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.

This association aims to make the public more aware of the problems of hypoglycemia and natural health in general. In a world where we are bombarded with environmental pollution and artificially manufactured food stuffs, where food inspectors are being replaced by contract 'inspectors' in a self-regulated food industry, where contaminated sea waters produce unhealthy fish, where deforested lands cause unusual droughts and floods, where the world's upper atmosphere is fouled by chemicals altering the earth's climate and where a faltering public health system remains hostage to shareholders of lucrative drug companies, in such a world those people who take personal responsibility for their health may have a better chance to survive.
People have indeed a choice, provided they are informed on available alternatives. Many modern doctors conscious of the limitations of orthodox medicine, share the philosophy of complementary medicine. It is possible to treat *degenerative diseases* with natural remedies in conjunction with traditional medicine. However for this to happen we need an informed 'consumer market', a public sufficiently educated to converse and consult these modern doctors in the fore-front of the medical revolution. This publication is funded entirely by members of the Association and by donations from health professionals who receive copies without charge. Your support is needed to continue our work and YOU ARE URGED to forward your subscriptions to the Association with the application form printed on page 8. (Fees: $15 p.a.; $10 p.a. for pensioners and students).

Our Next Public Meeting will be at 2 PM
on Saturday, the 7 June 1997
at the YWCA,
2 Wentworth Ave, Sydney and
our guest speaker is

Daniel Baden ND

who will be speaking

on the subject of

"What's new in natural medicine?"

Daniel Baden ND, Dip. Hom. graduated from Naturecare College (Sydney) in June 1989 and went directly into practice. He has had published articles on "osteoporosis" and "vaccination" and also made several radio and television appearances. He has lectured at Naturecare College in Clinical Nutrition and Case Studies for a number of years. Daniel is active in the health community, promoting natural health and encouraging closer ties between health professionals.

Previous Copies of the Hypoglycemic Newsletter

Back issues of the Hypoglycemic Newsletters are available at the NSW State Library, Macquarie Street, Sydney. They are filed under NQ616.466006/1 in the General Reference Library.
Other libraries holding copies are: National Library of Australia, Canberra; Stanton Library, North Sydney; The Tasmanian State Library; The Sydney University; The University of NSW. The Association will provide free copies to any library upon request.

Books for sale at the meeting

Jurriaan Plesman: **GETTING OFF THE HOOK**

This book is also available in most public libraries (state and university)

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. The Editor is interested in meeting any person aspiring to research natural medicine and contribute articles as a sub-editor to this Newsletter.

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.

A Hypoglycemia Support Group is being formed. For more information, please phone Tel (02) 9953-7851.

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 9553-0084.

Stephen McNaughton won the lucky door prize and **Gesina den Dulk** won the raffle at our last public meeting on the 1 March 1997

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 **9553-0084.**

Research into illnesses

Members who are interested to have an informative article written on a particular illness or disease, should contact the Editor, c/- PO Box 8, Sylvania Southgate NSW. The editor is willing to research literature on the illness and report in the newsletter with the known traditional and complementary treatment . Or he may refer any medical question to an expert in the field. However, it must be understood clearly that treatment remains the responsibility of your doctor or health practitioner and that such articles are only designed to inform the patient or to complement his/her discussion of the illness with the professional practitioner. The Association does not take any responsibility for any self-diagnosis or self-treatment undertaken by the reader on the basis of anything published in this Newsletter.

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

CWASQ, What's New in Fatigue Therapy & Hypoglycemic Management

By Dr George Samra

(From a lecture given at the Association on 1 March 1997)

A large part of my interest in the last 10 to 12 months has been taken up with CWASQ, which stands for *Computerised Weighted Allergy Sensitivity Questionnaire.* The first part of the talk will be devoted to this topic and in the second part I will speak on new developments in hypoglycemia and its management .

CWASQ is a computerised weighted questionnaire that can be used to identify the most likely allergens by detecting combinations of symptoms from the questionnaire and correlating these.

Most doctors regard food as something that nourishes you and that is good for you. Few recognise that it can also be bad for you. Anything that you consume can go into three different directions:

1) It is said to be good for you when it gives you for instance energy
2) It is said to be neutral, thus neither good or bad, but may be essential for survival in a famine
3) It is said to be bad for you if it gives you for instance a migraine or other symptoms associated with chronic illness.

Allergies and sensitivities

Most medical practitioners regard an allergy as something that can be identified with a blood test, such as a RAST or a cytotoxic test.

A RAST test or *radioallergosorbent test* uses the technique of radioimmunoessay to identify and quantify IgE[1] in blood serum for any specific allergen.

Cytotoxic testing is a blood test performed by mixing a white cell content from the patient with an allergen concentrate and observing under the microscope changes to the white cell mentioned. This is regarded as a cell-mediated (T-cell) response.

The *Allercat test* combines both the IgE and cytotoxic principles. The medical profession has no test that identifies every single reaction to food. Thus when a food might give you repeatedly a reaction, such as a migraine headache every time you eat chocolate, yet fails to show up on an allergy testing this is regarded as a food sensitivity, rather than an allergy.

Allergy knowledge base

In order to design an allergy questionnaire, you need to accumulate knowledge and experience concerning allergies. There are many

books on allergy written by authors such as Theron Randolf, Ralph W Moss. William Crook, Michael Lesser, Stephen Davies and Alan Steward. Most of these sources are anecdotal and based on clinical practice with patients suffering from allergies. In my own case I have twenty years of clinical experience and this remains the best source of knowledge in this area of medicine.

