation preferably after a meal to avoid blood sugar spikes. Kids should know that treats are exactly that – treats – not an everyday indulgence. In our house, if the kids want something sweet, they have the option of fruit, say a banana or apple, or some raisins, dates or mango strips. Keep in mind though, that dried fruit,

although nutritious, is still very high in natural sugars, and should therefore be consumed in moderation.

DEALING WITH ADD & ADHD

Since ADHD is becoming more and more prevalent, it pays to understand this problem and then look to diet and appropriate supplementation to rectify the disorder. Dealing with the root of the problem is better than resorting to potentially harmful drugs for suppression of the symptoms. I have an excellent article on ADHD by Dr. Carolyn Dean – please e-mail me for a copy: desiree@healthwize.co.za.

MEALS AND SNACK SUGGESTIONS FOR CHILDREN

The meals and snacks listed below are merely suggestions that will help guide you in your meal planning. The options available to you are endless. The idea is to base your family's diet on whole, natural foods free of artificial additives, bad fats, sugar and refined ingredients. In the section that follows this, there are some important guidelines to help you with your food choices.

There are a number of food movements and diets that all promote a particular way of eating and often exclude certain food groups. For example, vegetarian diets, low fat, macrobiotics, food combining and high protein diets. Each have their pros and cons and have been useful in healing people. However, it is unnecessary to subject children to these extremes and can in fact be quite dangerous. Quite simply, the ideal diet for a child should be: Free of artificial and junk foods, bad fats, sugar and sweets; contain a moderate amount of carbohydrates, protein and fruits from whole foods; ensure sufficient fat from healthy sources and include as many vegetables as possible, many raw and some cooked.

SNACKS

Some of these snacks can double up as light lunches. Some of the suggestions are more appropriate for at-home snacks but many are suitable for packing into lunch boxes.

Brown rice cakes, rye crackers, wholegrain bread or toast or Nairns oatcakes with toppings such as:

- Cottage cheese, tomato & cucumber.
- Avocado with cucumber, tomato and spring onion
- Tuna, egg or chicken mayonnaise (add finely shredded lettuce and diced cucumber to the mix if you can)
- Tahini and a thin layer of raw honey
- Hummus with tomato & cucumber

- Nut butter eg. cashew, macadamia, peanut, sunflower seed
- Tuna or fish pate
- Roast vegetables with pesto and ricotta (for adventurous children!)

Note that rice cakes are suitable for those who are gluten intolerant. Oats contain a little gluten so may not be suitable for those with severe intolerance.

Get the Vital or Woolworths brown rice cakes. Get the Nairns oatcake range at the Health Connection stores.

Fruit, fruit kebabs or fruit salad:

- Plain fruit either whole or sliced
- Fruit pieces threaded onto a skewer as a fruit kebab
- Fruit salad consisting of 3 – 4 different fruits
- Fruit pieces, especially strawberries dunked into raw chocolate or carob
- Fruit with chopped nuts and yoghurt

Natural yoghurt; you could add some fruit puree to plain yoghurt for flavor. Pear puree is delicious. Add chopped or ground up nuts and seeds. Adding freshly ground flaxseeds is also a fabulous option. Sliced banana also works well.

Crudités (vegetable sticks - carrot, cucumber, baby marrows, celery, mange tout, baby corn) with a dipping sauce of hummus, guacamole, fresh snoek pate or cottage cheese. Pack in some cherry tomatoes and olives too.

Homemade soup with fresh, chunky wholegrain bread free of additives.

Dried fruits such as dates, non-oiled raisins, mango strips, peaches and pears. Be sure to buy those that are not preserved with sulphur dioxide.

Healthy snack bars that contain natural foods with no additives or regular sugar. A small amount of raw organic cane sugar is sometimes used in these bars, and although not ideal, the low GI of the seed bar slows the release of sugars into the bloodstream.

Ideas: Heartland Oatsli organic snack bars (usually 6 in a pack @ R 20.99 per pack from Pick 'n Pay). McNabs raw snack bars – R 9.95 from Health Connection.

Date balls are quick and easy to make. They make a superb sweet snack.

