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ver since the seafarers developed scurvy from lack of Vitamin C we have known about the effect of nutrient defi ciencies. In developing countries there are still many diseases that are the result of starvation and poor nutrition. In the developed countries most people nowadays have access to an abundance of foods and yet the occurrence of many diseases and syndromes are increasing sharply. Could this still be related to diet?

The Western diet offers plenty of calories and the fast rising number of people with obesity is testimony to this, so is it possible that our cells are starving in the midst of plenty? Even compared to 50 years ago the occurrence of some brain/mind disorders such as developmental delay, autism, ADHD, depression, Parkinson's and Alzheimer's disease has risen dramatically. Is there a link between these disorders?

In the USA April was National Autism Awareness Month due to the sharp increase in the number of children with autism over the past 50 years. Research has shown that diet plays an important role in this increase of diseases of the brain and mind, so what aspects of the modern diet are to blame?

Food in the 21st Century is prepared very differently compared with 50 years ago and prepackaged foods and take-aways or fast foods are now a regular part of the diet of many people. These foods are generally calorie dense and nutrient poor. In addition they often contain pesticides as well as additives such as food colourings, preservatives and flavour enhancers, many of which are neurotoxins. An example is the flavour enhancer monosodium glutamate (MSG or flavour enhancer # 621), which is often used in Chinese food, but also in chips, crisps, soups and sauces. MSG has shown to be associated with hyperactivity, learning disabilities, even autism and many people suffer other allergic reactions to it.

Research has also shown that autism, ADHD and Alzheimer's disease are all characterised by an increase

of infl ammatory processes in the brain. Where there is infl ammation, there are free radicals. Free radicals are highly reactive particles that can shoot holes into your cell membranes or, worse, into the DNA itself (DNA is the molecule that carries our genetic information). They can do a great deal of damage to the surrounding cells in the area of infl ammation unless they are stopped and made harmless by antioxidants. Our body produces some antioxidants but needs to get others from the diet. Fresh fruit and vegetables generally contain the highest amount of antioxidants whereas prepackaged and fast foods contain the lowest.

Research has also shown that children with autism or ADHD, and adults with Alzheimer's disease, often have low folate levels. The word folate comes from foliage referring to leaf, so green and leafy vegetables such as spinach, silver beet, bok choy and broccoli are high in folate.

Symptoms of a folate deficiency can be confusion and memory loss. Neural tube defects such as spina bifida have also been linked to a lack of folate,

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However, even if your diet contains enough folate, you can still develop a folate deficiency, if your body cannot properly absorb folate. For example, alcohol and smoking decrease the absortion of folate.

Another change in the past 50 years has been the increase in the occurrence of food sensitivities. These sensitivities (often to gluten and/or dairy products) cause an irritable or inflamed bowel, which in turn leads to poor digestion and mal-absorption of nutrients.

If you intend to get pregnant, check your diet to identify and eliminate these food sensitivities and to make sure your diet is well balanced and contains a wide variety of nutrients and antioxidants.

As far as Alzheimer's disease is concerned, prevention is better than cure because there is no cure, so whatever age group you are in, make a point of eating fresh fruits and vegetables several times a day.

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