

# 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.**

We will celebrate the end of the first year of this millenium with a big CHRISTMAS PARTY on the 2nd December 2000 . See page 2 on how you can contribute to make this party a success. Thanks to the generous donations by professionals, this Association has survived financially this year and the Committee has postponed the unpleasant decision to increase the annual subscriptions for another year. Our new energetic Treasurer, Sue Litchfield, has several plans to increase our income by organizing more attractive raffles and members should give their full support. Members' annual fees are and will remain our mainstay for the continued existence of the Association and members are asked to forward their annual fees (\$20 p.a. & \$15 p.a. for pensioners and students) by copying and filling in the application form on the last page of the Newsletter. Members are encouraged to recruit new members by lending out their Newsletters to friends and doctors.

Attention is also drawn to our new web site at: <[http://www.companyontheweb.com/hypoglycemia\\_australia](http://www.companyontheweb.com/hypoglycemia_australia)> that has already attracted more than 300 hits in a short space of time. It includes copies of our Newsletters and contains articles on clinical nutrition, recipes and a section on *Psychotherapy*. Our thanks go to Amitee Robinson for helping design the web site (She can be contacted per web site).

Our mission is to educate and inform members of developments in complementary medicine, so as to empower people to better control their health. Natural medicine has a lot to offer in almost all areas of degenerative diseases.

Our Next Public Meeting will be at 2.00 PM  
on Saturday, the 2 December, 2000

at **YWCA**

5-11Wentworth Ave, SYDNEY

and our guest speaker is

***Daniel Baden***

who will be speaking

on the subject of

***“Hepatitis C - A Naturopathic  
Approach”***

**Daniel Baden** is a Naturopath with 15 years experience. He has lectured in clinical nutrition to undergraduates at the major Sydney Naturopathic colleges since 1990. Daniel also presents regular seminars to his peers around Australia and to other interest groups. Daniel has published articles on several topics including Osteoporosis and Vaccination and now writes a regular column in Wellbeing Magazine. Daniel has been the "Guest Naturopath" on several television shows and enjoyed and "stint" on radio in a talk-back health program. Daniel is the Director of Traditional Medicine Supplies and Phytocare, and acts as a consultant to several other Nutritional and Herbal companies.

## Christmas Party

Our next meeting at the YWCA, 2 Wentworth Ave, Sydney will start one hour earlier at 1 pm on 2nd December 2000.

Please bring along a plate of sugar-free foods. **Presents:** The Committee asks everyone to participate in the Lucky Dip. Bring a wrapped present worth about \$5.00 with you and mark it "male" or "female". These will be placed in special bags as presents to your fellow members. Even if you don't, you will not be disappointed!!

There will be presents for kids, and they are welcome.

### Books for sale at the meeting

Sue Litchfield: **SUE'S COOKBOOK**  
Dr George Samra's book

#### **The Hypoglycemic Connection**

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

Jurriiaan Plesman: **GETTING OFF THE HOOK**

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

*The Newcastle branch of the Associa-*

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

*tion* are still meeting with the assistance of Bev Cook. They now meet at ALL PURPOSE CENTRE, Thorn Street, TORONTO. Turn right before lights at Police Station, the Centre is on the right next to Ambulance Station. For meeting dates and information ring Mrs. Bev Cook at 02-4950-5876. At the next meeting on 25/11/00 at 1.30 pm Dr George Samra will be speaking on "Depression".

### Entrance fee at meetings

Entry fees for non-members will be \$5.00, members \$3.00 & families \$5.00

### 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 or Sue Litchfield at 9971-5657 or (litch.grip@bigpond.com).

At the last meeting on the 2 Sept 2000, Nada Bartulovich won the raffle. The prize was a 12-month subscripion to BURKE'S BACKYARD MAGAZINE. The lucky door prize was won by Royce Burkett.

### Fund raising activities

We need money, ideas, donations, bequests (remember us in your will), donations over \$2 are tax deductible.

Lyn Grady of Nowra has generously donated two hand-knit jumpers and poncho all of which have won first and second prizes in regional competitions. We thank her for her thoughtful donation. All of these have now been sold for a total of \$200 at Dr Samra's surgery where they were on display. The moneys received were donated to the Association.

Attention is drawn to our new Web Site at:

**www.**

**companyontheweb.com/  
hypoglycemia\_australia**

where you'll find articles on clinical nutrition and self-help psychotherapy. Copies of Newsletters are also available.

## Letter from the Treasurer

I would like to thank all those who helped out with the afternoon tea at the last meeting. It made life a lot easier for us all on the committee.

The raffle was a great success and raised over \$50. For those who were not at the meeting we were lucky enough to have a year's subscription of Burkes Backyard Magazine donated which was a very generous donation. **Many thanks to the publishers of Burkes Backyard magazine.**

The subscriptions for next year are due at the next meeting. The committee has decided not to raise the subs for the next year. This is due mainly to those who have so generously donated to the society during the year. We have now had \$873 donated so far this financial year. Many thanks to you all. **Please remember that all donations over \$2 are tax deductible.**

I would think it is of more benefit to the hip pocket to give a donation than to pay the money in fees.

If anyone has a favourite recipe or a handy hint please do not be afraid to send them in as it is great to have a few fresh ideas.

Looking forward to meeting all those new members and meeting up with the old ones at next meeting.

Sue <litch.grip@bigpond.com>

## Story by Joy Sharp

"I was always sick and I asked my General Practitioner to send me to an allergist. He was not very enthusiastic about it, but I did go. At the same time I was seeing a chiropractor and he had an idea that I was hypoglycemic. He suggested that I speak to my allergist about this and I was sent for a Glucose Tolerance Test. When the results came through he sent me to see Dr George Samra. This is how my association began with the Hypoglycemic Health Association. I have been a patient of Dr George Samra since 1984 and he diagnosed that I was suffering from Reactive Hypoglycemia, Chronic Fatigue Syndrome, plus Osteoarthritis, in addition to many food and chemical sensitivities.

Being a very mature lady I don't respond like a young person, but I do manage to keep control of the hypoglycemia most of the time.

As far as the chronic fatigue syndrome is concerned it all depends on how well I pace myself and the food sensitivities I have to watch very carefully.

In all I manage with the aid of an understanding Dr George Samra, an osteopath and quite a few supplements.

Being interested in cooking I regularly supply sugar-free, low allergenic recipes to the Hypoglycemic Newsletter, as well helping out with the catering at our public meetings, and Committee meetings.

I was the treasurer of the Association for 7 years and I am still an active Committee member."

## Recipes

by Sue Litchfield

### Barley Tea

2/3-cup pearl barley  
8 cups water

Preheat the oven to 180 C. Spread the barley onto a large baking tray and cook in the preheated oven for 10-15 mins or until the barley is toasted and aromatic.

Bring the water to the boil in a large saucepan when boiling add the barley and allow to simmer partially covered for 30 mins or until the barley is very tender.

Strain the tea into a large heatproof jug or teapot. Discard the barley.

Tea maybe served hot or cool

### Barley Water

1 litre water  
2/3 cup Barley  
Finely peeled rind of a lemon

Wash the barley thoroughly.

Place all ingredients in a saucepan and boil for gently for 1 hour. Strain and sweeten to taste using sweetener of choice.

I like pear concentrate

This is great served cold in the summer. This drink was always served in the old days, as it will sustain life

*Continued on Page 12*

# Understanding Toxaemia – Hidden Havoc

By  
Roger French

Adapted from Chapter 4 of Roger French's book:

*The Man who Lived in Three Centuries*

Why is every second person in Australia suffering from a chronic or recurring illness?

Orthodox medicine tends to look for a germ of a particular disease (though not for chronic or degenerative diseases), and where no germ can be found, the cause may be given as unknown. Natural Health sees a completely different picture. Recognising that almost all illnesses today are diseases of civilisation – which means diseases of lifestyle – the underlying causes of our vast range of health problems, plus premature ageing, become perfectly clear.

The basic causes of illness are to be found in everyday living. Modern diet, stress, lack of exercise, and man-made chemicals are the four key areas.

There is an almost inevitable progression from modern lifestyle ... to deterioration within the body ... to disease. Understanding this enables us to gain control of our physical and mental wellbeing.

In turn, this understanding is enhanced by three basic principles which are considered to be natural laws that *underpin* human health and provide the key to the means of *restoring* and *maintaining* health.

