

The Hypoglycemic Health Association

NEWSLETTER

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Volume 13 Number 4

December, 1997

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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 be starting half an hour earlier on Saturday, 6th December 1997 (**1.30pm**) to celebrate Christmas and get together with a few snacks and a cuppa whilst enjoying a pleasant chat with friends in the Hypoglycemic Health Association. Don't forget your \$5 present marked "male" or "female" as explained in the upper right corner of page 2. In this issue we have an interesting article by Blair Stone PhD reminding us about the philosophical basis of natural healing, contrasted to the tenets of conventional medicine. At this time the idea that we all have "an inner wisdom" that helps the body to heal may be attractive. It could mean that we all are responsible for our healing by the way we choose medical modalities. Education and information about these matters may empower us to achieve better well-being. And this is one of our aims!

It is also the time to remind members that MEMBERSHIP FEES are due for those whose expiry dates show 31 December 1997 or earlier as per address labels. This Association is entirely supported by voluntary members and health professionals giving their free time. Costs of holding meetings and production of the Newsletter are constantly rising and we are appealing to you to promptly update your membership and encourage your friends to join us. Application forms are at the back of the Newsletter.

Our Next Public Meeting will be at 2 PM
on Saturday, the 6 December, 1997
at the YWCA,
2 Wentworth Ave, Sydney and
our guest speaker is

Dr Katrina Watson

who will be speaking
on the subject of

***"A wholistic approach
to hormonal health"***

Dr Katrina Watson obtained her medical degree at the Monash University at Melbourne. She also gained a Diploma from the Royal Australian College of Obstetrics and Gynaecology. She is a member of the Fellowship Australian Medical Acupuncture Society, The Australian College of Nutritional and Environmental Medicine and Australian Medical Faculty of Homeopathy. She has considerable experience in conventional and complementary medical practice. She moved from Melbourne to Sydney to join Dr George Samra at the *Total Therapies Medical Centre* at Kogarah. This Centre provides a complete range of health care, employing conventional and alternative or natural medicine.

Dr Katrina Watson, who has now also joined the Committee of The Hypoglycemic Health Association, is a very enthusiastic medical practitioner who readily establishes a rapport with her patients because of her unassuming and warm personality.

Her interest has been in the plight of women and women's health issues with an emphasis on the *wholistic approach* in medicine. Her talk should be of great interest to members of the Association and of the public.

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: Stanton Library, North Sydney; Leichhardt Municipal Library; The Tasmanian State Library; The Sydney University; The University of NSW, Newcastle University. 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

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

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.

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.

Douglas Reay won the lucky door prize

CHRISTMAS PARTY

Our next meeting on Saturday the 6th December 1997 will start one half hour earlier than usual (1.30 pm) to celebrate our Super Christmas Party. Members and friends are invited. Please bring along a plate of sugar-free foods. **Presents:** The Committee asks every one to participate in the present Lucky Dip. Bring a wrapped present worth \$5 with you and mark it "male" or "female"; but even if you don't, you won't be disappointed. There will be presents for kids, and they are welcome.

and **Gesina Den Dulkwon** the raffle at our last public meeting on the 6 September 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**.

Natural Healing: Modern applications of an ancient philosophy

by Blair Stone PhD, ADN*

AS a nutritionist and iridologist in private practice in Sydney, I am aware of the many interesting talks presented to the Hypoglycemic Association over the years and the stream of articles that have appeared in your Newsletter, which I read. Overwhelmingly these have been practical in nature. In that spirit I intend to pass on some practical information later in this talk. I hope you will find it of interest.

But before that, by way of introduction, and also novelty and enrichment, I propose to say a few things about the history and philosophy of natural healing. I hope you will find this of interest too. Later on I will connect the philosophy to the practice of natural healing and explain how it guides my own approach.

An ancient controversy

Something interesting happened about

***Dr Blair Stone can be contacted at
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2500 years ago. An argument was born. Boiled down to its saucy essence it was a disagreement between those who believed there was some kind of inner wisdom or vital force in the body which caused the body to heal itself and those who believed that there was no such thing, rather the body was composed of little atoms which behaved according to the laws of nature in exactly the same way as the atoms in rocks or water or air.

Around 450 years BC the Greek healer, Hippocrates, famed for the Hippocratic oath, sworn to by physicians until quite recently, was a founder and a leader of the vital force group.¹ He saw in nature an inherent power of healing which worked unceasingly to create bodily health:

"Everything in nature tends to re-establish that perfect harmony that constitutes normal life. Every force in the individual tends to preserve a per-

fect equilibrium and, if it has been disturbed, to re-establish order and harmony".²

Around the same time, the philosopher Democritus, also a Greek, coined the word atom to explain his idea that all matter was composed of tiny, invisible fundamental particles that were the basis of every material substance. Democritus believed that the laws that explain the behaviour of these atoms would explain everything in nature.³ Consequently he regarded Hippocrates' vital force as an ignorant superstition and substituted for it his purely mechanistic view of things. Followers of inner intelligence and atomistic mechanism assembled into opposing camps and continued to argue passionately through the ensuing centuries, through the whole of the Middle Ages and the Renaissance right into so called "modern times". The debate continues today.