One way of collecting information is by means of *Diet Records.* Many of my former patients would be familiar with the dietary record as shown in my book **"The Hypoglycemic Connection"** at page 79. The record consists of three columns in each page, each page covering one day. The first column shows the "Date and Time", the second column "All food and drinks" consumed, and the third records the "Mood (and Energy) before eating". By monitoring and comparing one's reactions to foods consumed over a period of time, one soon begins to make connections between the "good foods" and the "bad foods", but at least one gains a "feel" or "second sense" about allergies.

Rules of allergies

Some of the rules do not seem to be logical, but in fact they are.

Rule: *The greater the exposure to a food (or allergen) the more likely one is to develop allergy*

- Therefore: "Common foods are most allergenic" and
- Inversely: "You can't be allergic to something you have never been exposed to before". For example: You can't be allergic to penicillin if you have never been exposed to it before.

For example, foods like milk, wheat, baker's yeast, peanuts, cocoa and oranges are most likely to be found in allergy testing and so are most likely to be involved in allergic reactions.

Rule: *Symptoms caused by allergy are proportional to exposure to the allergen*

- Therefore: Frequently occurring symptoms e.g., headache means frequent exposure to an allergen and
- Inversely: Infrequently eaten foods can't produce a daily headache e.g., coconut products eaten once in every three months, can't cause the daily headache.

Allergens show typical target organ patterns

For example, *cocoa*, including *chocolate* and *cola drinks* often cause headaches or migraine and/or skin problems. People with skin problems - as in the case of acne and psoriasis - would find it worthwhile to avoid cocoa as a trial for at least three or four weeks to see what happens.

Tomato allergy often targets synovial membranes, causing inflammation and tendon inflammation. Thus patients suffering from rheumatism and arthritis may benefit if they avoid tomatoes in their diet.

We often find that

Rule: *Cross sensitivity often occurs with allergens in the same family*

- Therefore: In the case of a tomato allergy other members of the Nightshade Family, such as potato, tobacco, eggplant, capsicum, chilli and hot peppers may cause similar reactions and symptoms.

One needs to understand food families and food relationships. A person may experience the worst joint pain after consuming potatoes and practically none with tomato. There is a case of one of my female patients in which every time her husband smoked tobacco around her, her arthritis would flare up and so he agreed to smoke his cigarette on the balcony from then on.

CWASQ based on experience

CWASQ (Computerised Weighted Allergy & Sensitivity Questionnaire) is the result of long experiences with allergies. It derives from a knowledge base, together with the formulation of allergy principles or rules. The CWASQ aims to predict most likely allergens from information gained in a questionnaire.

*This Newsletter will include the **CWASQ** as a separate sheet. Readers have an opportunity to complete the CWASQ and send it to Dr George Samra as per address given. The usual charge for analysing the results is $50, however members of the Association will only be charged $15 one off, and Dr George Samra has indicated that he will donate $5 to the Association to cover incidental expenses.*

Why computerised? The twenty-first century is just around the corner. Computers are the way of the future. It removes human bias and lends itself to reproducibility. In most allergy tests you have a human operator which is the source of human error. If you remove the most likely allergens such as milk, wheat, yeast, cocoa and oranges from an allergy test it would test how good the test and the operator are.

With computers we will have the advantage of speed in the future and ease of usage. Computers are able to scan the results of the questionnaire. Computers offer the scope of the Internet which would make the CWASQ useful on a world-wide basis.

Why weighted? Some answers are made relevant to different conditions and different combinations of answers. Computers can quickly weight answers in proportion to their significance. A set of answers in the questionnaire could relate to adrenal mechanisms and a similar overlapping set of answers could relate to sugar mechanisms. The computer is able to weight in proportion to how much the related answers might be expected to affect a person.

Why a questionnaire? A questionnaire acts as a comprehensive nutritional history of a patient. It takes the form of a detailed relevant disease and symptoms profile, and can be tested on a sensitivity scale.

If the questionnaire suggests possible allergens that one should avoid and the symptoms improve dramatically, it is recommended that one avoids those foods for at least three months. There is a probability of about 50 per cent, especially among children, that the person may lose that allergy altogether. This again depends on the allergen involved. It is possible to lose a chocolate allergy after a long period of abstention. However in the case of milk this may be different. Sometimes milk products may target different tissues as the child grows older.

It is sometimes suggested that we inherit our allergies from our parents. This is not correct. It is rather that we may inherit a weak immune system, which may cause for example a child exposed to cow's milk to develop an allergy.

Any system purporting to detect allergies in a person may have its shortfalls. If six weeks after performing the questionnaire and avoidance of allergens one feels that symptoms have not improved it is recommended that one re-introduces suspected allergens one at a time. This should be done about one week apart.

The CWASQ also gives food instructions and how to avoid foods and how to find substitutes.

For example, if there is a reaction against beef, it can be substituted for by using small goods derived from pigmeat or from textured vegetable proteins. Pork and lamb can be used to replace beef.

Hypoglycemic Management

I would like to discuss this topic now. The term *hypoglycemia* is an unfortunate one, and many doctors would say that this condition rarely exists. The word means *low blood sugar*, but should really mean a condition where a person's brain does not get fed properly when they eat sugar. Most doctors know the word hypoglycemia in the context of diabetes, as for example when a patient accidentally overdoses on insulin. The term as used by many nutritional doctors is one that most doctors know very little or close to nothing about.