## Three Fundamental 'Natural Health' Principles

During the last 100–150 years a number of prominent individuals working in the fields of 'Nature Cure' and naturopathy have formulated their ideas and observations into philosophies, theories and principles relating to health. Although there may have been disagreement on some of the details, mostly there is a great deal of accord, and a common creed or set of principles could be drawn up with ease. Of these principles, the following three would have to be considered the most important and illuminating:

**Principle No.1** *Good health is the normal state and should continue from birth until death. Illness and premature ageing will not occur unless we do something to cause them to occur.*

**Principle No. 2** *Broadly speaking, disease is not an attack on the body by some foreign agent. Rather it's the body's defences at work attempting to preserve the status quo of good health.*

This principle depends on an understanding of the natural relationship between germs and humans. That germs are *not* the primary

cause of disease is elucidated in the next chapter.

**Principle No.3** *The human body, given the right conditions, is an efficient self-healing mechanism. We all know that a cut on the skin will heal, but what about damage to internal organs? They have just the same ability to heal.*

This principle is explored in the sections of this chapter that follow. The separate question of how to bring about self-healing is the subject of Chapter 15.

Having seen in Chapter 2 the phenomenal health of populations that were isolated from the Western world, it is easier to accept the first principle, which is *absolutely* fundamental. Arthritis, obesity, heart disease, stroke, osteoporosis, colds, flu, skin disease, etc, rarely arise because of defects in the human body; they occur because we unwittingly make them happen.

Let us now start at the beginning of what, according to Natural Health theory and experience, causes illness – or, better still, what causes health – and look at how diet, stress, exercise and chemicals affect body and mind.

## Toxaemia From Food and Chemicals

For many individuals, at the top of the list of these lifestyle aspects is the typical modern way of eating, which is too concentrated, supplying an excess of fat, protein and refined carbohydrate, is deficient in fibre, vitamins and minerals, and contains food additives, pesticides and stimulants such as coffee, tea, salt, pepper and alcohol. (Alcohol depresses the mind but stimulates elimination.) There will be more on the modern diet in Chapter 6.

The inevitable result of this kind of eating is that toxic waste-products of metabolism are formed more rapidly than they can be eliminated by the liver and kidneys and so build up in the body. This condition is referred to in Natural Health as 'toxaemia' or 'acidosis' – because the wastes tend to be acidic in nature and so tissue fluids become more acidic than they should be. (Note that in conventional medicine, the word 'toxaemia' is used to relate to specific conditions.)

Synthetic chemicals, including air and water pollutants, pesticides, food additives and drugs, are often toxic and contribute to toxaemia. Chemicals are the subject of Chapter 11.

Lack of exercise (see Chapter 10) means

that circulation is sluggish and is not given the regular boost that is needed to flush waste products out of the tissues and to the eliminative organs for detoxification and removal from the body. Poor tone of muscles and organs results from lack of exercise as surely as night follows day.

Stress and inadequate sleep devour vital nerve energy and leave insufficient available for normal activities that include digestion, assimilation of nutrients and elimination of wastes. As a result, waste products build up even more quickly and the toxaemia increases further. (Stress and sleep are the subjects of Chapter 9.)

The effect of negative attitudes such as anger, resentment, bitterness, intolerance and greed may be likened to putting grit in the bearings of an engine – our systems wear out sooner. In contrast, positive attitudes such as love, kindness, tolerance and generosity oil the bearings for smooth running. Negative attitudes indirectly contribute to toxaemia.

In coping with the demands of everyday living – plus the toxins – overworked organs and tissues become exhausted or, more correctly, enervated (depleted in nerve energy). Enervation diminishes elimination, which further increases the toxaemia, so a vicious cycle is created. The combination of toxaemia and enervation is the basic cause underlying most disease. There are no doubt other specific causes, but the toxaemia that is just about ubiquitous in Western peoples is almost always a prerequisite.

## How Do We Know If We Are Toxic?

Toxaemia comes in all shades of grey, ranging from a little to a lot, and the first thing each of us will want to know is – how toxic am I? Unfortunately, there is no easy way to find out. In fact, it is possible to be in quite a 'polluted' state and be unaware that anything is wrong. Probably the most reliable indication is provided by iridology (analysis of the iris of the eye), when conducted by a skilled practitioner.

However, there are certainly signs that the individual can look for to gain an idea. Here are some of the more obvious ones, any of which may be present.

- Constantly feeling unwell, off-colour, a bit 'crook'.
- Always tired, as though your batteries were flat. The extreme case is chronic fatigue syndrome.

- Repeated minor ailments, like colds and headaches. You appear to 'pick up' infections easily.
- It's an effort to drag yourself out of bed in the morning and you need coffee to get going.
- The breath is off and it's not due to problems with teeth.
- There is body odour that returns soon after showering.
- The tongue is coated, especially first thing in the morning.
- Wound healing is poor; the smallest cuts become inflamed and remain so for days.
- There are persistent aches and pains that are not due to physical injury or muscle or joint strain.
- There is degenerative disease.

### **Colds and Flu Are Our Safety Valve**

If the internal pollution continued to build up indefinitely, life would eventually be threatened. But the incredibly complex human body is well designed to cope with adversity and does not allow this to happen. Instead, when its tolerance limit is reached, the body opens up an *emergency* channel of elimination to siphon off some of the toxemia.

Most commonly, toxins are sent to mucous membranes in the nose, which are conveniently close to the exterior. The mucous membranes become highly irritated, inflamed, swollen and painful, and mucus is secreted copiously to literally wash wastes out of the body. This process is none other than that of the common cold or, when more severe, influenza.

The same process can occur in other regions of the body, but is given different names. If it occurs in the voice box it is called *laryngitis*; in the bronchial tubes, *bronchitis*; in the lungs, *pneumonia*; in the stomach, *gastritis*; in the small intestine, *enteritis*, and in the bowel, *colitis*. These are all different names for the same basic process – an emergency elimination via mucous membranes. If the elimination is via the skin, where mucous membranes are not involved, the condition will be called dermatitis, eczema, psoriasis and so on.

After the elimination has finished, the body is able to function at a higher level with more energy, that is, more *normally*. The person feels better than they did before, as though they have had an inner spring-clean – and indeed they have. The symptoms of acute disease are simply the outwardly visible signs of tissue cleansing and self-healing at work restoring the status quo.

By now it may have occurred to the reader that germs have not even been mentioned among the causes of these so-called viral or bacterial illnesses. So what part *do* germs play in the causes of disease?

### **Germs Are Nature's Scavengers**

Germs certainly do have a role in disease, but there is a subtle shift in thinking away from the conventional germ theory. This makes all the difference in the approach to treating the illness.

The germ theory sees micro-organisms – bacteria, viruses, fungi and protozoa – as the

*primary* causes of the diseases with which they are associated, and the development of an infectious disease as a matter of chance and/or low resistance.

The classic Natural Health theory, which has been developed over a century by doctors and natural therapists, sees the germ as being the *secondary* agent of disease, only able to gain a foothold in a body which is already congested with toxemia, the toxemia being the *primary* cause of disease. As the leading microbiologist, Professor René Dubos, has said, germs normally cannot and do not attack healthy tissue. They can only become viable, grow and multiply in a body that has some degree of internal pollution.

The best way to visualise the role of germs is with a simple analogy. Consider a garbage can. If the can is full of garbage, there will be rats and flies around it. We can shoot the rats with a rifle and spray the flies with poison, but as long as the garbage is there, rats and flies will keep coming. On the other hand, if we tip the garbage out and wash the can, there will be no rats or flies appearing and we won't need to fire a single shot or spray any pesticide to be free of them.

So, drawing a comparison with the human body, if it is heavily congested with waste products, there will periodically be germs feeding on those wastes, manifesting as bouts of infectious disease. We may be able to destroy the germs by squirting shots of penicillin, etc, into the body, but as long as the toxemia is there, the bouts of illness will continue to occur.

If, on the other hand, we allow the body to detoxify by facilitating self-healing, there will be no disease and we won't need to use a single shot of penicillin (or other antibiotic).

The difference between the two approaches is vast. Unfortunately the antibiotics destroy not only the pathogenic (disease-associated) bacteria but also the beneficial or 'friendly' bacteria in the bowel that are of paramount importance to health. These 'friends' produce B-vitamins, digest dietary fibre and protect us against pathogens. Their partial destruction allows *Candida albicans* to flourish, setting the stage for Candidiasis and the symptom thrush. In addition, the antibiotic (meaning 'against life'), being itself toxic, contributes further to the toxemia which was the original cause of the illness in the first place. This is hardly the way to restore genuine health!

The most recent worry with antibiotics is that their overuse is producing antibiotic-resistant bacteria, and this is ringing alarm bells among the medical profession and general community alike.

In contrast, nature's way is not only preventative against further infectious disease, but also contributes to an improvement in long-term health and vitality.

The way to facilitate cleansing and self-healing is through short periods on 'cleansing' diets such as fresh fruit juices or whole fresh fruit. If it is possible to reside at a Natural Health centre, such as Hopewood Health Centre (see Chapter 1), a closely supervised programme can be expected to bring the most rapid improvement.