Dried fruits, nuts and seeds as trail mixes. Make up your own combinations that include from 2 to 5 different ingredients. Choose from raw, unsalted macadamia nuts, cashews and pecans; dried fruits such as cranberries, apple rings, pear, mango, pineapple, goji berries, banana and raisins; seeds such as pumpkin seed and sunflower seed. Raw real chocolate chips (called nibs) can also be added for interest and sweetness and are actually healthy!

Fresh fruit & raw nuts are a good combination. Kids particularly like cashews and pecans. Try pecans or cashews with apple slices. Almonds are the most of healthful of all the nuts, but not as well liked by kids.

Carrot or banana muffins with a spread of butter. Preferably home-baked.

Popcorn (instead of chips)

BREAKFAST

Smoothies: A fantastic way to pack loads of nutrients into one meal! They can be as simple or complicated as you want. Simply blend ingredients together in a blender. Here are some very basic ideas:

Fruit & nut or seed shake: 1 – 2 oranges and / or ½ pineapple peeled and cubed; sunflower seeds or blanched almonds that have been soaked overnight; ½ tsp raw honey; purified water.

Berry smoothie: ½ pineapple peeled & diced; half a cup of soaked sunflower seeds or almonds; 1 cup frozen berries, purified water

Berry whip: As above but add 1 scoop of whey protein powder

Whey protein smoothie: 1 – 2 scoops whey protein powder (non-commercial); raw egg yolk; banana; ground flaxseed; 1 tbsp. coconut oil; 1/2tsp honey; purified water. You could replace the banana with ½ - 1 cup frozen berries for a beautiful pink berry whip.

Yoghurt smoothie: 100 – 150ml's yoghurt; banana, egg yolk; 1tsp coconut oil; water

Banana & coconut smoothie: 1 banana; ½ can coconut milk; ½ tsp raw honey; water.

You can get very creative with smoothies. You could make delicious chocolate smoothies using raw chocolate and gorgeous creamy blends of tropical fruits. You could make smoothies containing superfood powders such as Maca, Hemp, Lacuma, Baobab powder and Camu Camu Berry. Have fun experimenting! Dates are also a great addition to smoothies. Soak the dates overnight to soften them up for easy blending. You can also freeze very ripe bananas to use in smoothies for a frozen, milkshake type smoothie.

Note: *when adding water to smoothies, start with a little and blend, then add more after the first blend if you require a thinner consistency.*

Oats porridge: Use rolled oats – soak overnight with a teaspoon of natural yogurt. Cook for breakfast. Add a small teaspoon of honey and a dollop of butter. Grind a seed mix or a single seed such as flaxseed in a coffee grinder and add to the porridge to provide additional protein, minerals and essential fatty acids. You can also use millet or quinoa flakes or polenta for porridge breakfasts.

Fruits: *whole or sliced fruits or fruit salad*

Light foods such as fruits eaten in the morning can encourage cleansing of the body. From morning till noon the body's cycle is in elimination mode and therefore it is beneficial to work with this cycle and have foods that are easy to digest. This frees up energy for cleansing and detoxification. Apples have a low GI and are very cleansing so one morning on the weekend just give apples as breakfast and for snacking.

Kids generally need protein at breakfast to help ensure balanced blood sugar levels and a feeling of satiety so the morning of fruit is best done on a weekend morning when apples can be given frequently.

Fruit & nuts *(natural yoghurt can be added if intolerance is not an issue)*

Apples & pecans or cashews are a simple, delicious combo.

Poached, boiled or lightly fried eggs with whole grain toast

LUNCH

Most of the suggestions are suitable for lunch boxes. Home meals can include more in the way of separate food items and hot foods. Lunch box meals need to be simple and combined as in the case of sandwiches and salads. Some of the dinner suggestions further down can also be home lunch options. Try and always add some raw veggies into lunch meals or served on their own. For kids the best way is to include them grated into pasta, rice or potato salads.

Wholegrain sandwiches (preferably fresh, non-commercial breads), pita breads or wraps with fillings:

For kids, safe bets are the addition of just a few raw veggies at a time. Tomato, cucumber, carrots and finely shredded lettuce are usually accepted by them! Onions, radishes and “burny” type vegetables may not be welcome unless they have acquired the taste.

