

# The Hypoglycemic Health Association

# NEWSLETTER

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The NEWSLETTER of the Hypoglycemic Health Association is distributed to members of the Association and to Health Professionals with an interest in nutritional medicine and clinical ecology.



Another year has gone by and again it is Christmas. The Association wishes all members and health professionals a Merry Christmas and Happy New Year! This is the last Newsletter in 1995 and subscription fees are due for many members of the Association. (Note expiry date top right hand corner of address label) Our membership fees have not changed despite increases in costs. These are \$15 pa per family or \$10 pa for pensioners and students. Our survival depends on finance provided by the membership. By supporting this Association you help in educating the public to appreciate the importance of clinical nutrition and ecology, and to encourage doctors to use modern natural means to restore and promote health among the general population. Tremendous progress has been made in understanding degenerate diseases such as chronic fatigue syndrome, hypoglycemic syndrome, heart diseases, arthritis, mental illness and cancers and so on. Most of these can be prevented and treated through a change in life style and nutrition, and even attitudes. Although drug therapy will probably remain a major component in medical practice, more and more patients are becoming aware of its limitations and even dangers. Medical miracle cures in our media still revolve around new chemical inventions by pharmaceutical companies. However, more and more people are turning to our roots on earth, our forests as it were, where nature has ensured our survival for millions of years. Our association helps us find a safe place in a sustainable environment.

Our Next Public Meeting will be at 2 PM  
on Saturday, the 2 December 1995  
at the YWCA,  
2 Wentworth Ave, Sydney and  
our guest speaker is

**Dr Joan Dale**  
who will be speaking  
on the subject of

***“Stress and the immune system”***

**Dr Joan Dale**, cancer therapist, graduated in medicine at Sydney University and went on to study psycho-immunology at the University of California, Berkeley, obtaining a PhD. She has been in medical practice over 20 years and has done extensive research in cancer. She is a member of the Cancer Control Society, USA, where she periodically lectures on that platform. She recently returned from a European lecture tour in France, Belgium, Holland and the UK.

## CHRISTMAS PARTY

Our next meeting on Saturday the 2nd December 1995 will start one hour earlier than usual (1 pm) to celebrate our Super Christmas Party. Members and friends are invited. Please bring along a plate of sugar-free foods.

**Presents:** The Committee asks every one to participate in the present Lucky Dip. Bring a wrapped present worth \$5 with you and mark it "male" or "female"; but even if you don't, you won't be disappointed. There will be presents for kids, and they are welcome.

The Association would like to thank the following naturopaths  
**Mim BeimND**  
of DARLINGHURST and  
**Leonie McMahon**  
of KILLARA  
for their generous donations to the Association.

### Books for sale at the meeting

Jur Plesman: **GETTING OFF THE HOOK**

This book is also available in most public libraries

### Sue Litchfield: **SUE'S COOKBOOK**

Dr George Samra's book

### **The Hypoglycemic Connection**

(now out of print) is also available in public libraries.

**Contributions of articles** by members and practitioners are very welcome. If you would like to contribute an article to this Newsletter, please contact the Editor.

### *The Newcastle branch of the Association*

are still meeting with the assistance of Bev Cook. They meet on the last Saturday of each month beginning 1.30 pm to 3.30 pm at the Hillsborough Primary School. Enter the school from the Waratah Avenue. For further information ring Mrs. Bev Cook at 049-59-4369.

### *Organise local meetings*

If any member would like to organise meetings in their local area or meet other members, we can help by advertising your name and phone number in this Newsletter.

### *Entrance fee at meetings*

Because of increase in costs the Committee has decided to charge an entrance fee of \$2 per person or \$3 per family at our public meetings.

### *Donations for raffle*

One way of increasing our income is by way of raffles. If any member has anything to donate towards the raffle, please contact Dr George Samra's surgery at 19 Princes Highway, Kogarah, Phone 588-5290.

**Lyn Grady** won the Lucky Door Prize and

### **NAME OF THE ASSOCIATION**

This is the last chance to write in for suggestions for the new name of the Association. It is intended to vote on the final name at the next Annual General Meeting in March 1996.

Here are some new names for our Association suggested by members;  
By Mrs Helen Wiggett

- 1) Advancement of Better Health Association (ABHA)
- 2) Advancement of Nutritional Medicine Association (ANMA)
- 3) Advancement of Total Health Association (ATHA)

By Steve Duff

4) Holistic Health Association

By Sue Litchfield

5) THAT Society (The Healthy Approach To Society)

**Deborah Moran** won the Raffle Prize at our last public meeting on 2 September 1995.

### **Committee members**

The Association is in need of your support and ask members to help out with sending the Newsletter to our members. We also need committee members and if you are interested please contact Dr George Samra's surgery at **553-0084**.

**Any opinion expressed in this Newsletter does not necessarily reflect the views of the Association.**

# CHILDHOOD NUTRITION

by *Joanna Harnett ND*

from a lecture given at

the Hypoglycemic Health Association on 2 September 1995

### **Focus on Attention Deficit and Hyperactivity**

I WOULD LIKE to start off by congratulating this Society for setting up an organisation to fulfil a desperate need in the health industry. There is a great demand for a support group such as yours which provides educational opportunities in the area of health. Mainstream society seems to suggest that matters of health is far too complicated for ordinary people and that this requires "experts" who alone can safeguard our health. This is not true. As we go through some of the technical details today it will be clear that the action you can take are really quite simple.