How to cleanse your system at home will be explained in Chapter 15.

What determines the body's capacity for detoxifying and healing is vitality, the all-important key to restoring normal function and abundant energy.

### **Vitality the Key to Healing**

Vitality is defined as vital power, the ability to sustain life, to endure and perform functions. The vitality we are concerned with is not necessarily that which manifests as physical activity, but rather the available energy of the tissues for performing their functions, especially healing.

The general pattern is that *vitality is at a maximum at birth and declines throughout life to zero at the point of death*. This decline is not steady; it is marked by localised rises and falls depending on the state of health at the time, which in turn depends on our lifestyle and environment.

The capacity for healing is directly proportional to vitality at any particular time. If vitality is low, detoxification and healing will be sluggish or unable to occur at all. When vitality is high, these processes will be prompt and powerful and as a result symptoms will be more severe, though short-lived.

So a high-vitality person with low-level toxemia may develop no symptoms at all. If this person has toxemia aplenty, fever may develop and be quite high but all over in a couple of days. This is what commonly happens with children, who normally have greater vitality than adults do.

A low-vitality person with low-level toxemia may feel unwell but otherwise have no symptoms. They are literally *too sick to get sick*. When the toxemia increases to substantial levels and illness finally manifests, this person may be sick for weeks or may become chronically ill.

The human body is extremely complex and there are numerous factors that affect health and vitality, so there will be plenty of exceptions to the classic examples above. These are simply the general patterns that have been observed for over a century by naturopaths and lifestyle-minded doctors dealing with many thousands of patients.

### **We Get Worse Before We Get Better**

In our daily lives, the operation of these principles can sometimes produce seemingly strange and disconcerting results. When we improve our way of eating, for example, we often *get worse before we get better*. We may develop a heavier cold or worse headache than we have had for a long time, hay fever may flare up or a skin rash get worse – *temporarily*.

If the symptoms are understood to be the signs of self-healing, the reason for them is fairly obvious. The improvement in lifestyle has brought about an increase in vitality and the body is now able to commence healing. The symptoms are the outward signs of getting the 'muck' out of the system and recharging the batteries.

Unfortunately, such symptoms are often misinterpreted as signs that the better nutrition is doing harm, so the person reverts to their former style of living. Through ignorance they are denying themselves the good health they are seeking, just when it is within their grasp. Had they persevered a little longer, they would have discovered that the symptoms were very temporary and that rewarding results were just around the corner.

Have you ever developed a minor ailment as soon as you went on holiday after a period of pressure, that is, as soon as you began to relax? The relief that the pressure is off gives a lift to vitality and a brief detoxification is initiated. The body is grabbing the chance to cleanse now that it has the energy.

Even minor improvements in lifestyle can bring about an increase in vitality sufficient to register as a rise in body temperature – for example, breathing fresher air, sunbathing, relief from anxiety, better sleep and so on.

Increased vitality commonly results in a cold, headache, skin rash, fever or the like, or occasionally vomiting or diarrhoea. The liver is capable of cleansing itself by producing excessive quantities of bile to act as a vehicle to carry away toxic substances. These may then be removed from the body by vomiting, accompanied by nausea. Very unpleasant, but this can be a life-saving mechanism.

One case history from the many success stories of Hopewood Health Centre was that of a man whose liver had lost 90% of its function and was constantly causing pain, due to pesticide poisoning. A doctor gave the man, David, only 6–12 months to live. During closely supervised cleansing, he vomited 47 times in three days, and in the vomit he could taste every pesticide he'd ever used as a market gardener. The pain disappeared and medical tests then showed that liver function had been restored to normal. The doctor described the result as an "astronomical improvement".

On follow-up two years later, David was alive – and well! As so often happens, he had become seemingly worse during the healing process, before getting better. In his case it saved his life.

Another factor that has a bearing on vitality is age, and this raises the subject of degenerative disease.

### ***Degenerative Disease Isn't Necessary***

The fact that vitality declines with age does not mean that we must eventually suffer degenerative disease, a belief that in Chapter 2 we saw was emphatically disproved by primitive peoples.

Continuing with an unhealthy lifestyle for many years, combined with the repeated suppression by drugs of the body's efforts to cleanse itself of toxemia, is, according to Natural Health theory, what produces degenerative disease.

The decrease in vitality as we grow older is compounded by the accumulating toxemia. There comes a time when our bodies no longer have sufficient vitality to cleanse themselves with a cold, the flu or similar minor ailment. The build-up of toxins escalates and eventually results in damage to organs or other tis-

ues. This is degenerative disease.

Depending on diet, stress, other aspects of lifestyle and inherited weaknesses, the degeneration may manifest as arthritis, osteoporosis, gallstones, cirrhosis, ulcers, high blood pressure, heart disease, stroke, diabetes, nerve damage or a host of other problems. By some mechanism that is now gradually coming to be understood, the degeneration may ultimately result in cancer (see Chapter 17).

There is a tendency for accumulated waste-products to be deposited in the joints, where they irritate joint membranes, which in turn respond with inflammation, pain and swelling – the symptoms of *rheumatoid arthritis*. At a later stage, or because of joint overload, the cartilage may be partly or wholly destroyed, and this is called *osteoarthritis* or, more correctly, *degenerative joint disease*.

When we understand toxemia, it is perfectly clear why rheumatism and arthritis in their various forms are the most widespread degenerative diseases in Australia, affecting one person in every six.

Fortunately, the same healing principles that apply to acute disease also apply to degenerative disease. If the cause is removed and vitality subsequently restored, the body will attempt to heal itself. Generally speaking, provided there is not total destruction of tissue, it will do so.

The time required for *full* recovery may be a matter of weeks, months or even years. Fortunately, the *initial* improvement is often immediate, which encourages the person to persevere. As a rule of thumb, it takes *approximately one month for each year of age to restore a high level of health*. However, the return to good health may be greatly accelerated by periods of nutritional cleansing under professional supervision at a Natural Health centre like Hopewood. (For an explanation of the power of self-healing, refer to Chapter 15.)

Such high proportions of people with degenerative diseases have been observed to overcome their problems that there is no doubt that much can be achieved. What is required is the right information and experienced professional supervision, plus determination and perseverance.

### ***Summary***

Good health is the normal state for the human body and under normal conditions should continue from birth until death.

The human body, given the right conditions, is a near perfect self-healing mechanism.

Infectious disease is not a chance attack on the body by some foreign organism. Generally speaking, it is part of the body's defence processes at work.

The primary, *underlying* cause of most acute and degenerative diseases is toxemia resulting from modern lifestyle.

The body's ability to heal depends directly on its level of vitality. The higher the vitality, the faster and more powerful the healing.

Improving lifestyle increases vitality and elimination of toxins, which may bring about symptoms. These are but *temporary* and are often wrongly interpreted as a sign that the lifestyle changes are doing harm. We often get

worse before we get better.

Degenerative disease results from repeatedly suppressing minor ailments and persisting for many years with a lifestyle for which the human body was not designed.

Old age is **not** synonymous with disease. Disease is more common only because of the accumulated effects of modern lifestyle.

It is in our own hands to maintain high-level physical and mental wellbeing to a ripe old age, if we wish.

## ***About the Natural Health Society of Australia***

The Natural Health Society is a health education organisation explaining how best to achieve genuine long-term health and wellbeing for greater enjoyment of life and enhanced peace of mind.

The Society is not-for-profit, non-sectarian and non-political, with no vested interests. It was established 40 years ago in 1960.

Its primary objective is to promote better health in the community on the basis that prevention is better than cure.

The Natural Health approach is very different in many ways from that of orthodox medicine. Instead of attempting to treat the symptoms in the belief that symptom-free equates to health, Natural Health focuses on removing the underlying cause and encouraging self-healing, that is, it treats the whole person. And unlike drug therapy, the only side effects of correctly applied self-healing are better health all round.

The Society produces the magazine, *New Vegetarian and Natural Health*, jointly with the Australian Vegetarian Society. Besides providing invaluable information, the magazine, which is mailed regularly to subscribers, is a most effective form of motivation to keep looking after ourselves sensibly, and without fanaticism.

### ***Other benefits include discounts at:***

- selected health food stores and restaurants;
- the Society's mail-order bookshop;
- Natural Health Society seminars; and with many natural therapists.

To subscribe to the Natural Health Society, simply write it to:

**Natural Health Society of Australia**  
28/541 High Street  
Penrith NSW 2750

Phone 02 4721 5068  
Fax 02 4731 1174

**Continued --->**

ABOUT THE BOOK,  
**THE MAN WHO LIVED IN THREE  
CENTURIES**

- the secrets to his freedom from  
illness and early ageing

By Roger French

After almost dying of a heart attack at 34, Australian broker Eric Storm mended his life-style ways to enjoy another 70 years free of illness and full of accomplishment, with the year 2000 being the final turning point of a legendary life across three centuries.