In my experience hypoglycemia is as common as diabetes which means that 3-4 per cent of the general population may be suffering.

Diabetics have a similar underlying problem, namely an unwell pancreas that does not handle sugar properly. After consuming sugar in diabetes the blood sugar goes up too high, whereas in hypoglycemic patients it is the opposite, they produce too much insulin. After an initial rise blood sugar drops down to low levels. The brain is dependent upon the level of glucose in the blood. When the blood glucose level is low, the brain does not get nourished and people become easily tired and get depressed.

In my book **The Hypoglycemic Connection**, available in most libraries, I speak of the hypoglycemic syndrome which may be diagnosed by the presence of at least 3 of the

following 4 symptoms;

1) Depression or moodiness
2) Lethargy or tiredness
3) Memory impairment, or poor concentration
4) A history of preference for sugar or sweet foods

Hypoglycemia follows an *autosomal dominant inheritance* pattern, which means a pattern of inheritance in which the transmission of a dominant gene can be passed on in 50 per cent of cases to the next generation. Males and females are affected with equal frequency. The prevalence of hypoglycemia in a family may help a doctor have insight into the management of an unruly child as well as the symptoms of a mother who are both affected by a sugar-handling problem.

Associated conditions of hypoglycemia may show up among alcoholics and drug addicts. It usually means that the starvation of the brain has driven a person to unacceptable social behaviour. Many crimes - and let us not forget that over 70 per cent of prisoners have an association of alcohol or drug use - are the result of hypoglycemia that has gone wrong. I am of the opinion that in most cases hypoglycemia precedes the development of antisocial behaviour, alcoholism and drug-addiction. Many alcoholics and drug-addicts manifest a Type I sugar curve following glucose tolerance testing . This means following the rise in blood sugar, there is a very sharp fall. The body compensates the subsequent sugar starvation by pumping adrenalin from the adrenal glands into the blood, which then raises the sugar levels. High level of adrenalin may cause mood swings, violent outbursts and emotional instability. People with excessive adrenalin levels may drink alcohol - a calming drug - in order to combat the adrenalin side effects. Alcohol is a legal drug and helps to calm down nerves caused by high adrenalin levels in Type I hypoglycemia. Thus, rehabilitation programs based exclusively on 'psychological models' are often bound to fail as they tend to ignore the metabolic aspect involved in behaviour. Major social issues are tied up in this condition.

Another associated condition is Hyperactivity or what is now called ADHD or Attention Deficit Hyperactivity Disorder where the brain is not fed properly when children eat sugary foods. The behaviour can go either way: the child may withdraw in a corner or it may climb on practically everything. A GTT usually indicates which way a child will behave as in both cases they have an underlying sugar-handling problem.

Maturity Onset Diabetes is another associated condition.

People with sleeping problems or who are taking sedatives to cope with their lives may have a hypoglycemic condition.

Glucose Tolerance Test

The hypoglycemic condition can be diagnosed with a Glucose Tolerance Test (GTT). I usually order a 4 hour test with blood taken every half an hour. These days a diabetic GTT is a two hour one. A patient undergoing a hypoglycemic GTT must fast from 10 pm the previous night with no special carbohydrate diet. It is a valid test when a laboratory uses a Spectrophotometry as measurements are far more accurate than glucometers. The glucometer may often be 1 micromol/L out. Accurate figures are required. The relationship between the readings of numbers just half an hour apart in a GTT is very important. A drop of 2.7 mmol/L in any hour or 1.6 mmol/L in any half an hour is indicative of hypoglycemia.

Fasting levels on your sugar curves tell us a lot. People with readings of 3.2 - 3.6 mmol/L, usually wake up glum and tired in the morning. People with higher readings of say 5.2 mmol/L and higher usually wake up bright and are often cheerful all morning. Thus you can predict more from looking at a sugar curve than just diabetes or hypoglycemia.

Definition of hypoglycemia

Although 2 per cent of the body by weight, the brain uses close to 50 per cent of all available glucose and more importantly cannot use other fuels such as free fatty acids,

Reactive hypoglycemia is present if the blood glucose (or sugar) falls sharply (below 3.6 mmol/L) after consuming a 75 grams of glucose load - usually the fall occurs after 1 1/2 to 2 1/2 hours. It is usually due to the oversecretion of insulin by the pancreas, although it is recognised that other mechanisms may be involved. Hypoglycemia is a hormonal disease, caused mainly by insulin oversecretion often with an associated adrenalin oversecretion. Other hormonal conditions such as thyroid and adrenal problems do tie up with hypoglycemia.

Typical **symptoms** are: tiredness, moodiness, depression, poor concentration, irritability, sugar cravings, nervousness, poor memory. The condition usually runs in families and can include diabetes, alcoholism, ADD, hyperactivity, drug abuse and behaviour disorders.

Treatment consists of keeping off the simple carbohydrates such as sugar, honey, glucose and have six small meals every day. The meals should be roughly equal. Minimum size of a meal should be half a sandwich with the equivalent of a boiled egg or a chicken wing. Packet of Smith chips plain. A protein breakfast made up of fish, chicken, mince or eggs is important to provide the necessary fuel for the brain. I usually recommend supplementation with zinc as in the Vitaglow product Zinc Plus C at the dose of two tablets per day. This product also contains vitamins B3, B5, B6 as well as vitamin C.