Anyone who wishes to explore the story of the debate in fine detail over the centuries might refer to the multi-volume study by Harris Coulter, **Divided Legacy & History of the Schism in Medical Thought**, published by North Atlantic Books, Richmond California. The much shorter book by Dr Dean Black, **Inner Wisdom** is an excellent summary.

Victory claimed by the mechanists

These big ideas wars are see-saw affairs. For a while one side appears to have the upper hand, has more prestige and a larger number of adherents. Then the fashion changes and the other point of view gains ascendancy for a while. As the 17th century began, Hippocrates was still regarded as the fount of medical wisdom. But a scientific revolution created by Newton in England and Descartes in France was to change the situation:

“Descartes created the conceptual framework for the 17th century science with his view of nature as a perfect machine governed by mathematical law. Newton created the foundation for this mechanistic view of nature, and these notions of mechanism made physics the crowning achievement of the 17th century.”⁴

Newton created a mathematics of celestial mechanics that explained the motions of the moon and the planets for the first time. This development gave new impetus to the idea first put forward by Democritus long ago that physical phenomena would be fully explainable by natural laws alone. As a result the philosophy of mechanism gained prestige and medical thinking began to move in the mechanistic direction. The practitioners in the vitalistic tradition lost some status but kept the faith alive anyway.

Whereas earlier generations of physicians, following Hippocrates, had an enormous faith in the wisdom of nature and the body's capacity to heal itself with some timely assistance from the physician, it now became more fashionable to view nature as a machine and the role of the doctor began to change. The physician would no longer be the servant of nature, but the master. The hope was for a more powerful way to overcome illness and death, but now without nature's help. An example of this change of spirit can be seen in Benjamin Rush, a leading physician of the 18th century, and one of the signers of the American Declaration of Independence:

“Although physicians are in speculation the servants, yet in practice, they are the masters of nature.... Instead of waiting for the slow operations of nature, to eliminate a supposed morbid matter from the body, art should take the business out of her hands.”⁵

Natural healing is still acknowledged by Rush, but he is not in awe of it. It isn't fast enough. The physician is not encouraged to be guided by or to cooperate with nature, but to take over the responsibility for the healing

process and to improve it with new methods and technology. This was the eighteenth century. In the 19th and 20th centuries medicine will no longer be compounded by individual doctors, but will be developed and manufactured by large commercial enterprises using the most modern scientific technologies. The emphasis will shift from natural substances to new, man-made molecules which don't occur in nature and which may be patented. Such pharmaceutical drugs will become the preferred and later the only accepted medicines by the mainstream. Herbals and nutrients will be relegated to use by healers working outside orthodox medicine, or on its fringes.

Because herbs and nutrients don't fit easily into the double-blind testing methods used to evaluate pharmaceuticals, their use will be called by orthodoxy “unscientific”, their efficacy as established by often long periods of empirical observation and clinical trials be called “unproven”, and those who use them are labelled as “quacks”. The natural healer, thus marginalised, will respond by accusing the orthodox mainstream of treating patients whose illnesses are caused by nutritional deficiencies with “poisons”. One of them will refer to medical education as “the warping of unsuspecting immature minds into a meticulous system of commercial superstition”.⁶

In my opinion these are extreme rhetorical positions, which are exaggerated and unfair to each side. I offer these viewpoints to illustrate that the old debate is still raging today as fiercely as ever. Will they ever be reconciled? I will have something to say about this, but first, let me tell you about Pasteur and Béchamp.

Pasteur versus Béchamp

The professional jealousy, the slanging matches, the hard feelings, and the conflict between the distinguished Professor Béchamp and the famous scientist Louis Pasteur in France during the middle of the 19th century perfectly illustrate the collision of the vitalist and the mechanist camps in the careers of two extraordinary personalities. To cut a long story short, Pasteur believed he had found the cause of all illnesses in little creatures that float about in the air. This gave birth to his famous germ theory. Pasteur sought to eradicate illness by two famous methods. First the wearing of masks to prevent the airborne beasts from causing infections. Second by the use of mass vaccination programs to give immunity against specific germs.