Like most Australians, you may believe that illness is a normal part of life, and that after 40 or 50 years of age, we are inevitably over the hill.

Not so! Eric and thousands of other Australians, along with a number of primitive populations, have demonstrated beyond any doubt that we can be well for life if we choose.

A vast amount of research over the last century has explained why many earlier populations hardly knew illness ... until they adopted the Western way of living. The comparison is graphically illustrated with photographs in this book.

Illness and premature ageing are 'diseases of civilisation', that is, diseases of lifestyle. This means that we have virtually full control over whether our quality of life is woeful or wonderful.

Author **Roger French**, when in his twenties, was sick and tired of being sick and tired.

This led him to abandon civil engineering for a career in Natural Health, which has included seven years as manager of the Hopewood Health Centre at Wallacia, NSW, and the past 17 years as Executive Director and Health Director of the Natural Health Society of Australia.

Based on Roger and Eric's experiences, this book spells out a prescription for enjoying life free of pain and crippling, with tons of vitality and extended youthfulness - along with relative freedom from the fear of cancer, heart disease, stroke and other life-threatening conditions

By applying the guidelines presented, it is possible for most of us to revel in a quality of health that far exceeds our normal expectations.

## ***Nutritional Aspects of DEPRESSION:***

### ***An Update***

By

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**M**ost people may experience feelings of sadness and despondency, but when these feelings become intense and protracted we may well be considering pathological depression. This is especially so when no discernible external cause, such as bereavement or disappointment, can be related to the depression. This kind of depression is often called endogenous depression ("grown from within"), characterized by persistent anguished (dysphoric) mood, anxiety, irritability, fear, worry, brooding, appetite and sleep disturbances, weight loss, lethargy, difficulty in concentrating and feelings of utter worthlessness. The causes of the disorder are multiple and complex and may involve biologic, psychologic, interpersonal and sociocultural factors. Traditional treatment includes the use of antidepressant drugs, rarely now-a-days electroconvulsive therapy (ECT), then followed by long-term psychotherapy. Major depression affects up to one sixth of the population. Over the course of a lifetime, depression occurs in approximately 20 percent of women compared with 10 percent of men (Doris). Here we will mainly concentrate on the possible connection between depression and nutrition.

Depression is often a symptom of other disorders, as in schizophrenia or manic-depressive reactions. The brain being extremely sensitive is usually the target organ of the body to suffer first in nutritional disorders. Depression may also be accompanied by other problems, such as phobias. Psychotic depression is characterized by more severe symptoms. Typically, sleep is disturbed, with problems of waking up early in the morning. It may affect appetite and lead to anorexia (pathological loss of appetite) and decreased sex drive. Thus the causes are legion. **IF DEPRESSION IS SEVERE SEEK IMMEDIATE**

#### **ATE MEDICAL HELP!**

##### ***Psychological aspects of depression***

If a person is always frustrated in achieving his objectives and continually thwarted in his ambitions, it goes without saying that he may become depressed through sheer exhaustion. Although exhaustion is the physical aspect, failure to reach one's goals may be related to personality problems. Some authors argue that the greater prevalence of women's depression is due to the cultural limitations placed on women in society, and that this is more pronounced among those women who have experienced gender discrimination within their family. (Bhatia) Constant failure to achieve one's goal will lead to frustration and physical exhaustion. A person may not relate well with other people and find it difficult to get co-operation. He may have a perfectionist streak in him - never happy with the results of his own efforts, even less with those of others.

He may have communication problems either in sending messages to or receiving them from others. He or she may fail to be assertive in a way without upsetting other people or getting angry. Some unhealthy work environments contribute to depression.

All these can be related to a low self-esteem, which unwittingly puts a person on his defensive, provoking negative feedback from others.

If the depression is seen as being caused by psychological aspects or personality problem, a course in psychotherapy would be the most appropriate step. However, depression is often caused by ill-health or some metabolic disorder. Any conventional illness can contribute to depression and these should be eliminated in the first place.

##### ***Hypothyroidism as a factor in depression***

The thyroid glands located at the base of

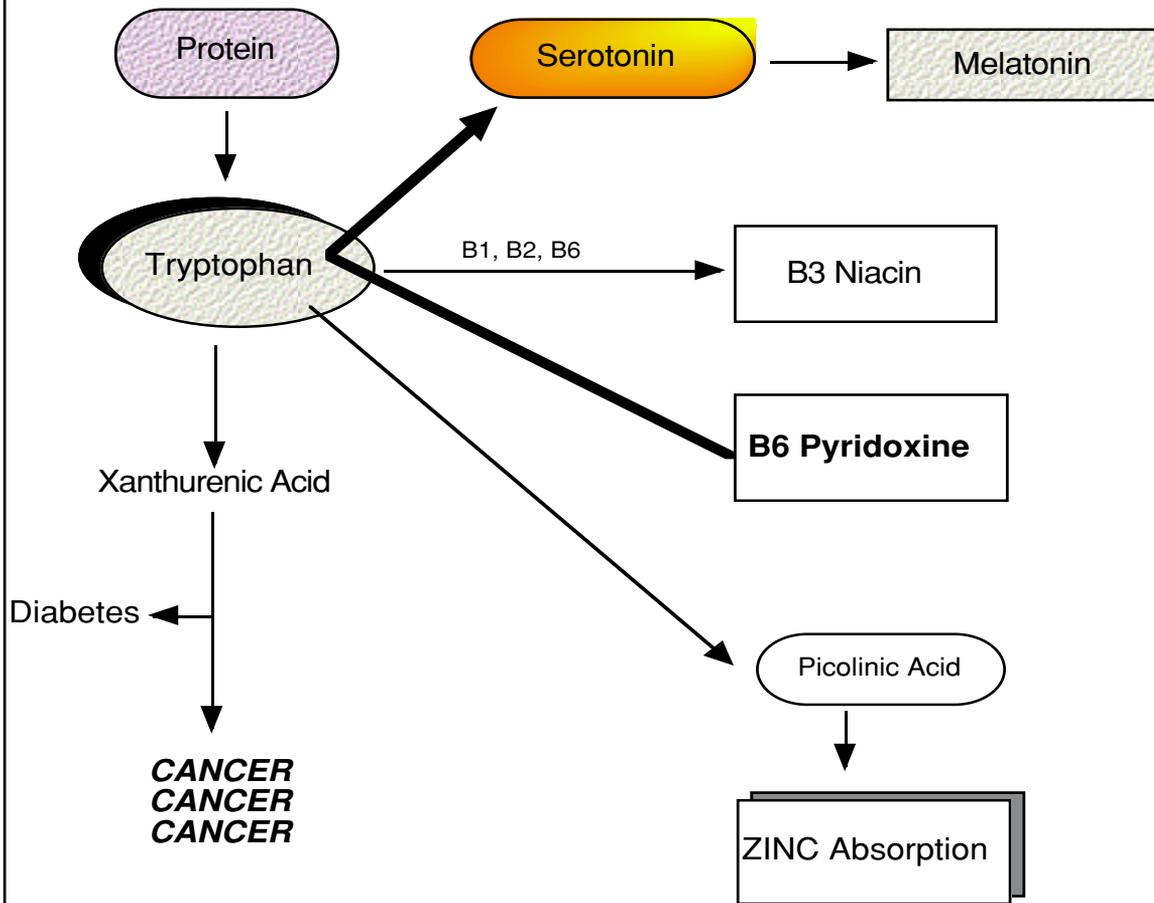
the neck control the rate of metabolism and all chemical processes of the body slow down in hypothyroidism. Hence, it is often associated with overweight and obesity. Low thyroid function may also be an important factor in chronic fatigue and depression. The incidence of this disorder increases after the age of thirty and is 5 to 10 times more frequent in females (Bhatia).

One way of testing hypothyroidism is to take your temperature in the morning before coming out of bed. If your temperature is consistently below 36.5C or 97.8F over a number of days, you could be suffering from hypothyroidism. Besides causing obesity other symptoms are; feeling cold when others feel warm, constipation, hoarseness, lethargy in the morning, depression, loss of hair, brittle nails, dry skin, sweaty palms and puffy eyelids. Incidentally, it is claimed that hypothyroidism may also be the cause of high cholesterol, blood circulation problems and heart disease (Barnes et al., 1976). It has also been associated with such disorders as diabetes, hypoparathyroidism (underactivity of the parathyroid glands with decrease in serum calcium levels, producing tetany), pernicious anemia (results from the inability of the bone marrow to produce normal red blood cells). This may also be due to a deficiency of B12 ('cyanocobalamin'), vitiligo (defective skin pigmentation), rheumatoid arthritis, myasthenia gravis (fatigue of voluntary muscles, especially those of the eye) and chronic hepatitis. Hypoglycemia - or low blood sugar levels - may also result from hypothyroidism. We will return to this later.