Glucose as brain fuel

The brain is highly sensitive to the availability of glucose as a source of nutrition.

Although 2 per cent of the body by weight, the brain uses close to 50 per cent of all available glucose and more importantly cannot use other fuels such as free fatty acids, triglycerides and cholesterol. This is in contrast to the heart that can use at least 42 different fuels at any point in time. Thus when there is a hypoglycemic crash, the brain is in trouble, and this triggers the many symptoms.

The hypoglycemic disease often occurs concurrently with many illnesses such as alcoholism, drug abuse, heroine addiction, sedative abuse, sugar addiction, hyperactivity, diabetes mellitus, hypothyroidism, post-menopausal hot flushes, depressive illnesses, epilepsy, schizophrenia and migraine sufferers.[2]

One problem with nutritional treatment is that the patient has to be motivated to undergo treatment. An alcoholic who refuses to acknowledge he has an alcohol problem or who does not want to change will not benefit from nutritional management.

Goals of treatment

One should never lose sight of the goals of treatment. First and foremost, one wishes to alleviate all hypoglycemic and diet related symptoms. Secondly, one aims at stabilising blood glucose levels, prevent overstimulation of the pancreas with excessive insulin production and in the long term prevent diabetes and diabetic complications. To ignore one's hypoglycemic condition may result in the punishment of being a diabetic patient with all its diabetic complications.

Conclusion

Another way of looking at the problem of hypoglycemia is that one's pancreas does not know how to fit into the twentieth century, where people are eating a high sugar diet. In a world where modern foods are sugar-loaded all the time the pancreas is not equipped to handle it properly, the blood sugar keeps crashing and the brain keeps getting starved of fuel.

One might claim that hypoglycemia is not a disease, but rather a reflection of the fact that we live in a sick society where we are all made to eat a lot of sugar. Each person now consumes twenty times more sugar than people did a hundred years ago and hundred times more per person than 200 years ago.

Hypoglycemic people do not fit into a high-sugar society and so long as such society lasts, we will have more people coming down with hypoglycemia.

FOOTNOTES

1) IgE is one of five classes of antibodies produced in the body as a defence against environmental antigens. It reacts with certain antigens (a protein causing the formation of an antibody) to release certain chemical mediators that result in a reaction characterised by wheal and flare. IgE is concentrated in the lung, the skin and cells of the mucous membranes.
2) See **Table 1** Samra G (1984), **The hypoglycemic connection,** MINT Enterprises Sydney, Australia page 99.

SCLERODERMA

By Jurriaan Plesman, BA (Psych), Post Grad Dip Clin Nutr

SCLERODERMA, also known as Progressive Systemic Sclerosis (PSS), (derived from sklero=hard and derma=skin) is a relatively rare autoimmune disease affecting the blood vessels and connective tissues. The disease is characterized by degeneration of connective tissues of the skin, lungs and internal organs, especially the oesophagus, digestive tract and kidneys. It most commonly affect middle-aged people between the age of 30 and 50, with women being affected more often than men. The disorder appears to have a genetic component. The disease belongs to the class of diseases known as collagen disease, such as polyarteritis nodosa, rheumatic fever, rheumatoid arthritis, lupus erythematosus, dermatomyositis.

Symptoms

Early symptoms, often confused with rheumatoid arthritis and Raynaud's disease[1], are changes in the skin of the face and fingers, with gradual hardening of the skin and swelling of distal extremities. Thickening of the skin is due to overproduction of collagen by fibrous tissue cells, with diminution in the capillary circulation.[2] It is part of a generalised condition called sclerosis which may manifest itself in difficulty with swallowing and diarrhoea. As the disease progresses it may affect the joints, muscles, digestive tract, kidneys, heart and lungs. Joint deformities accompanied by pain (arthralgia) and oedema are often followed by hardened tissues becoming fixed to underlying tissues. This may cause the face to look taut and mask-like, interfere with movement and lead to muscle weakness and atrophy.

Reflux oesophagitis - or irritation and inflammation of the gullet - is a common problem with loss of oesophageal peristalsis (waves of contractions). Extension and constrictions of the large and small bowel may cause abdominal pain, obstruction, diarrhoea and malabsorption problems. Thus a common sign is a greater than normal amount of fat in the faeces (steatorrhoea) that floats, for which antibiotics are often prescribed.

Sclerotic development may affect the lungs, leading to laboured breathing (dyspnoea) and other pulmonary ailments, the heart (cardiomyopathy) or the kidneys which may show up as a sudden rise in blood pressure (arterial hypertension) which does not seem to respond to medication.

The disease is divided into subsets of syndromes with limited symptoms.

Patients with the *CREST syndrome* may show signs of unusual nodule of calcium (calcinosis), Raynaud's phenomenon, deformities affecting the muscle and bones around finger (sclerodactyly), or permanent dilatation of small capillaries and venules under the skin (telangiectasia) or oesophageal involvement.

Morpoea and linear scleroderma is limited to well demarcated lesions of the skin and tissues just under the skin (subcutaneous).

Oesinophilic fasciitis is a scleroderma like conditions characterised by pain, swellings and tenderness of the hands, forearms and feet, where the hardening (induration) of the skin is not associated with Raynaud's phenomenon or systemic sclerosis.