Today I am talking specifically about children with Attention Deficit Disorders (ADD), and hyperactivity, but of course the material presented can also apply to adults. There is also great number of adults in our society suffering from ADD and hyperactivity at a subclinical level, by which I mean that they do not necessarily manifest all the symptoms of the full-blown syndrome. Often when they are ignored, symptoms become worse and very often we see young people finish up with a full blown syndrome in gaols and on psychologists' chairs. It is usually assumed that it is all

in their mind.

However the mind is fed by what goes into our mouth, as well as our spirit. Today I would like to concentrate on what goes into the mouth.

The bible mentions: "Train a child in the way it should go" and it is our responsibility as adults to train our children in the way they should go. Most of us are probably here because of health problems and we don't want our children to have to take the same difficult path of learning.

The time to start is obviously preconceptional, in utero (inside the womb) and early nutrition.

Any one who has been suffering from hypoglycemia would be well aware that they have to take the responsibility of treatment into their own hands with the guidance of only a handful of practitioners in this area. Fortunately, the numbers of doctors are increasing such as Dr George Samra, the patron of your association. We hope more will join. A lot can be done by giving parents, guardians and caregivers a basic understanding of nutritional aspects of health, and this will take the pressure off the overloaded specialists.

### **Classification of ADD and symptoms**

Attention Deficit Disorders (ADD) can be divided into three groups; 1) ADD with hyperactivity, 2) ADD without hyperactivity and 3) what is called residual ADD, usually present in people over the age of eighteen.

As I read out the list of symptoms of ADD one will be struck by the correlation with those associated with hypoglycemia. There is perceptual motor-impairment, emotional lability (meaning rapid changes in emotions), general coordination deficit, short term attention span, destructive behaviour, lack of perseverance, failure to finish things, poor concentration, not listening, impulsiveness, abrupt shift of activity, poor organizing skills, disorders of memory, thinking and specific learning disabilities, disorders of speech and hearing and EMG (electromyogram) irregularity.

### **Incidence and causes**

Of a group of hyperactive children it was found that 86 per cent had a high blood count of white cells, suggesting the body is constantly fighting something<sup>1</sup>. It is estimated that in America between 3 and 10 per cent of school children have Hyperactive ADD. Here we will concentrate on Hyperactive ADD. When speaking of the causes of hyperactivity, the easiest for parents to deal with are food sensitivities, especially artificial colours in food, and increase of phosphate intake, mainly from Coca Cola, processed foods, cheeses, instant puddings, processed meats and so forth. You have only to look in the supermarkets where we see well-meaning and loving mothers giving their children slices of Devon, cut cakes all full with phosphates. Ice-cream toppings are also phosphate rich. Sugar ingestion is not only associated with hypoglycemia but also with hyperactivity. The artificial flavours and preservatives that come along with sugars may also cause hyperactivity.

However, not only artificial colours and preservatives can cause reactions within the human body. Naturally occurring sodium or calcium phosphates, used as preservatives, can cause adverse reactions. Nevertheless, the artificial ones seem to be more dangerous. People may be misled when they read on the packaging that no artificial colourings and preservatives are used. Just recently, I came across an empty bag of chips, which read that no artificial colouring or preservatives were used. However on the back of it was written

621 which is MSG (Monosodium Glutamate). True, MSG is a natural flavour enhancer, thus they could claim that the message on the front was technically correct. It seems there is a lot of deception in the food industry. It is important to read labels and become familiar with them. If it has a number on it, don't eat it unless you know what the number means.

### **Preservatives can affect enzymes and absorption**

The artificial colours and preservatives affect a number of detoxifying enzymes in the body and thus may cause a state of toxicity. Food sensitivities that provoke hyperactivity may be caused by the entry of partially digested food particles into the bloodstream. To put it simply, a person with a food sensitivity, has an intestinal wall lacking the necessary enzymes to break down the food particles properly. Thus when these enter the bloodstream, the body registers foreign proteins and sets up a sensitizing reaction. This will scramble the communication centres in the brain. This affects behaviour as the neuronal system is not functioning as it should. The word allergy is overused and misleading, but a true allergy, such as in an anaphylactic shock<sup>2</sup> and other dramatic reactions, is not seen very often. What we are looking at is our bodies becoming sensitive to substances such as sugars, preservatives and common staple food groups.

### **Experimental study - Dietary influences in ADD**

Hyperactive children aged 8-13 years received either a high carbohydrate breakfast (2 slices of toast with butter), a high protein breakfast (2 eggs scrambled in butter) or no breakfast. On different days, children in each group also received a non-nutritive orange drink sweetened with aspartame or sucrose. Observers then tested their ability to recognise when letters and forms were presented one at a time occurred twice in a row. Children who received the high carbohydrate breakfast with a sucrose drink did significantly worse than controls while those eating the high protein meal did substantially better than any other group.<sup>3</sup>

### **Fast metabolisers**

Compared to matched controls with a similar protein intake, hyperkinetic (overactive) boys aged 8-10 generally had a higher nitrogen excretion. Also hyperkinesis (hyperactivity) correlated inversely with height and weight. The tendency to metabolise (process) food rapidly may explain increased urea manufacturing and excretion. Also, exercise increases urea synthesis and amino acid oxidation, so hyperactivity may do the same.<sup>4</sup>

### **Sugar and ADD**

1) Experimental double blind study - Sugar consumption was tabulated for a group of hyperactive children and a control group.

Trained observers, blind to the purpose of the study, evaluated the children's behaviour by categories by viewing a video tape made through a one-way mirror. Sugar consumption was found to be significantly correlated with restlessness and destructive aggressive behaviour.<sup>5</sup>

2) In a study of 28 hyperactive children aged 4-7 the reported amount of sugar products consumed and the ratio of sugar products to nutritional foods were significantly associated with the amount of destructive-aggressive and restless behaviours observed during free play.