- Egg, chicken or tuna mayo with finely shredded lettuce, finely chopped cucumber and finely diced tomato.
- Avocado with lettuce, cucumber and tomato
- Cottage cheese with lettuce, cucumber and tomato
- Hummus and vegetable
- Roast vegetables, ricotta & pesto
- Sardines on toast makes a healthy and filling lunch

Make **toasted sandwiches** on cold days. Use cheese as a treat – toasted sandwiches are just not the same without cheese! Remember, however, that wheat and dairy are mucous forming and not the greatest combination.

Potato salad: Cooked potato cubes, hard-boiled eggs chopped up, diced cucumber, diced tomatoes, chopped parsley, corn, cheese cubes (optional), a sprinkling of natural sea salt and homemade mayo.

Rice or pasta salad: Wholewheat or non-gluten pasta or brown rice with a variety of added ingredients in combinations that suit your child’s tastes. This is a great way to sneak raw veggies into meals! Ingredient ideas: grilled chicken pieces, tuna, diced cucumber, grated carrot, finely shredded lettuce or spinach, small pineapple pieces, baby tomatoes, sun-dried tomato, avocado, peas, corn, finely chopped nuts or seeds, spring onion or leeks. Add homemade mayo, a vinaigrette dressing or pesto if your child will accept it.

Green salad: Basic green salad with a protein topping such as tuna, chicken, cooked chickpeas, cooked lentils, cooked brown rice and feta. This will most likely be enjoyed more by an older child.

Chicken wings or pieces: Use leftovers from dinner the night before with some coleslaw on the side.

Corn on the cob

Boiled eggs (already peeled for younger children)

Quiche slice: Homemade quiche is delicious and satisfying

Pizza slice: Left over's from dinner the night before. Pizza as an occasional treat is fine. The combination of wheat and dairy (the two most common allergens) is in most cases best avoided especially by those who have mucous problems. In this case, make your own bases with gluten free flour. You could also educate yourself on vegetarian toppings that include nut cheese rather than dairy cheese. I have tasted the most delicious raw, vegetarian pizza!

Homemade soup with croutons (oven baked) or fresh wholegrain bread & butter.

DINNER

Below are a few simple and inexpensive meal suggestions for the busy family. If you're a gourmet cook and have loads of time on your hands, then go wild! These suggestions serve merely as a guide.

VEGETABLE MEALS

Vegetable casserole

Butternut topped with savoury rice or risotto and served with salad

Potato and vegetable bake

Vegetable soup eg. butternut soup

Vegetable curry – mildly curried for kids

Vegetable risotto made with short grain brown rice which is much cheaper than risotto rice. The secret to good risotto is good stock. Wine is not necessary.

Lentil, baby marrow & ricotta bake

Vegetable patties served with steamed vegetables or salad

Baked potatoes with toppings such as cottage cheese, spinach, mushroom and feta, tuna served with lightly cooked veggies or salad.

EGG / DAIRY MEALS

Quiche & salad

Omelette filled with vegetables or served with a side of salad or veggies.

Frittata with a side salad

FISH MEALS

Grilled fish with steamed vegetables or salad

Homemade fish cakes with stir fried or steamed veggies and mash or potato salad

Kedgeree (rice, haddock, boiled egg and veggies)

Seafood risotto

Fish bake

Tuna pasta

CHICKEN MEALS

Chicken stir-fry with brown rice

Chicken a-la-king

Grilled chicken served with veggies. Try grilled sweet potato and butternut wedges.

Roast chicken, potato & veggies
 Chicken kebabs served on savoury brown rice
 Chicken curry (mild)

MEAT MEALS

Beef or lamb stew
 Cottage pie
 Spaghetti bolognese
 Home-made meat balls with a tomato and veggie sauce served with spaghetti

MISCELLANEOUS

Something we often do is make snack platters that consist of a variety of foods such as carrot and cucumber sticks, apple pieces, boiled eggs sliced in half with a smear of mayo or a few cubes of cheese. You could include baby tomatoes, mange tout, baby corn, and a dip – whatever you have. Be creative. Most kids tend to like simple, snack type meals.