##### ***Treatment of hypothyroidism***

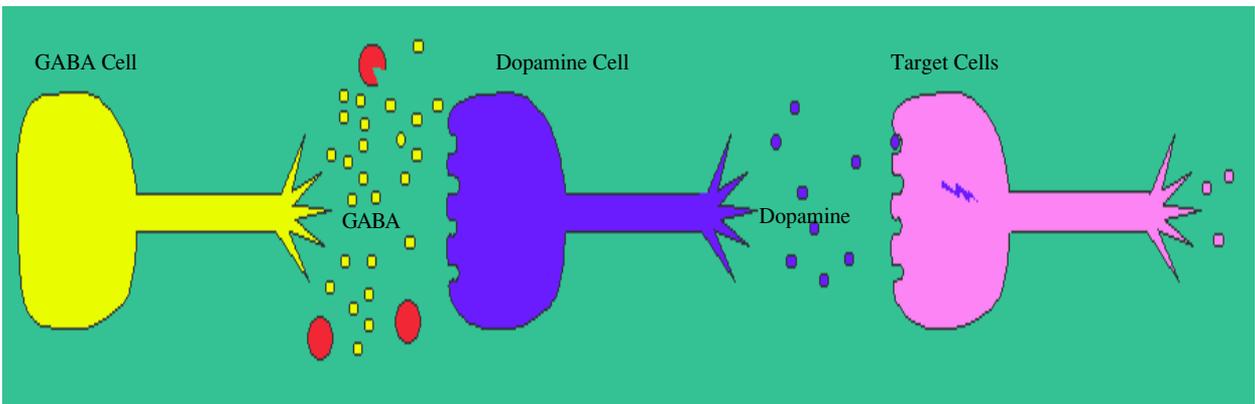
The doctor usually confirms the condition by a blood test, but most nutritional doctors believe that the laboratory tests are not accu-

Figure 1



**Rich Sources of TRYPTOPHAN (Mg/100g):** Mungo beans, Black 1340, Turkey, young with skin 790, Brewer's Yeast (GTF) 740, Pork, fried liver, 613.043, Soya flour, 550, pumpkin seeds, 522.17, Parmesan cheese, 500, Parmesan Cheese 490, Milk, dried skimmed 490, Soya flour, full fat 480, Soya beans, 450, Cashews 450, Cashews, 430, Edam Cheese 30% fat 400, Edam cheese, 385.71, Camembert cheese 370, Peas, seed, dry 350, Brie Cheese 340, peanuts (roasted), 333.330, Wheat Germ 330, wheat germ, 330, Cowpeas, dry 330, peanut butter, 330, Mullet 320,

Figure 2



1) GABA cells release the neurotransmitter GABA, which inhibits release of dopamine from the Dopamine Cells. This sends a message to Target Cells that it has had enough. 2) COCAINE blocks the re-absorption of dopamine by the Dopamine Cells, thereby increasing availability of dopamine, causing an intense feeling of pleasure and a craving to repeat that pleasure. 3) This causes addiction to COCAINE. Source: [www.pet.bnl.gov/neuron.html](http://www.pet.bnl.gov/neuron.html)

rate enough to detect sub-clinical hypothyroidism and that low body temperature is a more reliable indicator, other causes of abnormal temperature being excluded. Hypothyroidism also occurs in Hashimoto's disease, a rare disorder that is caused by an autoimmune destruction of the body's thyroid by antibodies circulating in the blood. If there is a marked thyroid deficiency the doctor may prescribe thyroxine tablets. The dose needs to be carefully calibrated and here you can help the doctor by taking your temperatures in the morning. Thyroxine is only one of the hormones secreted by the thyroid gland. This drug may be considered a replacement for the natural compound produced in the body and should not give any side effects. Yet some people with angina problems should be cautioned when taking thyroid medication and should be carefully monitored.

Sometimes hypothyroidism is caused by a deficiency of the thyroid stimulating hormone (TSH) produced by the pituitary gland. Thus an accurate diagnosis by a qualified doctor is needed when dealing with hypothyroidism. Iodide in food is transported to, trapped in and concentrated by the thyroid cells. It combines with tyrosine (an amino acid - protein source) to form thyroxine (T4) and triiodothyronine (T3) which is stored by the gland. High levels of T3 and T4 will suppress the secretion of thyroid stimulating hormone (TSH) from the pituitary gland. Thus a balance is maintained (Bayliss, 1982).

### **Nutritional aids in thyroid therapy**

There is some doubt whether nutrition alone will help to overcome the problem of hypothyroidism. Nutritionally, thyroxine production depends on a complex range of nutrients. Iodine is one of the precursors of thyroxine. This is contained in kelp and iodized salt. It is said that vitamin A - retinol - and not in the carotene form is essential in converting iodine into thyroxine. The liver can't convert carotene to vitamin A in the absence of thyroxine or in hypothyroidism. Vitamins B2, 3 & 6 and C are required for absorption of iodine. A B1 (thiamine) deficiency alone can cause hypothyroidism. Vitamin B12 can't be absorbed with a deficient thyroid gland. Copper is required for the production of TSH from the pituitary. Foods that interfere with the uptake of iodine are: cabbage, kale, Brussels sprout, cauliflower, broccoli, Kohlrabi, turnips, rutabaga, rapeseed, brown (Indian), black, or white mustard, garden cress and radish, soybeans, skins of peanuts, almonds, and cashews. Thus when eating these food frequently one should take extra iodine supplementation. The first choice should be kelp if it is tolerated. The following chemical substances inhibit iodine uptake; sulfa, anti diabetic drugs, prednisone, estrogen, smoking (thiocyanide inhibitor) and fluoride (thyro suppression).

### **Hypothyroidism and tyrosine deficiency**

It is interesting that tyrosine - a non-essential amino acid - is a precursor to thyroid, adrenocortical hormones and to dopamine. It is also a precursor of melanin -

pigment found in hair, skin and the choroid of the eye (Wintrobe, 615). Vitiligo is the disorder of melanin distribution on the skin and could therefore be related to hypothyroidism. Deficiency of tyrosine may show up as having low body temperature, low blood pressure and 'restless legs'. The body can produce tyrosine from an essential amino acid called phenylalanine; that is, humans derive the latter from the diet - mainly a high protein diet. Deficiency of the latter lead to a variety of symptoms including bloodshot eyes, cataracts and behavioural changes. Phenylalanine is also the precursor (via tyrosine) of dopamine, then on to norepinephrine and epinephrine (adrenaline) - a deficiency of these may lead to depression - indicating that it affects behaviour in a fundamental way. Low levels of hydrochloric acid in the stomach (hypochlorhydria) may block the digestive process of amino acids including phenylalanine.

Thyroid deficiency may be treated naturally with supplementation of phenylalanine or tyrosine. As this could also be the treatment for depression, we are killing two birds with one stone. However, supplementation should be under the supervision of a doctor as excessive dosage may produce toxic effects. Animal studies have shown that when phenylalanine is taken in large doses - in excess of 3 percent of diet - an amino acid imbalance may cause tyrosine toxicity (Agric. Biology etc. 1982), however this is most unlikely in the human diet. Phenylalanine can aggravate a preexisting pigmented melanoma (a type of skin cancer) (Pearson et al. 1982, 136). Some studies have suggested that schizophrenia may be due to an error in dopamine metabolism. As phenylalanine is a forerunner of tyrosine and then of dopamine, administration of L-Dopa (which passes the brain barrier, not dopamine) together with antioxidants may help some schizophrenics according to Pearson. (Pearson et al. 1982, 135 for more details)

Neither phenylalanine nor tyrosine should be supplemented in individuals taking monoamine oxidase inhibitors (MAO inhibitors), Chaitow, 1985, 58).

Dosage: For depressive states 100mg to 500mg of L-phenylalanine per day. Results should show in a few days. Caution: hypertensive individuals should start from around 100mg daily and blood pressure should be checked. People suffering from phenylketonuria - a disease caused by a defective enzyme - *phenylalanine hydroxylase* - converting phenylalanine to tyrosine are accumulating phenylalanine at toxic levels and should avoid it at all cost. It is best to consult a doctor when considering taking phenylalanine.