3) In another study 14 children were given a dose of sugar equivalent to 2 frosted cupcakes for breakfast, blood adrenaline levels rose to 10 times their baseline levels. No such dramatic rise occurred in adults similarly tested, suggesting that children may be prone to such symptoms as anxiety, irritability and difficulty in concentrating following a sugar meal.<sup>6</sup>

### **Always holes in clinical trials**

There are many cross studies dealing with the relationship of sugar and ADD, which if they were presented today, would leave you entirely confused as to the question whether sugar and preservatives cause ADD. Like with all scientific studies you can prove a hypothesis one way or the other depending on what group you use. There are always holes in clinical trials. My conclusion is that it is a cumulative and a multi-factorial problem, so that it is difficult to isolate one factor being responsible for ADD. However, sugar in excess has been associated with numerous clinical disorders and ADD is no exception.

### **Role of vitamins and minerals**

Animals with a low B6 (Pyridoxine), high copper, low magnesium intake all display hyperactive behaviour. It is interesting to note that in Australia and New Zealand we have the lowest level of calcium and magnesium in our food chain due to low levels in our soil. We also have the highest intake of dairy products in the world and this may well be related to the highest rate of asthma in Australia. We have to ask ourselves if we consume the highest rate of dairy products from which we derive our calcium and magnesium, why do we have such high rates of associated diseases flowing from calcium and magnesium deficiencies. Calcium and magnesium is responsible for the relaxation of the muscular system. It is not surprising that there is a marked deficiency of these minerals in hyperactive children.

### **Milk and calcium absorption**

Many practitioners, including myself, believe that sensitivity to milk products does not allow us to absorb these minerals. This may be due to the relative excess of phosphorus in milk, compared to calcium and magnesium. It is interesting to note that we started to consume milk in large quantities in the 1930 as a

result of marketing and improvements in transportation. Prior to this time there is little evidence of calcium related disorders. Ninety per cent of the world population hardly consume milk, and yet osteoporosis is a serious disease in Australia. Asians and Africans are known to have few skeletal problems. Of course, this needs to be considered with other aspects of their diet and lifestyle. They do use buffalo milk as an embellishment, but this has not been pasteurized as in the West.

Cow's milk has been shown to be implicated in 74 per cent of allergic skin reactions, 89 per cent of asthma and hay fever. However, the term "implicated" does not mean that there is hard and fast evidence that it causes these disorders in children.

Alternative sources of calcium are: dried fruits, sesame seeds, potatoes, green veges, mushrooms, cashews and almonds. Cows milk should be used as an embellishment rather than a major source of calcium and protein.

#### ***Vitamin B6 and serotonin***

In one study 100 children were given B-complex vitamins, the main one being B6, and it was found that 15 per cent responded to B6, and 8 per cent to the thiamine (B1). In cross over study further down the track a further 55 per cent responded to B6. The reason is that B6 is a very important co-enzyme in the conversion of tryptophan to serotonin in our body. This chemical substance helps us to relax, keeps us calm, and aids us in concentrating on the task at hand.

#### ***Iron deficiency and wheat consumption***

The most common deficiency in Australia is iron. From the advertisements from the Meat Board we are told that its deficiency leads to anaemia, fatigue among women and babies are not thriving. We should be getting plenty of iron from fruits, dried fruits, vegetables (beans and lentils), nuts, seeds, grains, fish and eggs. You don't need a lot of haem iron from meat in the diet, although lean meat is not a bad food source. I believe that the absorption of iron is hindered by the excessive consumption of wheat due to its phytate content.

The Australian Council for Responsible Nutrition claims on the basis of many studies that 80 per cent of people suffering from asthma, auto-immune disease, arthritis, ADD, learning disabilities and so forth, come from wheat and dairy sensitivities. As we mentioned before the mechanism is that we absorb partially digested foreign proteins into the bloodstream. The reaction to foods in the membranes of the guts interferes with the absorption of iron, which in turn leads to anaemia. It is not as radical and dramatic as in coeliac disease<sup>7</sup>, however it is more insidious, because it creeps up over time. We are seeing good responses among children with good iron supplements of the pre-digested type.

The problem with wheat is its phytate content, which can form insoluble salts not

only with calcium, but also zinc. Zinc is a very important co-enzyme in many biochemical reactions in the brain. A lack of zinc reduces one's sense of taste and smell, and may show up as white spots on finger-nails. Zinc deficiency lowers one's immune system, contributing to the susceptibility of such illnesses as herpes<sup>8</sup>. In a study it was found that when a group of ten male children were given a orange juice with tartrazine - a food colouring agent - the zinc content of their urine was markedly increased, indicating that tartrazine bind with zinc which is then excreted from the body. The following day the children were found to be hyperactive and showed associated signs such as attention deficit, learning disabilities, and some developed eczema. One child became asthmatic.<sup>9</sup>

#### ***Essential fatty acids***

It is curious that Australians do not consume much fish, although we are surrounded with an abundant resource. A lot of children suffering from ADD have been found to have low levels of essential fatty acids (EFAs). Ninety-five per cent of people suffering from asthma and eczema have a reduction in their symptoms with the supplementation of EFAs, derived from flaxseed<sup>10</sup> oil. Thus if you have problems with fish derived EFAs try flaxseed oil.

The question is in the face of all these studies, what can we do to help our children.