Reserve pizzas, burgers and convenience foods for treat nights and even then, a few simple changes or additions can improve their nutritional value. For example, you could make your own burger patties and add lots of finely grated veggies that would barely be noticed once it's in a bun. You could also give a freshly extracted vegetable juice 20 – 30 minutes prior to a meal to “top your child up” with extra nutrients and aid digestion.

DRINKS

Clean water should be the main form of liquid consumed and it is a good idea to get your children drinking water from a young age. It is advisable to filter or purify municipal water to clean it of chemicals and other pollutants. Natural fruit juices, although healthier than synthetic juices, are rich in concentrated sugars and thus can impact blood sugar levels negatively. If you do give fruit juices from time to time, dilute them 50/50 with water. Synthetic juices such cordials and squashes should absolutely be avoided due to the additives they contain. There is nothing natural about these juices and they offer no health giving properties at all – in fact they detract from good health.

Freshly extracted vegetable juices are full of nourishing nutrients and can be very tasty. Try carrot, beetroot, cucumber, a few kale leaves and an apple or two. This is a good basic juice to start your children on and provides wonderful nutrition. Avoid pasteurized milk. Rather give raw, organic milk but not every day. Even raw, natural dairy should not be eaten daily. Those with mucous problems or allergies should avoid or minimize dairy intake.

Rooibos tea is the best hot drink for kids. Use honey (a small amount), stevia or xylitol for sweetening. Avoid sugar as far as possible. Try and avoid using milk. An adventurous child may enjoy a squeeze of lemon. You can also give iced rooibos tea on a hot day. In general avoid all the synthetic concoctions that involve a long list of ingredients!

FOOD SELECTION GUIDELINES

- **Choose natural, organic and free range foods wherever possible.** Meat and dairy from conventionally raised animals contain antibiotics, hormones and pesticides. Non-organic fruits and vegetables contain pesticide residues which we in turn ingest. All of these are toxic and harmful to health. If you cannot buy organic foods, cut down your consumption of these products and choose produce that generally contains the least pesticides. As mentioned previously, visit the website of the Environmental Working Group - www.ewg.org and download their shoppers guide. To clean and disinfect vegetables, spray them with vinegar and then 3% hydrogen peroxide and rinse, or wash in water with 4 tablespoons of salt and lemon juice and rinse.
- **By making some of your foods from scratch** using quality ingredients, you naturally reduce the amount of trans-fatty acids, sugar and additives in your family's diet. For example, you can make your own mayonnaise using natural, cold pressed oils. Bake your own biscuits, breads and muffins – this eliminates the need for preservatives and you can replace unhealthy ingredients with healthier alternatives eg. honey instead of sugar, butter instead of margarine and wholegrain flours as opposed to white flour. This way you can also eliminate wheat and gluten. Mass produced shop bought breads contain the preservative calcium propionate which actually inhibits the absorption of calcium in the body.
- Try and **avoid using processed deli meats and sausages** such as polony, ham, salami, vienna sausages, pork sausages and bacon. Nitrites and nitrates are used to preserve these meats and they form nitrosamines which are carcinogenic. It is well worth eliminating or drastically limiting the consumption of these foods. When you eat them, take some vitamin C to neutralize the nitrosamines. It is better to choose meats and sausages made from wild animals such as venison, ostrich and springbok.
- **Avoid margarine and refined vegetable oils** (cheap sunflower and canola oils – the kind that you buy for around R 10.00 in the supermarket) which are refined, processed foods containing damaged fats from the heating process. Butter is better because it is natural. It is also rich in vitamins A, E, K, the mineral selenium and other nutrients. Our ancestors used butter and they weren't afflicted with heart disease and cancer. In fact these two diseases have increased in prevalence since margarine and refined oils have been in use. Use cold pressed olive oil, butter, coconut oil and sesame oil instead. Coconut oil is the best fat for cooking and baking. Butter is next best and sesame oil and grapeseed oil are also very stable and particularly well suited to stir frying. Use olive oil for salad dressings. Contrary to popular opinion, olive oil should not be used for cooking at high temperatures as it is prone to damage.