Treatment

Treatment is mainly symptomatic as no drug therapy has proved to be effective in arresting the course of systemic sclerosis. Corticosteroids may provide some symptomatic relief in severe cases where inflammatory swellings (oedema) or associated myositis and/or arthritis are prominent features. Some of its side effects are increase in blood pressure. Although penicillamine and colchicine tend to inhibit collagen cross-linking responsible for the overproduction of collagen, the use of these drugs has been disappointing in the management of the disease. Inflammatory reactions are normally treated with aspirin and non-steroidal anti-inflammatory drugs (NSAIDS).

Alternative treatment

Rule out rheumatoid arthritis, other connective tissue diseases, parasites, candidiasis, bowel problems, digestive enzyme deficiencies. The patient needs to experiment with several nutrients or dietary regimes to see if there are any improvements.

As scleroderma is a disease that affects collagen formation its treatment is similar to that described under "Polymyositis and Dermatomyositis" and "Systemic Lupus Erythematosus" in the March and June 1996 issue respectively of the Hypoglycemic Health Newsletter.

In summary it was argued that alternative medicine aims at strengthening the immune system. The first step would be to adopt the hypoglycemic diet regardless whether a patient suffers from either a hypoglycemic syndrome or from a pre-diabetic condition. This diet is similar to a diabetic diet, strictly avoiding sugar (sucrose), having frequent small high protein snacks and supplementation with B-complex vitamins plus minerals, especially zinc. Artificial sweeteners or fructose (less than 40g per day) can replace sugar and may render that diet more acceptable. The aim is to stabilize sugar levels.

The reason is that unstable blood sugar levels causes an upsurge of adrenaline during a 'hypoglycemic dip'.

High levels of adrenaline may cause not only many of the 'psychological' disturbances, but more importantly interfere with *growth hormones* secreted by the anterior pituitary gland. This is because high levels of insulin produced during a hypoglycemic episode suppresses growth hormone release. Growth hormones play a crucial role in synthesizing proteins - thus enzymes and hormones - as well as accelerating the transport of specific amino acids into cells.

Many protein-dependent enzymes play a protective role against the proliferation of free radicals, highly reactive molecules that attack the immune system and which have been implicated in collagen disease. For instance, superoxide dismutase (SOD) combines with superoxide radicals (free radical) converting them to less harmful substances. This enzyme requires zinc, copper and manganese as coenzymes. Another enzyme glutathione peroxidase also attacks free radicals and this enzyme requires selenium in the form of selenocysteine for it to be active. Although selenium supplementation is freely available in the USA, in Australia people suffering from autoimmune disorders should obtain a doctor's prescription.

Allergies and food sensitivities have often been associated with autoimmune disorders, including scleroderma and other collagen diseases. *(See Dr George Samra's article page 2, this issue)* Many patients feel better if they avoid dairy products, milk and eggs and other mammalian meats such as beef. A diet high in vegetables - especially green, yellow and orange - should supply all the necessary nutrients a person needs. Incompletely digested protein particle, known as peptides, may enter the blood stream and travel to sites in the body, where they are recognised as 'foreign' setting up a defence (allergic) reaction. Often this may be due to low stomach acids. *Hydrochloric acid* is secreted in the stomach and is a major component of gastric juice. Its production is stimulated by *acetylcholine, gastrin and histamine.* Low levels of hydrochloric acid in the stomach (**achlorhydria**) may fail to prepare protein particle in readiness for further digestion in the duodenum. Sometimes supplementary hydrochloric acid in tablet form may assist the patient, but only if

hypoacid condition has been verified by tests. Or again the pH of gastric juice may not go below 6.0. On the other hand, digestion in the duodenum takes place in an alkaline environment. The duodenum is normally protected against gastric acid by the buffering action of bicarbonate in alkaline pancreatic juice, as well as by other mechanisms such as secretion of bicarbonate by Brunner's glands in the duodenum. People with gastric or peptic ulcers should avoid substances that stimulate acid secretion, including caffeine and alcohol. If allergies are caused by digestive problems of this kind a medical practitioner should be able to find the right balance by prescribing either hydrochloric acid or bicarbonate. Stimulation of natural production of hydrochloric acid can be achieved by careful use of specific herbs such as "Swedish bitters" combination.

An unrecognised **Coeliac disease** may play havoc in the alimentary tract, seriously interfering with absorption of nutrients. This disease is caused by an inborn error of metabolism of the protein *gluten*[3] found in wheat, rye, oats, barley, malts, pastry, spaghetti, and flour. Rice and corn are good substitutes for wheat. Dr Chris Reading, a well-known psychiatrist in Sydney, claims that coeliac disease can cause arthritis or schizophrenia, but that the two conditions are not found together in the same person, although sharing the same aetiology[4]. Thus a gluten-free diet should be tried out by any person suffering from scleroderma to see if there is any improvement, or better still consult a doctor for a proper diagnosis.

Related to this is **lactose intolerance** often found with coeliac disease and other food allergies. Here the person cannot digest lactose found in milk products, because of a deficiency of or defect in the enzyme lactase. Symptoms are bloating, flatulence, diarrhoea, abdominal cramps and nausea. If this is the case try goat's milk, lots of yogurt and sauerkraut.