Firstly, love your children. Mothers and fathers are victims of mass media and it is important to be motivated to grab hold of any information, preferably from reputable organisations such as this Association. We generally promote a wheat-free, dairy-reduced diet for reasons already specified. If you look at the amount of illness here in Australia and the amount of dairy and wheat consumed in the diet, it is not surprising to see a high level of food sensitivities and allergies. We don't have a wide enough variety of fruit in our diet. Very often by eliminating the two main offenders - wheat and dairy - for a period and then re-introducing them in small amounts, most people will be able to tolerate them better.

Most people, upon hearing that they cannot have pasta, cakes, wheat and bread, are often lost as to what to eat. Looking at alternative grains such as rice, rye, millet, corn and others, we realize that we have indeed a broad range from which we can choose our nutritional needs. We should be exposing our children to these alternatives and I believe children should not be given wheat products, unless they are at least ten months old. It is then that they would have the essential enzymes to digest these offending foods.

Most foods ending in "ose" are sugars, that most hypoglycemics are aware of. These are maltose, dextrose, glucose, lactose and sucrose and along with the dairy-, wheat- and sugar-free diet should help to prevent the

development of ADD. Sugar is not necessarily a bad food source as the brain depends on glucose for its energy, but the trouble starts with excessive consumption. It is better to use complex carbohydrates, more quality protein, reduced animal fat, more vegetable fats, perhaps in the form of nuts.

#### ***Nuts and speech therapy***

Speaking of nuts, the other day I was talking to a speech therapist who pointed out that we do not teach our children to chew. This appears to be related to the development of speech. The therapist claims that the act of chewing releases certain chemicals in parts of the brain, which helps the development of the speech process. Also, it is believed that children should not be drinking out of bottles by the age of three as this would hinder the stimulation of facial muscles.

We mash up our kids' foods for fear that they will choke. Yet it is important to teach our children to chew and we should be giving them lumpier foods by the age of eight months. Of course, I am aware that some authorities advise that children should not be fed any nuts before the age of six. What I am talking about is to make the food a little lumpier, but not to the extent that it could obstruct the airways. This problem may arise as well from a variety of other foods; fish-bones, skins of chicken and even apples. Most parents would use common sense in preventing choking.

#### ***The importance of the family dinner table***

These problems can also be reduced by making sure that kids do not run around whilst they are eating. We have an obligation to create a relaxed environment while children eat, in the same way as adults enjoy an evening meal under candle-light with gentle music. We can introduce this to our children, when meal-time is a relaxed time. So the evening meal should be around the table and be "family-time".

#### ***Chemical sensitivities***

Food sensitivities is often more to pesticides, than to chemicals used on the foods. With wheat the increased sensitivity may be due to the chemical engineering. By buying organic foods, which are however more expensive, you are limiting the amount of chemicals or pesticides that your child is getting. The toxins inhaled through the air, from the environment and taken from the water-supply have less chance of causing a disease state when the diet is chemical free due to the reduction in total toxic load.

Australia is far behind in legislation in protecting us against chemical toxicity. In England a company, in the first case of its kind, was sued for the death of a child while consuming a bag of lollies that contained tartrazine. She became hyperactive and ran suddenly across the road. She was killed by a car. The Court was able to compensate the parents, because it believed they had a valid

case. Tartrazine was taken off the market as a preservative in England, but in Australia you can go to any news-agent and buy as much as you like in drinks. I suggest that every parent has a food decoder to find out what chemicals are used in foods. It does not take long to get to know the numbers and what they do.

#### **Sugar in drinks and television**

It is amazing what children are drinking. A can of Fanta contains 20 teaspoons of sugar, a can of Coke 14, and lemonade contains 12 teaspoons of sugar. That is a lot of sugar. Fruit juices should always be diluted, at least in the ratio of one to three. Potato chips contain preservatives and is hard to handle by young livers, not to mention the salt.

We have to be careful about "health-bars", they contain often a lot of sugar. We should also minimize television exposure not only for psychological reasons, but images are a series of dots which can hypnotize children. Television advertising to children makes it harder for parents to say: "No, you cannot have". Eating before a television set seriously interferes with the ingestion and digestion of foods.

So the very simple conclusion as to what you feed your children are: fruits, vegetables, unadulterated grains, nuts (mashed when under the age of six), lean portions of proteins such as meat, chicken, and above all "love them!".

#### **References**

- 1) Osiecki, Henry (1990), **The Physicians handbook of clinical nutrition**, Biconcepts Pub, Kelvin Grove QLD
- 2) An anaphylactic shock is a severe and sometimes fatal reaction to a sensitizing substance, such as drugs, vaccine, serum extract, insect venom or chemical. Symptoms may appear within seconds to exposure and are commonly marked by respiratory distress and collapse of blood vessels.
- 3) Connors, CK (1987) George Washington University School of Medicine, reported in **New Medical Science**, Dec 1987
- 4) Stein, TP (1984) Nitrogen metabolism in hyperkinetic young males, **American Journal of Clinical Nutrition**, 39:520-24
- 5) Prinz, RJ (1981) **Journal of Behavioral Ecology** 2:1
- 6) Tamborlane, WV (Prof of Pediatrics, Yale School of Medicine), Jone TM (Visiting Scientist from Australia), reported in **The New York Times**, 1990
- 7) **Coeliac disease** (also called coeliac sprue, non-tropical sprue, gluten-induced enteropathy) is an inborn error of metabolism characterized by the inability to hydrolyze (split) peptides contained in gluten. Peptides (derived from the word digestion) are compounds consisting of two or more amino acids (building blocks of proteins) joined by peptide bonds. Gluten is the insoluble protein constituent of wheat and other grains. Coeliac disease affects children and adults, who suffer from abdominal distension, muscle wasting. Often there is a secondary lactose (milk sugar) intolerance. Stools are foul-smelling that float on water because of the high fat content. Most patient respond well to high protein, high calorie, gluten-free diet. Rice and corn are good substitutes for wheat and diet should be supplemented with vitamins and minerals.
- 8) Herpes Simplex is caused by a viral infection, which may be acquired at any age. There are two types. Type 1 gives rise to most infections, cold sores or may cause a mild form of meningitis, but sometime more seriously encephalitis (brain inflammation). Herpes Zoster caused by the varicella-zoster virus also responsible for chickenpox. Like Herpes Simplex the virus persists in nerve cells of ganglions. The attack is preceded by pain and usually confined to an area supplied by one nerve root. Treatment for both Herpes is by means of application of creams and medications. The pain is often difficult to treat. Naturopaths often try to help patients with special amino acids such as lysine, that have been reported as being of benefit.
- 9) Ward (1990), The influence of the chemical additive tartrazine on the zinc status of hyperactive children, **J Nutr. Med.**, 1:51-57.
- 10) Also called linseed oil.