Olive oil is great for using as a salad dressing and adding to cooked food for its beneficial omega 9 fatty acid content and plant sterols.

The fear of fat, especially saturated fat and the replacement with refined vegetable oil products has led us to poor health. Our bodies and brains need good fats, not processed, heated fats. Our bodies produce cholesterol naturally. If cholesterol were so bad for us, why would we produce it? Similarly, mother's breast milk is 50% fat and rich in essential fatty acids and cholesterol. Furthermore, the human brain is 60% fat and contains more cholesterol than any other organ in the body! Cholesterol becomes a problem only when it is oxidized – good reason to up your antioxidant intake. Ditch the fake fats and include the healthy, natural fats in a balanced fashion for good brain and body health.

- **Check food labels.** This is the best way to determine the suitability of a food. Generally, the less ingredients the better; the more ingredients, the more artificial a food.
- **Clean water is the best liquid to drink to ensure hydration and efficient removal of body wastes.** Avoid all synthetic juices, full strength natural fruit juices (enjoy occasionally diluted 50/50 with water), flavoured soda's, an excess of coffee or regular tea and excess alcohol. Drink herbal teas, lemon water or even better make yourself some old fashioned, healthful drinks such as kombucha or beet kvass.

TIPS TO ENSURE GOOD DIGESTION

- Always **have something raw before cooked meals to aid digestion** and prevent the loss of white blood cells. Nibble on a carrot, a piece of cucumber or some sprouts. A super healthy option is to make a raw vegetable juice about 30 – 45 minutes before a meal. On busy evenings when we do something simple like an omelette, then we juice carrots, cucumber, beetroot and an apple or two (for sweetness) to “build” in the daily quota of vegetables and of course this is excellent for digestion.
- **Chew your food well.** This is essential for good digestion and a very good habit to cultivate in your children. Digestion starts in the mouth when the action of chewing activates the digestive enzymes in the saliva. For thorough and complete digestion of foods and absorption of their nutrients, the first stage of digestion is very important.
- It is advisable to **have vegetable-only dinners between dinners that involve flesh.** So if you have meat at a braai on Sunday, then on Monday night have a vegetable risotto, for example. Cooked flesh foods are difficult for the body to digest and are only eliminated as much as 3 days after eating. Your body can do with all the help it

can get to eliminate these foods so help it out by eating lightly for a few meals afterwards.

- **Eat meals in a calm, happy and relaxed environment.** Try and avoid the morning madness by allowing sufficient time for breakfast to be eaten. Don't eat on the run or when angry or stressed. Rather have some water and focus on your breathing to keep you calm.

FOOD PREPARATION TIPS FOR GRAINS & LEGUMES

All grains contain phytic acid in the outer layer or bran. The phytic acid binds with calcium, magnesium, copper, iron and especially zinc in the intestinal tract and prevents their absorption. Our ancestors knew that soaking, fermenting and sprouting grains was essential to neutralize the phytic acid and improve their nutritional benefits. Thus all grains should be soaked in water with a little salt for a minimum of 12 hours, but ideally up to 24 hours before cooking. Sprouting grains further enhances their digestibility and increases their nutrient content. Legumes, nuts and to a lesser degree, seeds, also contain phytic acid and enzyme inhibitors that need to be neutralized by soaking, fermenting or sprouting. This is one of the reasons why I don't recommend muesli for breakfast. The untreated grains, nuts and seeds make muesli a very indigestible food. Soaking and cooking grains in the form of porridge is a far more healthful practice.

Nuts are best soaked and used in smoothies. Small seeds such as sesame and flaxseed do not present a great problem and small amounts can be ground up in a coffee grinder and added to porridges and smoothies.

SUPPLEMENTATION

A century ago, our soils were richer in nutrients and thus our foods were more nutrient-dense. There was also less pollution and exposure to toxins. Our ancestors drank mineral-rich water and ate pure, unadulterated foods. Stress for them was mostly short lived, not an everyday thing. They exercised daily as they tended to their vegetable garden or farm, hunted for a fresh kill or walked to the local village for supplies. A very different picture to what it is today for the majority of the world's population!