### **MAO inhibitors**

Monoamine oxidase (MAO) is an enzyme in the brain which degrades the monoamine neurotransmitters dopamine, norepinephrine (NE) and serotonin. This enzyme functions to maintain proper levels of these beneficial neurotransmitters contributing to our mental health. This enzyme increases in activity with age, lowering the levels of the neurotransmitters available to the brain. Hence older people are inclined to be more depressed. When doc-

tors prescribe MAO inhibitors - e.g., iproniazid, isocarboxazid, phenelzine and tranlycypromine - they attempt to inhibit this enzyme thereby increasing the concentration of the neurotransmitters. However, these drugs need to be administered with caution. They can cause hypertensive crises (high blood pressure), interact with other depressant, or hypotensive drugs and they react with many foods and beverages such as cheese, protein extracts, soy sauce, pickled herrings, and red wine. People with epilepsy, cardiovascular disease and those with hepatic (liver) and renal (kidney) insufficiency are especially at risk with MAO inhibitors. Some side effects are insomnia, agitation, dizziness, low blood pressure when in a lying position (sleep), constipation, dry mouth, blurred vision, difficulty in urination to mention a few.

Pearson and Shaw (1982, 184) reported that procaine - or the procaine compound Gerovital (GH3) developed by Dr Anna Aslan of Romania - is a mild reversible MAO inhibitor. Procaine - GH3 or KH3 (Shering P/L) in Australia - does not seem to require the precautions of synthetic MAO inhibitors. Thus phenylalanine and KH3 may be a very effective natural anti-depressant. They reported that; "Phenylalanine was twice as effective as the current prescription 'drug of choice' for depression, imipramine, in clinical tests" (MacFarlane, 1975).

Natural sources of phenylalanine: *soybeans, cottage cheese, fish (especially trout), meat, liver, lamb poultry, almonds, Brazil nuts, pecans, pumpkins, sesame seeds, lima beans, chickpeas and lentils.* (Chaitow, 1985, 61). *Note: soybeans and almonds are said to interfere with iodine uptake above.*

### **Hypoglycemia**

Much has been written and spoken of the much maligned hypoglycemic condition. Over 62% of people diagnosed as being hypoglycemic have been reported to suffer from depression and insomnia. Thus hypoglycemia must be regarded as an important cause. The explanation is simple. When the blood sugar level drops below a certain level, the brain is starved of its source of energy - namely glucose - and we get depressed. When the brain is suddenly starved of glucose, the pituitary gland sends an urgent message to the adrenal glands to pour adrenaline into the blood stream. Adrenaline is a hormone that rapidly converts glycogen - or stored liver sugar - into glucose, thus raising the blood sugar level. However, adrenaline is also the fight/flight hormone, readying the body for quick action in case of danger. Thus the sudden presence of adrenaline in the blood stream wakes up the poor sleeper - usually in the early morning. Psychiatrists and other orthodox psycho-oriented practitioner often interpret this by claiming that 'the patient is the worrying type'. Thus depression and insomnia are often found together. Medical practitioners can confirm the diagnosis of hypoglycemia by taking a four to six hour Glucose Tolerance Test. The nutritional doctor is not so much interested in the low level of blood glucose,

but rather in the rate of descent of blood sugar in response to insulin production by the pancreas. If the fall in blood glucose is over 2.8 mm/l in any one hour or 1.9 mm/l in any half hour, the brain is starved of glucose with all the pseudo-psychological consequences, including depression (Samra, 1984, 41).

Depression, if seen as a symptom of hypoglycemia, naturally suggests that a strict hypoglycemic diet is the main remedy against depression. Indeed this is the first step in the treatment of depression. The hypoglycemic diet consists of three hourly, high protein snacks, the avoidance of sugar, coffee, sugary drinks, white rice, white bread and cakes, plus high potency B-complex vitamins and Vitamin C. The vitamins should also contain chromium and zinc. Sometimes some of the symptoms of hypoglycemia can be overcome by the taking of one table spoon of glycerine mixed in milk, fruit juice or even water with a dash of lemon juice. Glycerine is not recognized by the pancreas as a sugar, so does not stimulate the over-production of insulin. Fructose has a similar biochemical pathway as glycerine, but excess fructose may result in high triglyceride levels. However, it is of little use to people who are allergic to either glycerine or fructose. Many people can obtain a peaceful night with glycerine. Others find that simply taking vitamin B1 (thiamine) involved in glucose metabolism gives them a peaceful night's sleep. Some find help in vitamin B-5 (panthothenic acid).

Nicotine, caffeine and alcohol cause the liver to produce drug antagonists - ie., stimulants - usually in the form of adrenaline. This destabilizes the blood glucose levels and consequently affects the energy supplies to the brain. Hence people suffering from depression are discouraged from taking these drugs, quite apart from a host of other ill effects.

### ***Tryptophan and vitamin B6 (Pyridoxine)***

Depression can also be caused by the body's inability to produce a neurotransmitter called serotonin, which is normally synthesized in the body from other substances. Serotonin is a natural tranquilizer produced within the body from food. Tryptophan - an amino acid and building block of protein - is the forerunner of serotonin. See **Figure 1**. Thus a low protein diet, typical of hypoglycemics, causes a tryptophan deficiency. Studies have shown beneficial effects in the treatment of depression by administering L-tryptophan, 4-6 gms daily. Protein should be avoided for 90 minutes before and after administration and the uptake can be improved with - of all things - sugar. Insulin improves absorption by lowering levels of competing amino-acids.

Without sufficient tryptophan we cannot produce serotonin. Tryptophan is converted to serotonin - our natural calming agent - in the presence of vitamin B6 (Pyridoxine). When there is a deficiency of vitamin B6, tryptophan may be transformed into excessive xanthurenic acid which may cause cancer (bladder), attack the pancreas and cause diabetes. A B6 deficiency can cause sleepless nights. Now it happens to be the case that B6 (pyridoxine) is also involved in ridding the body of toxins.

There is speculation that people with a vitamin B6 deficiency - as among drug addicts - cannot remember their dreams. Hence any drug taking, or the presence of toxins will use up all our vitamin B6, so that we have none left to convert tryptophan into serotonin. People on anti-psychotic drugs also need higher doses of vitamin B6. Detoxification is also aided by vitamin C. To complicate matters a little further, tryptophan is also the forerunner of vitamin B3 (niacin), which is so important that the body considers its production to be more important than that of serotonin. It requires 60 mg of tryptophan to produce 1 mg of niacin in case of dietary niacin deficiency. (Kirschmann, JD, 1979, 36). This could explain why niacinamide supplementation (another form of niacin) to schizophrenics may sometime be helpful to liberate the production of serotonin from tryptophan. Vitamin B3 deficiency can cause insomnia, mood swings, bedwetting in children, crying spells, anxiety, depression and affect the eye-sight. Although this information is somewhat complex, the practical aspects are that we can help ourselves to have a more restful sleep by 1) having three hourly snacks during the day, 2) have a snack before bedtime, 3) making sure that the body has sufficient vitamin C and B-complex vitamins, especially vitamin B1 and B6, 4) taking a table-spoon of glycerine before bedtime if insomnia persists, 5) taking commercially available tryptophan tablets and 6) taking vitamin B3 (Niacinamide) which may liberate the available tryptophan in the body for the production of serotonin.

However, tryptophan supplementation may have adverse reactions and should be administered under the supervision of a doctor. In 1990 it was reported that the pill L-tryptophan was associated with a rare blood disease, eosinophilia myalgia syndrome (EMS). However, in the New England Journal of Medicine 323 (6), 357-365 (1990) it was found that the manufacturing process of one manufacturer resulted in the ingestion of an unidentified chemical substance that was associated with the EMS. It is a pity that authorities have kept this supplement away from the market.

Natural sources of tryptophan: Soya protein, brown rice (uncooked), cottage cheese, fish, beef, liver, lamb, peanuts, pumpkin, sesame seeds and lentils.

Milk and cheese contain tryptophan and this is why a glass of warm milk before bedtime sends many people to sleep. That is, if you are not allergic to milk products! Warm milk combined with a tablespoon of glycerine is an ideal sleeping agent. Bananas and dates are also provide tryptophan. Other good sources of tryptophan are chlorella or other green or blue algae tablets taken at bedtime to induce sleep (via serotonin production). Some people respond positively when they take vitamin B1 (thiamine) before bedtime. However, if you take vitamins you should be warned that the taking of vitamins after six o'clock - especially vitamin C - may keep you awake. These vitamins are involved in the production of many body metabolites, of which adrenaline is one. A good indication of vitamin B6 deficiency is the inability to recall dreams

upon waking in the morning. By taking vitamin B6 you should recall your dreams. If you take too much, you may suffer nightmares.