# **THE RHEUMATOID ARTHRITIS/ SCHIZOPHRENIA CONNECTION:**

## **Improvements of both conditions with nutritional intervention**

*By Dr Chris M Reading, B.Sc., Dip.Ag.Sci., MB, BS, F.R.A.N.Z.C.P. in conjunction with Jean Sulima, SOMA<sup>1</sup>  
(Reproduced with permission from SOMA NEWSLETTER of Jan 1995)*

IT HAS LONG BEEN KNOWN that schizophrenia and rheumatoid arthritis are mutually exclusive, says Dr Chris Reading. This means that one person will not suffer from both condition. However, there is a family connection between the two conditions in that it is common to see a mother with rheumatoid arthritis who has a son or daughter with schizophrenia.

In both rheumatoid arthritis and schizophrenia there are enzyme blockages which result in failure to convert the amino acid tryptophan to vitamin B3 (Niacin). If the blockage occurs higher up the chain, the result is rheumatoid arthritis. If lower down, the result

is schizophrenia<sup>2</sup>. In Dr Readings experience, the two conditions have similar food and chemical sensitivities and intolerances, and both do well on the same exclusion diet and supplements.

#### **The following should be avoided:**

- 1) **Alcohol** contains yeast, malt barley extracts, congeners<sup>3</sup>, fermented grapes etc., and should be avoided.
- 2) **Pressor<sup>4</sup> amino-rich foods:** curry, chilli, sauces, spices, herbs, chokoes, zucchini, capsicum, mustard.
- 3) **Colourings, Preservatives, Additives:** artificial additives MSG 623 (Monosodium Glutamate), tartrazine 102, sunset yellow 110, sodium benzoate<sup>5</sup> 211 (210, 212, 213) and sodium metabisulphite<sup>6</sup> 223 are particularly to be avoided.
- 4) **Yeast and fermented foods:** contain over 70 glycoprotein fractions known to be immunogenic.
- 5) **Grains:** Many schizophrenic patients are missed coeliacs or latent coeliacs, and gluten and alpha-glia-

din in grains should be avoided.

- 6) **Cow's milk** Alpha-casein, alpha-lactalbumin<sup>7</sup>, beta-lactoglobulin in cow's milk should be avoided.
- 7) **Beef:** Beef, which contains albumin globulin, should be avoided.
- 8) **Eggs:** which also contain albumin globulin, should be avoided.
- 9) **Legumes and beans:** which contain lectins<sup>8</sup> such as vicilins, arachins, conarachins, agglutins and other toxic digests should be avoided.
- 10) **Solinaceae:** the Nightshade family of foods should be avoided, i.e., tomato, potato, eggplant, capsicum, tobacco/cigarettes
- 11) **Salicylates:** Foods naturally containing salicylates include; plums, prunes, apricots, cherries, cucumber, citrus, strawberries, kiwi fruit, apples, nectarines, currants dill pickles, blackberries, grapes, raisins, oranges, peaches, dried fruit and almonds.<sup>9</sup>

Extra nutrients from seven main nutrient groups are recommended:

vitamins, minerals, amino acids, CoQ10, bioflavonoids, essential fatty acids W3 and W6.

#### **Supplements include:**

Vitamin C, B1, B2, B3, B5, B6, B12, & E; choline, amino acids, essential fatty acids, manganese, zinc, magnesium and folic acid (Antioxidants are included).

This type of diet is confirmed by Dr Reading's experience with more than 400 rheumatoid arthritis patients and 500 schizophrenic patients. The diet also reverses the synovitis<sup>10</sup> of rheumatoid arthritis - the synovial membrane antibodies become negative as well as pain remitting.

Dr Reading has observed that the need for major tranquillisers is halved in certain patients with schizophrenia when tobacco/cigarettes are avoided.

Both rheumatoid arthritis and schizophrenia patients do better without junk food, caffeine, coca cola, chocolate, chemical colourings, flavourings and preservatives.

The food allergy-free diet reverses the autoimmune disease usually seen with milk and grain allergies and intolerances. The titres<sup>11</sup> halve every three months until normal, and the patients will not be metabolically disadvantaged. The nutritional approach to schizophrenia is highly successful when coupled with medication which is able to be progressively reduced or phased out with time, thus reducing the risk of tardive dyskinesia<sup>12</sup>

and distressing side effects.