A scleroderma patient should also test if there is a hyper-sensitivity to certain foods that are known to contribute to rheumatic and arthritic conditions. Among these are vegetables in the nightshade family: tomatoes, potatoes, eggplant, capsicum, chilli, pepper, and members of the citrus family such as oranges, lemons, grapefruit, kiwifruit and passionfruit.[5]

Dr Chris Reading, in his article of *Advances in Orthomolecular Psychiatry* in Newsletter of March 97, Page 4 has pointed out that certain people with a particular blood group containing antigens HLA-8 and HLA-DWR3 could develop scleroderma if they were to consume Spanish toxic rapeseed oil.

It has previously been pointed out that in the case of lupus, alfalfa sprouts or tablets that contain L-canavanine sulphate may aggravate the disease, and it is suspected that the same applies to scleroderma. Also patients should avoid L-tryptophan supplementation, which may produce substances that promote the autoimmune process[6]. Theory has it that patients are deficient in an enzyme converting tryptophan to serotonin, and that breakdown products of tryptophan contribute to an autoimmune response. Tryptophan conversion to serotonin requires vitamin B6 as a coenzyme and perhaps severe deficiency of that vitamin may contribute to the problem.

Table 1

HERBS POSSESSING IMMUNOLOGICAL PROPERTIES

Common	Botanical
Birch leaves;	Betula alba, Betula pendula, Betulaverrucosa
Buckbean;	Menyanthes trifoliata
Echinacea;*	Echinacea angustifolia
Garlic;	Allium sativum
Ginseng;	Panax shin-seng and Panax quinquefolius (American) very similar (Panax = panacea)
Goldenseal*;	Hydrastis canadensis
Licorice;*	Glycyrrhiza glabra, also Liquiitia officinalis
Poke Root;	Phytolacca americana, P decandra
Shosaikoto® preparation	Consisting of various herbs

Herbs marked with an asterisk have been extensively studied by the scientific community. However, one should always be aware that some herbs may have adverse side-effects in some circumstances. When licorice is used (>3g/day over 6 weeks) it may cause sodium and water retention, hypertension, hypokalaemia, suppression of the renin-aldosterone system. This could be mixed with herbs with a high potassium content (Calendula, Couchgrass, Cranberry, Dandelion, Fennel, Horsetail, Ribwort) The remaining herbs mentioned seem to be safe.

Evening Primrose Oil

Supplementation of Evening Primrose Oil 2-4 grams per day would be essential in any alternative treatment program.

The role of essential fatty acids in scleroderma and other collagen disease can not be overstated. Uncontrolled inflammatory reactions are caused by an overproduction of hormone-like local chemicals called prostaglandins series 2 (PGE2), which mainly derive from arachidonic acids in milk, eggs and meat products. Prostaglandins series 1 (PGE1) derive from omega-6 linoleic acid contained in, for instance, sunflower seeds, wheatgerm, corn oil and walnuts. Another group of prostaglandins series 3 (PGE3) derives from omega-3 linolenic acid (for instance, from flaxseed oil, pumpkin seeds, walnuts and green leaves) and fish. The latter series 1 & 3 prostaglandins in contrast to series 2 prostaglandins have anti-inflammatory features.

These hormone-like substances are extremely active with a whole range of properties[7] such as:

- prevents platelets stickiness
- is vasodilator, improves blood circulation
- inhibits inflammatory reactions
- lowers blood pressure
- inhibit excessive cholesterol production
- helps in stored fat-burning
- improves the effects of insulin
- activates T-lymphocytes in the immune system
- inhibits abnormal cell proliferation
- appears to have neurotransmitter effects

Allergic individuals, diabetics, depressives, alcoholics and people with atherosclerosis (hardening of arteries) are found to have low levels of PGE1. Supplementation with EPO is claimed to inhibit free radical formation of collagen diseases[8]. For a full discussion of prostaglandins the reader is referred to a previous article in this Newsletter of September 1996.[9] The importance of Evening Primrose Oil lies in the fact, that patients with scleroderma most likely have a defective delta-6-desaturase enzyme, which converts omega-6-linoleic acid to gamma-linolenic acid (GLA). This is the fore-runner of the anti-inflammatory prostaglandins series 1 (PGE1). Evening Primrose Oil contains about 10% of GLA thus enabling us to bypass this blockage.

Nutritional supplements are vitamin C, bioflavonoids, proteolytic enzymes (away from meals on empty stomach), digestive enzymes, with meals if necessary, calcium, magnesium, Zinc, possibly iron[10], managanese[11], essential fatty acids (EPO and fishoil), amino acids: L-cysteine, L-methionine, L-cystine, beta-carotene, vitamin A, vitamin E, B-complex including vitamin B5, B6, B12 (intra-

muscular injections 1,000mcg, IM two times weekly), selenium, hydrochloric acid and/or bicarbonate under doctor's supervision, Pancreatin, Bromelain, Papain.

There are a host of **botanicals** that have digestive and anti-inflammatory properties, and the reader is advised to consult a qualified herbalist. Dr Werbach et al.[12] mention two studies with Lupus patients using the glycoside extract of the decorticated root of Tripterygium wilfordii (Yellow wine root, or Spindle tree) with various degrees of improvements of symptoms. Side effects generally occurred in the early part of treatment and tended to disappear after a few days.

Herbs in **Table 1** have immuno-stimulants properties and readers are advised to consult a qualified herbalist for further information.