### ***The Melatonin connection***

Looking at **figure 1** it is shown that serotonin is also the precursor of melatonin, a hormone produced by the pineal gland. (Wintrobe, 574). When the eyes perceive dusk - or darkness - it signals the pineal gland to produce this hormone which is closely related to our diurnal cycles of sleep and wakefulness. It has sedative qualities and help reduce anxiety, panic disorders and migraines as well as induce sleep. Melatonin is a powerful antioxidant and is known to eliminate free radicals toxic to DNA. Thus sleeping restores our immune system. Melatonin inhibits release of oestrogen thereby reduces risk of breast cancer. (JACNEM, Dec 1998, 31). It seems that a disturbance in the diurnal melatonin production causes depression, rather than amount of melatonin in the body at a certain time. Studies have shown that exposure to bright, early morning sunlight (between 7.00AM and 9.00 AM) for at least fifteen minutes is perhaps the most powerful signal that "sets" the biological clock, thereby washing away depression. (The Burton Group, 843) There is some evidence that when people are exposed to artificial light - that is, light lacking the full spectrum sun light - the body cannot absorb certain nutrients and this contributes to fatigue, tooth decay, depression, hostility, suppressed immune function, hair loss, alcoholism and drug addiction and even cancer. (Ott, Roos). Studies have shown that students in classrooms with full-spectrum lights had less absenteeism, higher academic achievements, diminished hyperactivity, compared with classes using ordinary fluorescent lighting. (The Burton Group, 322). It is claimed that taurine levels rises in the pineal and pituitary gland through exposure to full spectrum daylight. Lack of taurine may lead to mental impairment and depression. (Chaitow, 38)

### ***The GABA connection***

Minor tranquilisers known as benzodiazepines occupy special receptors in the synapses (junction between brain cells) of nerve cells. This can affect the function of a natural neurotransmitter called GABA or gamma-amino-butyric acid. This is essentially an inhibiting neurotransmitter. Neurotransmitters are hormone-like chemicals controlling messages between neurons in the brain. The function of GABA is explained in **Figure 2**. GABA is produced by specialized cells. It fits neatly into receptor molecules of other cells and thereby can act to inhibit release of dopamine from dopamine cells. Dopamine causes intense feelings of pleasure. Thus GABA regulate the release of dopamine which influences other cells to experience pleasure (or satiety). It is said that severely depressed people cannot experience pleasure and hence it is important to get some understanding of the relation between GABA and dopamine. Excess dopamine production - intense pleasurable rewards - produces addiction to substances that causes excess dopamine secre-

tion. In **cocaine** addiction, the reabsorption of dopamine is blocked by dopamine cells, resulting in excess dopamine. This leads to intense pleasure and results in cravings for the same substance. (<http://www.pet.bnl.gov/neuron.html>)

**Nicotine**, as an addictive substance, acts by occupying the GABA receptor sites on dopamine cells, drowning out GABA, thus causing increased dopamine production and addiction. ([www.pet.bnl.gov/nicneuron.html](http://www.pet.bnl.gov/nicneuron.html)) It is plausible that ongoing dopamine synthesis causes dopaminergic exhaustion.

Scientists from the Department of Chemistry, Brookhaven National Laboratory, Upton, NY 11973, USA have carried out experiments with gamma-vinyl GABA - an inhibitor of GABA transaminase - to reduce the production of dopamine even after administration of heroin or cocaine. (Gerasimov). A new drug Campral (*acamprosate*) appears to have a similar action, that stops craving for alcohol in alcoholism. This would open a new way for the treatment of drug addiction.

I am not aware of any studies that have used tyrosine or phenylalanine supplementation in drug withdrawal programmes. As was shown before, the amino acids phenylalanine and/or tyrosine are precursors of dopamine, which has been used in the treatment of depression. (Werbach, 160). The conversion from dopa to dopamine is dependent on vitamin B6, again showing that a B6 deficiency can cause depression. Studies are needed to show whether supplementation of phenylalanine, tyrosine and B6 will benefit people withdrawing from addictive drugs, including nicotine.

It is interesting that inositol and vitamin B3 (niacinamide) are said to occupy the same receptors and this may explain why some people feel relaxed and sleepy when taking these nutrients (Pearson et al. 1982, 282).

The body produces GABA from glutamic acid in the presence of vitamin B6 (pyridoxine). Glutamic acid cannot pass the lipid layer of the brain cell unless in the form of glutamine. When glutamine enters the brain cell it is converted to glutamic acid. In this form it can either 1) combine with ammonia - a highly toxic end-product of protein - to form glutamine, to be carried to the liver and then excreted as urea in the urine or, 2) combine with vitamin B6 to form GABA. Glutamic acid itself is an excitatory substance. Thus if there is a deficiency of vitamin B6 there may be an excess of glutamic acid causing anxiety and restlessness: if there is an excess of vitamin B6, too much GABA is produced causing one to feel tired and depressed (Vayda, 63). Glutamine supplementation has been known to stop alcohol sugar craving (Rogers, 1957). It is important to realise that minor tranquilisers dispensed by doctors will ultimately aggravate the symptoms for which they were prescribed. Although drug therapy may have short term benefits in some instances, it is better to experiment with natural nutrients to achieve the same ends without the side effects.

### **Toxic Metals**

Related to hypoglycemia is heavy metal intoxication. High levels of lead, mercury and

cadmium interfere with the enzymes breaking down glucose into energy within the mitochondrion of cells that carry out aerobic respiration and where the Krebs cycle is located. The result are symptoms that are practically indistinguishable from those of hypoglycemia - fatigue, insomnia and depression. Often this can be prevented in our polluted environment by increasing zinc intake to prevent heavy metals from occupying substrate molecules in enzymes. Sunflower seeds, oysters and crustaceans are said to have a high zinc content. Foodstuffs containing mercaptan groups or sulphur containing compounds - as in onions, garlic and eggs - have the ability to claw out heavy metals from the body over a period of time. The name mercaptan comes from their ability to react with ('seize') mercury. The amino acid methionine plus vitamin B6 is perhaps the most effective and natural way of detoxifying the body of heavy metals (Chaitow, 1985, 55). Anti-oxidant supplementation with vitamins A, E, C and selenium is also helpful. Toxic metals in the body are known to increase free radicals, which have been associated with cancer and against which anti-oxidants provide protection.

### **Allergies**

Foodstuffs may cause mental and behavioural symptoms by a variety of mechanisms including cerebral allergies, food addiction, caffeineism, hypersensitivity to chemical food additives and reactions to amines in food. Yet the subject of allergies remains controversial among the medical profession. The body's unique overreaction to a substance - foreign or not, internal or environmental, organic or chemical - causes stress which over time will lead to exhaustion and overt illness, including depression. If allergy is a factor in the treatment of depression, then avoidance of the source of allergy is the most important treatment technique. There are several treatment approaches: avoidance, reduction of total load, rotary diet, desensitization, neutralization, nutritional supplements etc.

### **Prostaglandins in allergies and disease**

Much has been written about the role of prostaglandins in the mechanism of the immune system and thus allergies. Prostaglandins - very active organic compounds derived from essential fatty acids - cause a range of physiological effects in animal tissues. They act at very low concentrations to cause the contraction of smooth muscles. Prostaglandins may have antagonistic effects on blood circulation: thromboxane A2 causes blood clotting while prostacyclin causes blood vessels to dilate. Both thromboxane A2 and prostacyclin derive from series 2 prostaglandins (2PGE) from arachidonic acid, usually rich in animal food sources. The series 2 prostaglandins have been associated with many 'degenerative' diseases such as arthritis and allergies.

The more beneficial prostaglandins - the series 1 prostaglandins or PGE1 - are known to prevent platelet adhesiveness, inhibit inflammatory reactions, dilate blood vessels thereby improving blood circulation and control blood pressure, help in weight reduction,

improve the effects of insulin, activate T lymphocytes and inhibit abnormal cell proliferation (Davies & Stewart, 1987, 113). Allergic people have low PGE1 and the reason is that they may be deficient in cis-linoleic acid in the diet from which it is manufactured.

Safflower oil contains 70 percent of linoleic acid and is therefore a rich source along with poppy seed, sunflower, soybean corn etc.

An enzyme, delta-6-desaturase converts cis linoleic acid (cLA) to gamma linolenic acid (GLA) requiring the following vitamins and minerals; pyridoxine (B6), zinc, magnesium, B-complex vitamins and vitamin C and E (as an anti-oxidant). It is thought that some people have a deficient D6D enzyme and if this is so they are advised to take Evening Primrose oil as this contain about 10 percent of GLA. Other plant sources of GLA are borage (*Borago officinalis*) and blackcurrant (*Ribes nigra*). These are all forerunners of the series 1 prostaglandins. It is hoped that supplementation with the omega-6 essential fatty acids will bring some order into the erratic behaviour of the immune system.

### **The Omega-3 Phenomenon**

However, other authors (Rudin & Felix, 1987), have warned against bringing about an imbalance between omega 6 and omega 3 essential fatty acids, all precursors of prostaglandins, especially in relation to serious 'psychological and psychiatric disorders'.