Once food allergies and intolerances are identified, the strict regime can be modified. After about eighteen months, it is often possible to reintroduce some previously-avoided foods and supplements may also be reduced. Regular review is necessary, together with review pathology to confirm the appearance of improvement. It is often necessary to take protein snacks every 2 - 3 hours (when awake) to avoid hypoglycemia. Symptoms of hypoglycemia are mental confusion, etc., and may easily be confused with 'mental illness'. Exercise is essential. Supportive therapy and encouragement help the patient to have an improved quality of life as well as greater expectancy of life itself.

In **rheumatoid arthritis** Dr Chris Reading postulates, bigger fractions (peptides<sup>13</sup>) of food cause inflammation of the synovial membranes of the joints but do not get through the blood-brain barrier to the brain itself.

In **schizophrenia**, far smaller fractions do not cause inflammation of the joints but **do** get across the blood-brain barrier and cause cerebral inflammation and irritation; they stimulate dopaminergic<sup>14</sup> pathways and act like LSD. It is as though these patients have 'arthritis of the brain' - but not the joints.

The most likely cause of these conditions is pancreatic enzyme defects. As to WHY these defects occur, this is obviously a matter which should attract the urgent attention of researchers but it does appear very much genetic in some families.

It is essential to take blood samples for testing in such cases as accurate evaluation of the body's metabolic and nutritional status will result in quicker improvement or recovery. Many of these tests do not qualify for medical benefits.

We now make a request: that people who have both conditions in their family write and tell us (SOMA, PO Box 180, BONDI BEACH NSW 2026) about it. The result should prove very interesting. Replies will be treated in strict confidence.

#### References

- 1) **(Editor's note)** SOMA is a voluntary organisation very active in making orthomolecular psychiatry available to psychiatric patients through the Medicare system. It deplors orthodox psychiatry and their unholy alliance with the pharmaceutical industry. It aims at having diagnostic tests in orthomolecular psychiatry recognised by the Federal Government so as to reduce the ultimate social and financial cost of mental illness to society. Members who want to support SOMA should consider also becoming members of SOMA as their aims coincide with this Association. Address: Health Association of Australia PO Box 180, BONDI BEACH NSW 2026.
- 2) Hawkins, D & Pauling, L. (Eds) (1973), **Orthomolecular Psychiatry**, WH Freeman & Co., San Francisco

- 3) Congener are one or two or more things that are similar or closely related in structure, function, or origin. Example chemical compounds similar in composition and effect.
- 4) Pressor - describing a substance that tends to constrict blood vessels and thereby cause a rise in blood pressure.
- 5) Benzoate of benzene carboxylic acid occurs naturally in some plants and is used as food preservative.
- 6) Metabisulphites - a preservative which prevents microbial spoilage, used in fruits, vegetables, pastries, crackers, mushrooms, frozen pizzas, potatoes, sauerkraut etc. An individual whose asthma is triggered by wine may be sensitive to this preservative.
- 7) Albumin - a group of globular proteins, soluble in water and which form insoluble coagulates when heated. Albumins occur in egg white, blood, milk and plants. Serum albumens, which constitute about 55% of blood plasma protein, help regulate the osmotic pressure and hence plasma volume. They also bind and transport fatty acids. Alpha-lactalbumin is one of the proteins in milk.
- 8) Lectins (also called plant agglutinins, phytoagglutinins) - a group of animal and plant proteins capable of binding to certain specific carbohydrate containing receptor sites (glycoproteins) on the surface of red blood cells. They can agglutinate (glue together) red blood cells. Over 1000 lectins have been identified, they are especially abundant in the legume family of plants (beans, peas and lentils etc). Lectins have been shown to be able to distinguish between type A, B, and O red blood cells. Lima bean will agglutinate only type A red blood cells. A lectin from a lotus species will agglutinate only type B cells. They therefore play a crucial role in organ transplantation where tissue type of donor and recipient must be identical.
- 9) For a fuller list of salicylates see Hypoglycemic Newsletter, June 1990, page 10.
- 10) Synovitis, inflammation of the synovial membrane or lining of a joint capsule.
- 11) Titre - Expression refers to a unit of strength. The extent to which an antibody can be diluted before losing its power to react with a specific antigen
- 12) Tardive dyskinesia - (tardus=late, dys=difficult, kinesis=movement), an abnormal condition, mostly drug-induced, characterized by involuntary, repetitive movements of the muscles of the face, the limbs, and the trunk. This condition commonly affect patient who have been treated for extended periods with phenothiazine and some other psychotropic drugs. Nutritional supplementation as suggested in the main article will help to prevent/cure this doctor induced condition.
- 13) Peptide - (peptin = to digest) a molecular chain compound composed of two or more amino acids joined by peptide bonds.
- 14) Dopaminergic means having the effect of dopamine. Dopamine is a precursor of norepinephrine and epinephrine (adrenaline), all derived from phenylalanine and tyrosine obtained from food. Dopamine increases cardiac output and blood flow.

# RED MEAT AND HEART DISEASE

By CSIRO Division of Human Nutrition  
Produced by J Stokes

## *Attitudes to Red Meat*

Many consumers are turning away from red meat, or are demanding meat that is not only palatable and attractive, but also lean. These attitudes have developed since the 1950s, when the western world became aware of the association between coronary heart disease, the consumption of fat (particularly animal fat) and raised levels of cholesterol in the blood.

## *Protein, Fat and Energy*

Red meat is an excellent source of protein and energy, but it also supplies some 30-35% of the 100-130 grams of fat that Australians consume each day. Because fat is energy-rich, fat from all food sources supplies 40% of our energy needs although it only makes up some 15% by weight of the food we eat. Nutritionists believe that to avoid a number of modern diseases such as diabetes, obesity, some cancers, hypertension or heart disease, we should lessen our fat consumption by approximately 25%.