FOOTNOTES

1) Raynaud's disease is a disease common among young women, in whom the fingers and toes become cold and white, or blue, when exoposed to cold. When cold they may tingle or be painful. The cause is spasm of the arterioles supplying the extremities with blood but why this should happen is not clear.
2) Results in one study have shown a selective and significant defect in sulphur metabolism in patients with Systemic Lupus Erythematosus, that would affect the biosynthesis and repair of connective tissues. Gorden C, Bradley H, Waring RH, Emery P (1992), Abnormal sulphur oxidation in systemic lupus erythematosus, **Lancet 339,** 25-26
3) Coeliac disease is a genetic inability to hydrolyze (split) peptides contained in gluten.
4) Reading C.M & J Sulima, (1995) "The rheumatoid arthritis/schizophrenia connection" **The Hypoglycemic Health Newsletter**, Dec 1995, p 5.
5) See Dr George Samra's list of avoidances **The hypoglycemic Health Newsletter, March 1996** p 10.
6) The Burton Goldberg Group (1994), **Alternative medicine,** Future Medicine Pub Inc. Puyallup, Washington, p 946
7) Davies, S & Stewart A (1987), **Nutritional Medicine,** Pan Books, Page 113
8) Das UN, Ramesh G, Kumar GS et al.(1992), Free radicals, lipid peroxidation and essential fatty acids in patients with pneumonia, septicaemia and collagen vascular diseases, **J Nutr Med 4,** 117-127
9) Plesman, J (1996) Hypopglycemia and essential fatty acids, **The Hypoglycemic Health Newsletter, Sept 96,12(3):** 7-13
10) There are some animal studies to show that in Systemic Lupus erythematosus (LSE) iron status plays an important role in the disease, and this should be properly tested by a doctor. Leiter LM, Sherman AR (1994), Differential effects of iron status on lymphocyte subsets in lupus and non-lupus strains of mice, **Nutr Res 141,** 407-422.
11) Hydralazine (an anti-hypertensive drug) has been shown to deplete manganese in patients, who then developed lupus-erythematosus-like symptoms. Some patients with lupus have responded positively with manganese supplements which suggests that Mn may be involved in immunoglobin synthesis. Editorial (1988), Manganese deficiency in humans: fact or fiction?, **Nutr Rev 46(10):** 348-353
12) Werbach, MR, Murray MT (1994), **Botanical influences on illness,** Third Line Press, Tarzana, Cal., 234

Tribute to
William Vayda

William Vayda unexpectedly passed away on the 1 February 1997 from a cancer related illness. This Association wishes to record our warm memories of Bill Vayda, not only because he is one of Australia's best known pioneer in clinical nutrition and orthomolecular psychiatry, but also Bill was ever ready to give his free time to come and give us a lecture in his area of expertise.

When I was working as a Probation and Parole Officer at Long Bay Gaol we organised a series of lectures to doctors and staff at the gaol. Bill Vayda did not hesitate to participate and he gave a brilliant talk on the relationship between nutrition and behaviour to an audience, consisting of doctors, nurses, custodial staff, probation and parole officers, welfare officers and drug counsellors. The idea that the food we eat might have something to do with the way we behave and feel was totally foreign to most members of the group, and often still is.

Bill was a dazzling speaker who was able to explain scientific principles from the lofty heights of biochemistry in terms easily understood by the uninitiated. No doubt, his sense of humour and fertile imagination made his talks not only informative, but also entertaining.

Bill Vayda's astute mind is evident in his many writings. Among the books he wrote are: *Are You Allergic to the Twentieth Century?; The Candida Question and Answer Book; Health for Life; Chronic Fatigue: The Silent Epidemic; Psycho-Nutrition;* all of which are available in public libraries. Dr Vayda's weekly health column appeared in the Sydney *SUN* for many years. He was also editor of *Nature and Health* magazine and of *Wellbeing.* He appeared frequently on radio and television.

A graduate osteopath, William Vayda first became interested in the role of nutrition in psychiatry and obtained post-graduate diplomas in nutrition-naturopathy, acupuncture and clinical hypnotherapy.

He was the President of the International College of Applied Nutrition (Australia) and a member of the International Association of Orthomolecular Medicine, the Australasian Society of Osteopaths, the Complementary Medicine Association and the Australian Natural Therapists Association (ANTA). He worked in close association with other complementary doctors in the assessment of viral activity, nutritional balance, chemical sensitivity and immunology and produced scientific evidence of the role of chemical overloading in a group of Chronic Fatigue patients.

But to most of us, William Vayda will always be remembered as one of the early pioneers of orthomolecular medicine at a time when orthodoxy would treat such practitioners with contempt. Thanks to William Vayda, and others of his ilk, mainstream medicine is now accepting much of these teachings. The movement for natural medicine would not be where it is today without the unfailing drive and enthusiasm of William Vayda.

Genetically Engineered Soya Beans

By Editor

A recent article in **CHOICE Magazine** of February 1997 alerted us to the fact that the practice of introducing genetically engineered food items into our food chain is becoming widespread. According to the article a new product manufactured by Monsanto and called *Roundup Ready Soybean* has been developed by adding genetic material from a virus, a bacterium and a petunia plant to the soybean plant. This would make the bean resistant to the company's own weed-killer, *Roundup,* so it can be sprayed on the soybeans without killing it.