Modern man could do with some nutritional assistance from supplements but they need to be used appropriately. First and foremost, the diet must be attended to and corrected. Then, a supplement plan should be implemented based on the diet to fill in the gaps in a complementary manner. Supplements should as far as possible be in a whole food form as the body can make better use of them. Supplements should not be used to make up for a poor diet!

Depending on the diet, most children could do with a supplement regime that includes:

- **Omega 3 essential fatty acids** (from **fish oil** or **flaxseed oil**) unless the diet is rich in fatty fish, flaxseeds or chia seeds. Children especially need DHA for their developing brains. There are varying opinions on the effectiveness of flaxseed oil for supplying sufficient EPA & DHA. I use both flaxseed and fish oil. I also believe that you can overdo fish oils – it's not always a case of more is better. High doses of fish oil should be used with caution unless there is a known deficiency. If fatty fish like mackerel, sardines, salmon or tuna (fresh – as the tinned tuna contains very little fatty acids) are eaten 2 – 3 times per week then omega 3 supplements may not be needed.
- **Omega 6 fatty acids** in the form of **GLA** (Gamma-Linolenic acid) from evening primrose oil or borage oil. I prefer evening primrose oil as it said to be more effective. You could use a formula that combines both omega 3 & 6.
- A **multivitamin** in the form of a whole food concentrate such as **Spirulina** or **Barleygreen**. Alternatively, Bio-Strath, a swiss formulated product that is rich in a wide variety of vitamins, minerals and amino acids. Bio-Strath does include a small amount of gluten from the barley malt extract. This may present a problem for those who are very sensitive to gluten. A regular multivitamin free of flavourants and colourants is the next best option.
- **Cod liver oil**, especially in the winter months for the supply of vitamins A & D, which are often in surprisingly short supply.
- **Vitamin C** from food sources and powdered super food concentrates are best. However, due to our increased demands for vitamin C, the diet may not supply enough. The super food powders are an expensive option and thus the next option is to consider supplementing with vitamin C, ideally in powdered form as Calcium Ascorbate (the buffered form) or Ascorbic Acid. The latter is said to be a more effective form but the buffered form is better suited for those who have problems associated with acidity-related conditions. The powdered versions are better value for money, more effective and can conveniently be added to foods and drinks without the child even noticing. Be careful of chewable vitamin C as it can be damaging to the teeth.

Vitamin C should always be teamed up with Bioflavanoids for they work synergistically. In nature, they occur together for good reason. Add Grapeseed Extract to the mix, and you have a powerful antioxidant and detoxification duo. If you use the plain powder with no added Bioflavanoids, then ensure the diet is high in Bioflavanoids from fruit.

How to use powdered vitamin C: Add to smoothies, rooibos tea, lemon tea or into foods. You could also add to homemade frozen ice lollies. You need only a small amount as ¼ tsp = 1000mg. A sprinkling here and there is sufficient. You don't want to overdo vitamin C or any nutrient for that matter. If the diet is rich in fruits and

vegetables then you may not need supplementation on a daily basis, but only when the kids are sick.

- **Probiotics** are essential to good overall health as a depletion of our friendly flora (good bacteria) leaves us open to parasite infections, poor immune function, poor digestion and toxicity. A diet of refined and junk foods and overuse of antibiotics deplete the friendly flora. A poor diet feeds and grows the bad parasite population whilst a good diet feeds the good bacteria that produce vitamins in the gut, ensure good digestion and elimination and a strong immune system. 70% of the immune system resides in the gut so ensuring a healthy gut is key to boosting the immune system and preventing illness.
- **Smart nutrients** such as DMAE, phosphatidyl choline, pantothenic acid and pyroglutamate are currently being used with good results in the treatment of hyperactivity, learning and behavioural problems and speech and reading difficulties. You would need to supplement these under the guidance of an experienced health professional.

This guide is intended to assist you in making healthy food choices for your children and to consider other environmental and lifestyle factors that play a pivotal role in health. The journey to good health begins with taking responsibility for your choices and actions and making yourself knowledgeable on what constitutes a healthy diet and lifestyle. It is well worth the effort and you and your family will be rewarded with vitality, energy and strong immunity.