## *Susceptibility to Heart Disease*

The risk of death of heart disease brought on by atherosclerosis over many years is reduced by following a diet which is low in fat, or one offering a high proportion of polyunsaturated fats from plants or fish. These approaches lower cholesterol in the blood, although levels vary between individuals.

Work within the Division of Human Nutrition has shown that red meat diets low in fats are effective in lowering cholesterol. It is not the meat but the fat of the meat that is the cause of concern.

Atherosclerosis can lead to death by causing coronary occlusion and irregular beating of the heart. Such arrhythmia can also occur spontaneously leading to sudden cardiac death. Susceptibility to this latter form of heart disease has also been associated with the consumption of animal fat. Research at CSIRO has found that plant oils and marine (fish) oils reduce this risk.

It is believed that polyunsaturated fatty acids found in these oils are instrumental in

reducing arrhythmia of the heart. To some degree similar fatty acids are found in the structural fats of red meat. Their concentration is greater in lean meat, however, and for this reason it appears possible that lean red meat could diminish the susceptibility of humans to sudden cardiac death.

## *Lean Meat - Consumption and Production*

Lean red meat is not only a good source of protein and energy, but also has benefits in terms of the avoidance of heart disease. Consumption of fat however must be reduced. Public demand presents a challenge to farmers and scientists to jointly explore ways and means of producing this essential food efficiently.

### **Further reading:**

Lean and fat-modified meat, **CSIRO Division of Human Nutrition, Sixth Report**, 1985/6 pp 25-26

Greenfield H ed. "The nutrient composition of Australian meats and poultry", **Food Technology in Australia**, 39(5) May 87, pp 181-240

Siebert BD et al. "Comparative effects of lean- and high-fat or cereal diets on plasma lipids in the pig", **Nutrition Research**, 7, 1987, pp 877-881

Thornton RF et al. "Fat content of popular cuts of meat: cooked and raw" **CSIRO Food Research Quarterly**, 47(2), June 1987, pp 30-37

Tracey, MV, "Meat and mankind" 34th International Congress of Meat Science and Technology, **Congress Proceedings Part A**. 29 Aug-2 Sept 1988, Brisbane, pp 1-5.

Traianedes, K et al. "The cholesterol lowering effect of low fat diets rich in lean beef is reversed by adding beef fat to the diet", **Proceedings of the Nutrition Society of Australia**, 12, 1987 p 107.

## DIETARY FIBRE

By CSIRO Division of Human Nutrition  
Produced by J Stokes

The ancient Greeks and Romans had long recognised the laxative and satiety value of bran and wholemeal breads. A century ago, fibre in the diet was thought to be harmful to the body. It was believed to interfere with the absorption of essential nutrients from food and also increase bacteria in the bowel.

During the late 1960 - early 1970, British doctors noticed that African people, particularly those in Uganda who lived on traditional foods were high in dietary fibre, did not suffer any of the degenerative diseases of western civilisation. These diseases included diabetes, cardiovascular disease, bowel cancer - even constipation.

A healthy diet, with a high content of fibre foods, from early childhood will ensure a much healthier adult life regarding digestive problems. Simply adding a tablespoon of bran to an otherwise low-fibre diet does not confer all the health benefits of fibre. Now health enthusiasts have been encouraging people to replace white breads with more bran and wholemeal varieties as prescription for a healthy long life.

## *Dietary Guidelines*

Australian Dietary Guidelines recommend that we eat more breads and cereals (preferably wholegrain) and fruit and vegetables. Dietary fibre (or 'roughage') is a complex mixture of different components including the carbohydrates cellulose, hemicellulose, gums, mucilages, pectins and the non-carbohydrate-lignin.

These components are found in cell walls and exudative material secreted by plants. Fibre chemistry is a recently developed science - the metabolic effects of the isolated and purified fractions of fibre are yet to be adequately defined.

## *Food Sources of Dietary Fibre*

Dietary fibre are found in foods of plant origin only - cereals, vegetables, fruit, dried peas, beans, lentils and nuts. Wheat bran contains 40-50% fibre, wholemeal bread about 6.5%, brown and most mixed grain breads (4.9%) and white bread (2.6% - if not enriched).

Because of their water content, fruits and vegetables are more dilute sources (1.5-5%). Legumes, nuts and dried fruits are higher in fibre (greater than 7%). Foods such as meat, fish, eggs, milk and cheeses, table sugar and alcohol do not provide dietary fibre.

## *Fibre in Prepared Food*

Fibre plays an important role in the preven-

tion of a number of diseases. Fibre should be obtained by eating a variety of different foods. Second only to Americans, Australians are the most health conscious race and food manufacturers are increasingly improving the production of prepared foods in line with the results of latest research. Product now available on our supermarket shelves are essentially very high in nutritional value and buyers are also quite well informed on increasing fibre in their diet, eating less salt, less fat and lowering cholesterol.

#### **What is Oat Bran?**

**Bran** is the hard and rather woody protective outer coating of cereal grains which serve to protect the grain before it germinates. Brans are obtained from the normal milling process of commonly-eaten cereals such as wheat and oats.