They argue that because of the heart attack scare and the need to avoid fat, manufacturers have produced alternatives in the form of vegetable oils as in margarine production. It has certainly made a dent in the rate of cardiovascular diseases, but has shifted the balance towards warm climate oils (omega-6) such as safflower, sunflower, corn, almond oils and so on, and away from the cold climate oils (omega-3) such as linseed, salmon, walnut, wheat germ and soybean. The difference is that cold climate oils are even more unsaturated and that the body need these to produce beneficial prostaglandins. Fish oils contain two additional types of omega-3 fatty acids, made from linolenic acid: DHA or docosahexaenoic acid, and EPA or eicosapentaenoic acid. They keep the blood thin, prevent platelet stickiness and are especially recommended to prevent cardiovascular diseases. Fish produce these from plankton in the sea.

Flaxseed (Linseed) oil contains 60 percent omega-3 and 20 percent omega-6 essential fatty acid and Rudin recommends the use of Flaxseed oil as the source of alpha linolenic acid, from which the body can produce its various prostaglandins. Alternatives are fish oils and MaxEPA capsules.

### **Candidiasis and parasites as a source of depression**

Internal parasites and fungi, especially for those people with hypochlorhydria - producing low levels of hydrochloric acid, a natural defence barrier to internal parasites - interfere with the absorption of food in the gut. This may produce irritable bowel symptoms, diarrhea, fatigue, **depression**, urticaria (rashes), arthralgia (pain in joints), uveitis (inflammation of the pigmented part of the

eye) and generally malabsorption of carbohydrates, fats, proteins, vitamins and minerals. Most doctors are now aware of the pervasive effects on health of candidiasis or thrush - the mould disease. This often follows a long period of medication with antibiotics, which tend to kill off 'friendly flora' inside the intestines. Patients following a regiment of antibiotics should consume generous amounts of Lactobacillus Acidophilus present in yogurt or buttermilk including perhaps tablets of L. acidophilus to reestablish the friendly intestinal flora. Friendly intestinal bacteria produce most of the required vitamins and will make up for any deficiency in the diet. Also pectin in apples and bananas tend to absorb unfavorable bacteria while promoting the growth of beneficial organisms.

### **Individual nutrient deficiencies and depression**

The following individual nutrient deficiencies have been reported to be associated with patients suffering from depression.

#### **Vitamins**

- o biotin
- o folic acid
- o pyridoxine
- o riboflavin
- o thiamine
- o vitamin B12
- o vitamin C

#### **Minerals**

- o calcium
- o iron
- o magnesium
- o potassium

Conversely, excesses of magnesium and vanadium have also been associated with depression. (Werbach, P155)

### **Herbal remedies**

Most people would be aware by now of the antidepressant effects of **St John's Wort** (*Hypericum perforatum*), which has similar action as the SSRI drugs. It inhibits the reuptake of serotonin in the brain in the treatment of mild to moderate depression. (Werbach, 1994, 135) In Germany doctors prescribe herbal remedies routinely and St John's Wort (standardized to contain 0.3% hypericin, taken 3 times a day) is much more popular than the conventional drugs such as Prozac and Zoloft. Hypericum has also been found to be useful in conditions associated with anxiety, stress, premenstrual syndrome, fibromyalgia or chronic pain. But they do interact with a number of drugs: it decreases bioavailability of digoxin, theophylline (asthma), cyclosporin (immunosuppressant), and phenprocoumon (anticoagulant) potentiate with MAO Inhibitors and SSRI (Erocap, Luvox, Prozac, Cipramil, Erocap, Fluohexal, Lovan, Zactin, Zoloft).

Also fair-skinned people are advised to avoid prolonged exposure to sunlight, because of heightened sensitivity to the sun. It takes some time - about four weeks - before the herb becomes effective.

Where cerebrovascular insufficiency is a contributing factor of depression, the use of **Ginkgo biloba** (Standardized to contain 24% ginkgoflavoneglycosides) in animal studies have been shown to be effective to reduce anxiety and depression. (Werbach, 1994,135).

If toxemia (toxic overload) is seen as contributing to depression, perhaps Milk Thistle (*Silybum marianum*) will help the liver to accelerate detoxification.

### **Conclusion**

It is clear from the above that the treatment for depression by clinical nutrition is very unlike the practice whereby a doctor - usually a psychiatrist - prescribes a drug for a 'psychiatric' symptom. Tricyclic anti-depressants are potent anti-histamines and this property may help to explain their effectiveness against psychiatric symptoms associated with allergic reactions. But it is obvious that the patient is not 'cured', in fact he may be made to feel worse through the actions of side-effects, for which other drugs are usually prescribed. The effects of side effects can often be overcome by special nutritional supplements; 1) In the case of Tardive Dyskinesia (the trembling disease of anti-psychotic drugs) Vitamin B3, B6, C, E and manganese, 2) Lithium medication - for manic-depression - should be accompanied with safflower oil, or GLA. Evening Primrose oil is an excellent source of GLA.

A more patient-friendly group of new drugs are the SSRI (Specific Serotonin Reuptake Inhibitors) that aim to bring about a more natural remedy. They block the re-uptake of serotonin. However, a long-lasting increase in the availability of serotonin neurotransmitter at a synaptic receptor site results in a decrease in the number of receptors on the cell surface (so-called downregulation). (Aust Prescr 1999; 22; 106-8) Thus, better understanding of the relation between nutrition and depression would usher in a more natural treatment of depression.

Clinical nutrition can be effective once it is understood that each person is a biochemical individual. No two persons are the same! Similar disease syndromes may and usually derive from a set of divergent factors. To understand the disease we need to study the individual patient. Depression is not treated, but a depressed person is! We can't treat alcoholism, but we can treat a person suffering from alcoholism, including his or her psychological make-up.

The treatment of depression by clinical nutrition - as is the case with all medical/health problems - requires personal history taking by the practitioner, a thorough biochemical investigation of the individual and tests leading to the diagnosis and treatment program. Often if the program does not work, a further investigation needs to be carried out and a new diagnosis generated. This all depend on the scientific mind of the practitioner, his knowledge of medicine, biochemistry and nutrition and above all his creative 'detective-like' imagination leading to new hypotheses explaining the symptoms. Often the more successful practitioner is a member of a health team who pool their resources in this complex world of 'alternative medicine'.

In the end the individual patient and society - in particular the tax paying society - are going to benefit from this form of preventative medicine.

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### Rice Water

- 60 g Rice
- 1 litre water
- 4 cm cinnamon stick

Boil the lot together in a saucepan for 20 mins. Strain through a fine sieve. Chill before serving

### Spinach Pie

- 3/4 cup long grain rice
- 50 gr butter (is best but margarine of choice will do.)
- 1/2 cup sliced shallots

- 4 eggs
- 1 cup cooked spinach
- 1 1/2 cup grated cheese.
- Salt to taste
- Plenty of freshly ground pepper

Cook the rice as according to the method recommended on the packet.

Cool. Melt the butter in a frying pan and cook over a gentle heat till soft.

Beat the eggs in a large bowl. Add the rice shallots and butter mixture plus all the other ingredients

Pour into a greased 23 cm pie plate  
Bake in a 190 C. for 35-40 mins or until the pie is lightly set. Let stand for 10 mins  
Serve either warm or cold with a salad.

### Split Pea Fritters with Yoghurt Sauce

- 1 cups green split peas
- 2 zucchini grated
- 1 small grated onion, grated
- 2 cloves crushed garlic
- 1 cup flour of choice
- 2 teas ground coriander
- 1 teas garum masala
- 2 eggs lightly beaten
- vegetable oil for frying

### Yoghurt sauce

- 200 g sheeps or goats or yoghurt
- 2 tabs chopped fresh coriander
- 1 tab fresh chopped mint

### Sauce

Combine all the ingredients in a small

bowl and set aside

Can be made up to 5-6 hours ahead of time

Rinse and drain the split peas. Place in a medium sized saucepan and cover with plenty of cold water. Bring to the boil over a medium heat . When boiling reduce the heat and allow to simmer for about 25 mins or until tender. Drain and allow to cool for 10 mins

Transfer the peas to a large bowl. Add the zucchini, onion, garlic ground coriander, garum masala and eggs. Season with salt and pepper if desired. Mix together with a wooden spoon till well combined

Using a large frying pan add enough oil to reach a depth of 1 cm. Heat over a medium heat. Drop pea mixture (a tablespoon at a time) into the frying pan. Cook on each side for about 2 mins or until golden brown. Keep warm while cooking the rest of the mixture

Serve with the yoghurt sauce

Great for a light lunch served with salad

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