Predictably, the *Australian Food Council,* which represents many of the manufacturers and food processors, asserts that the 'gene bean' is exactly the same as the natural bean and that it can be used in processed foods without notifying anybody. If this were the same, why change it?

The manufactured bean ends up in an incredible variety of food items such as chocolate, margarine, biscuits, bread, sauces, instant milk products, pancake flours, cheeses, pie crusts, frozen deserts, meat products, cooking oils and so on and on.

Genetic engineering is a process whereby cells of plants and animals are changed by altering their DNA, the genes of which carry the cells' characteristics to the next generation of cells in plants and animals.

DNA can be changed by introducing genes from different species into the plant or animal thereby changing its very nature for better or worse depending on who is to benefit.

From a nutritional and consumer's point of view, the concern is that by altering the biomolecular structure of foods, proteins may be broken down into peptides which are foreign to our digestive system which has evolved in harmony with its natural environment over

millions of years. This would be of considerable importance to those people with a compromised immune system and who are prone to allergies.

The argument that there is no cause for concern in the consumption of the new 'gene bean' is hollow. The Dutch government has passed legislation that all products containing the 'gene bean' be labelled so as to give consumers at least a choice.

CHOICE magazine encourages readers to write to:

- Senator Bob Woods, Parliamentary Secretary to the Minister for Health and Family Services, Parliament House CANBERRA 2600 Phone (06) 277-3490, Fax (06) 277-3577
- Ms Marion Sheers, Regulatory and Communications Manager of Biotechnology, Monsanto Australia, PO Box 6051, St Kilda Rd Central, Victoria 8008, Phone: (03) 9522-7122, Fax (03) 9525-2253, asking Monsanto to provide community information on the 'gene bean'.
- Asking Manufacturers and Retailers to label foods that contain 'gene bean' by contacting:

  Mr Mitchell Hooke, Executive Director, Australian Food Council, 2-4 Brisbane Ave, BARTON 2600 Phone (06) 273-1466, Fax (06) 273-1477 and
- Mr Bruce Bevan, Executive Director, Australian Supermarket Institute, 20 York Street SYDNEY 2000, Phone (02) 9299 6126, Fax (02) 9290-1045.

By subscribing to ***CHOICE Magazine*** (Phone: 9577-3399) you help in the campaign for labelling of the 'gene bean' and other genetically engineered foods on the market.

Antioxidants - their role in cancer

By CSIRO

Division of Human Nutrition
Contact: Dr Ivor Dreosti
(08) 224 1837

Antioxidants in food, which include the micronutrients vitamins A, C, E, and the yellow coloured caretenoids help to counter the detrimental effects of oxygen free radicals, which are formed naturally as a consequence of normal metabolism, and by external factors such as x-rays, ultra violet radiation and pollution.

Increasingly, oxidative damage has been implicated in the development of several degenerative disease including cancer, thus highlighting the need to ensure replete antioxidant status as a central feature of preventive medicine. In addition however, it has been proposed that extra health benefits may derive from above-average intakes of these compounds.

While generally supported by laboratory studies, the hypothesis has also gained credibility from extensive epidemiological evidence which points to significant protection against general degenerative diseases by high intakes of antioxidant-rich foodstuffs such as fruit and vegetables. However, such assumption overlook the many other non-nutrient antioxidant and protective substances in plant foods which are currently attracting increasing research interest.

More information is clearly needed concerning the relative antioxidant potencies of the non-nutrient antioxidants as well as the different forms of conventional antioxidants. More also need to be known about their distribution and functionality within the cell, and the potential which exists to influence this distribution by dietary means. Such studies form a focus of the research activity currently under way in the Cancer and Nutrition Program of the CSIRO Division of Human Nutrition, where efforts are being made to evaluate the importance of the lesser known antioxidants in plant foods as anti-cancer agents, and to establish the levels of intake of the established nutrient antioxidants needed to protect cells against naturally occurring and induced damage to genes and the attendant risk of cancer.

Prevention of overt deficiency disease is no longer the sole nutritional objective as increasing interest is focussed on the use of selected phytochemicals to ensure optimal health and maximum protection against degenerative disease.

Health Freedom under Threat

By Editor

There are some alarming reports on the Internet. One report by John Hammell (http://www.all-natural.com/codex-3.html) claims that pharmaceutical companies like Hoechst, Bayer, BASF and others are using the international *Codex Alimentarius Commission* to "create a set of international standards to guide the world's growing food industry and to protect the health of consumers". Dietary supplements would be subject to international standards under GATT. Dietary supplements will be banned unless they have undergone a cost prohibitive drug approval process. The plan hopes to make supplements available only through registered pharmacists as is the case already in Germany, Norway and Spain.

According the Japan's Health Business Magazine 1995 (quoted in Nutrition Business Journal, Sep 1996, p.23) domestic sales for vitamin products are expected to reach $3 billion in Japan. No wonder pharmaceutical companies would like to cash in on this lucrative business.

THE HYPOGLYCEMIC HEALTH ASSOCIATION
P.O.Box 8, SYLVANIA SOUTHGATE NSW 2224

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RENEWAL ☐ **Occupation** _____

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Do you have hypoglycemia? YES/NO Does a family member have hypoglycemia? YES/NO

1997 *MEETING DATES*

1st MARCH - 7th JUNE - 6th SEPTEMBER - 6th DECEMBER