#### **What is the Difference between Wheat Bran and Oat Bran?**

Wheat and oats are cereals but their grains are rather different. Both contain a *germ* and a large amount of starch. The starch provides the energy reserve for the germ as it sprouts to produce a new plant. The starch reserve is called *endosperm* which we use for energy when we eat oat porridge, muesli, or the flour from the wheat. Oat grain differs from wheat in that it contains about twice as much polyunsaturated fat. The most noticeable difference is the outer coat and in the fibre of the grain. Wheat contains a layer of cells called *aleurone* which separate the seed coat from the endosperm. During milling, the aleurone and the seed coat are broken apart and very little starch remains. In oats, the aleurone layer contains much more water-soluble fibre and the cells reach down into the endosperm. During milling the oat bran that separates contain aleurone cells, seed coats and starch.

#### **Do Oat Bran and Wheat Bran have different Effects?**

Wheat bran is a very good source of *dietary fibre* as it is not soluble in water. This gives wheat bran its main beneficial action of being a good (and cheap) laxative - because the fibre increases the mass of the stools. *Wheat bran* has few other actions that are considered important. *Oat bran* contain some insoluble fibre plus a larger amount of soluble fibre, both of which can help laxation. The soluble fibre component seems to give the oat bran its other major attraction - that of lowering cholesterol.

#### **How can Oat Bran lower Cholesterol?**

It has been known for many years that oats

an oat products can help to lower blood cholesterol levels in the body. This probably occurs through the increased conversion of cholesterol to bile acids in the liver. Because oat bran binds bile acids in the intestines, more bile acids are lost when oat bran is eaten, therefore more cholesterol is used to replace the bile acids.

#### **How much Oat Bran?**

Raised plasma cholesterol is a major risk factor for early coronary artery disease. Studies in America have shown that a 1% reduction in cholesterol produces a 2% reduction in the risk. Feeding experiments in humans have shown that:

\* about 60 to 90 grams of oat bran per day (depending on the type of bran) is required in order to lower blood cholesterol levels appreciably.

\* this amount may provide up to 10 grams of the total fibre intake required per day.

The quantity of rolled oats needed to produce the same effect is larger because oat bran is a more concentrated product. However, both are pleasant foods which may be eaten with enjoyment. It is important to realize that one food product in the diet cannot be expected to lower cholesterol levels by itself. Consumers must also reduce the intake of their total and saturated fats. The value of porridge for breakfast is improved if it replaces more fatty acids.

#### **Summary**

- \* An important component of a healthy diet
- \* Not one substance, but a mixture of various components
- \* Difficult to measure due to its complex nature
- \* Some health benefits which still need to be clarified - more research is still necessary
- \* Present in processed food as well as in fresh food
- \* 30-35 grams of fibre daily is desirable
- \* Drink plenty of fluids each day as this assists the action of fibre.

#### **Reference for further reading:**

- AIFST; CSIRO Division of Human Nutrition; CAFTA "Dietary fibre" **Food information Service**, North Sydney 1988, p 1-11
- Baghurst, KI, Improving our lifestyle through diet" **Genesis** 7(5) Sept-Oct 1990 p 10-11
- Beckmann, R, The good that fibre does - new findings" **Ecos**, Autumn 1987, pp 3-6
- Briggs, D and Wahlqvist, M "Food fact", **Ringwood, Vic**, Penguin Books, 1988, p61-66.
- Nestel, PJ, "Dietary fibre" **Medical Journal of Australia**, v 153, August 1990, p123-124.
- Nestel PJ, "Fibre: more than a simplistic belief needed", **Food Australia**, 40 (9) Sept 1988, p352
- Oakenfull, DG, and Topping, DL, "The nutritional value of wheat bran", **Food technology in Australia**, 39(6), June 1987, pp288-192
- Saxelby, C, "Food what's in it" French Forest, NSW, **Reed Books**, , 1989, p6
- Schneeman, BO, "Dietary fibre and gastrointestinal function", **Nutrition Reviews**, 45,(5), May 1987, pp129-132
- Topping, DL, "Changing perceptions of dietary fibre", **Food Technology in Australia**, 40(7), July 1988, pp 266-267
- Topping, DL, "Dietary fibre...essential for good health", **Genesis**, v71(1) Jan-Feb 1990, p 4-5
- Dietary fibre and obesity - symposium", **International Journal of Obesity**, 11 (Suppl.1) 1987, pp1-107
- "Increasing fibre" **Nutrition fact card**, **SA Health Commission**.

*Everything is big in the USA and southern plantations were often known for their elaborate meals:*

A Charlestown 'preserve of fowl' was created by stuffing a dove into a quail, then the quail into a guinea hen, the guinea hen into a duck, then that into a capon, which in turn is stuffed into a goose, the goose goes into a turkey, and the whole is roasted and sliced in transverse section.

## **1996 MEETING DATES**

**2th MARCH - 1st JUNE - 7th SEPTEMBER - 7th DECEMBER**



Many parents realize how important child nutrition is, but whether they can provide the nutrition that allow for their children to prosper is often another story. Childhood health is impacted by more than making proper diet choices. These videos illustrate how everything from natural disasters and disease to economic hardships and war can impede if not starve the future of developing countries. Good nutrition is essential for survival, physical growth, mental development, performance, productivity, health and well-being across the entire life-span: from the earliest stages of fetal development, at birth, and through infancy, childhood, adolescence and on into adulthood. Infant and young child feeding and nutrition. They lead to improved nutrition and physical growth, reduced susceptibility to common childhood illnesses and better resistance to cope with them. Childhood nutrition involves making sure that children eat healthy foods to help them grow and develop normally, as well as to prevent obesity and future disease. The traditional or mainstream approach to good childhood nutrition is to follow suggestions based on dietary guidelines that are appropriate for a child's age and development level and that have been developed and recommended by government, research, and medical professionals.