Professor Béchamp, to Pasteur's great annoyance, informed the world that his research has established that germs were not only in the air, but on people's hands, skin, hair and clothes and everywhere inside them as well. Béchamp argued that surgeons should do more than wear masks. His suggestions were not generally adopted for fifty years with consequences that you can imagine. Béchamp also wrote that since the omnipresent germs were safely kept in check in healthy, well-fed people who had plenty of fresh air and clean surroundings, some emphasis should be put on providing these conditions to build up

people's resistance to disease. But to the establishment of his day, that seemed like a lot of impractical vitalistic nonsense. Pasteur's suggestion to give medicines to kill the germs when they had invaded the body, was preferred. The germ theory and strong medical interventions to restore health became the mainstream approach. Pasteur became internationally famous and even to present times Professor Béchamp was largely forgotten.⁷ Today vaccination remains a point of controversy between those inclined to natural healing and the mainstream. The search for germs to account for illness remains a full-time vocation for many scientists to this day.

Inner wisdom stages a come-back

Two scientific revolutions in our time have served to unexpectedly revive the prestige of natural healing and vitalism. These were the new dynamic systems physics of 1977 Noble Laureate Ilya Prigogine and the modern science of genetics.

Prigogine, building on obscure work of the brilliant French mathematician Henri Poincaré, established that while Newton's mathematics described the movements of planets fairly well, though not exactly, this was because these systems dissipated energy very slowly. In cases where the system dissipated energy rapidly and was in disequilibrium, as for instance in living things, the Newtonian mathematics were useless. As he later wrote:

“The Golden Age of Classical Science is gone and with it also the conviction that Newtonian rationality ... forms a suitable basis for a dialogue with nature.”⁸

Prigogine's work didn't just set back the myth of the universe as a machine. It showed it was absurd. The ambition of mechanism to explain everything on the basis of extensions of celestial mechanics was shattered. And the mathematics of chaos theory which emerged with the latest physics suggested that small events could change very large systems in ways which could not be foreseen or even rationally explained. The physical world was inherently unpredictable and certainly beyond control. This applies particularly to living things which are a perfect example of systems in disequilibrium that rapidly dissipate unless fresh energy is constantly introduced into them. It is these characteristics of human beings which make them react so unpredictably to man-made medicines. A prime example of this was the interferon fiasco of several years ago. Scientists had learned that interferon made by the body played an important role in ridding the body of serious diseases. But when interferon was introduced artificially it had the effect of disrupting the body's biochemistry and not working in the way envisaged at all. Prigogine showed the human body was not a machine and could not be repaired as one repairs a machine. The ideal of eventual perfect control by man of the body was proved a chimera and a false hope. The strong intervention would always have the problem of unforeseen and uncontrollable side effects.

The other revolution, genetics, has provided, again unexpectedly, important scientific support for inner wisdom. The mysterious source of the phenomenon identified so long ago by Hippocrates, namely the body's inbuilt capacity to repair damage, heal itself and re-establish its equilibrium, is to be found in the genes. More about this later.

In light of this one might ask how we can explain the following statement by a prominent MIT molecular biologist and cancer specialist written in 1985:

*"Many biologists of the future will think of a biological system in terms of a series of well-defined mechanical parts that can be dismantled, engineered, and re-assembled under the guidance of the molecular mechanic."*⁹

My explanation is that we should not expect the two camps to cease this debate. There are very strong human reasons to expect it to continue for a long while.

Doctors or natural healers?

Considering the foregoing, what should our attitude be toward the current main stream of medical practice and toward natural healers? My own view is that we should be grateful there are both, and we should learn how to use both to the advantage of our health.

There are many areas in which mainstream medicine not only excels but is indispensable. For example, 1) when you are in an accident and suffer traumatic injuries, 2) when you are in the acute phase of an infectious disease and 3) when you have absorbed poisons. In these situations modern medicine can save your life. There are of course other circumstances when you should visit the doctor or go to hospital, but the three obvious I have mentioned make the point.

Similarly there are many areas in which natural healers excel. Qualified, accredited practitioners in chiropractic, nutrition, herbalism, massage, iridology, and many other natural modalities can help your body to heal itself and correct many chronic conditions. In general natural healing therapies excel as preventive medicine and for long term health improvement. To enjoy optimal health, I believe people are best advised to use both mainstream medicine and natural healing.

How does the body heal itself?

The key to the body's inner wisdom and the principle reason that the body can heal itself is the genetic system. It can be thought of this way.... when your mother and father conceived you, they each gave you a seed. The two seeds fused and you started to grow. The growing process was controlled by the 46 chromosomes with their approximately 100,000 genes. Of course these could produce you only in the unique environment of the womb. After about 9 months you emerged,

appropriately, on your birthday.

But the story does not end there. You see, in almost every cell in your body there are exact copies of those original seeds with their 46 chromosomes and 100,000 genes. And the genes in those cells of yours are still working. Night and day, without ever stopping, they work and work and work, rebuilding your cell structures when they are damaged or worn out, manufacturing hormones, immune system components, cellular enzymes and so forth. And they still have the same goal they always have... to build you exactly according to the original parental instructions in the genes. This process accounts for the body's amazing capacity to heal itself and to maintain its internal equilibrium and harmony. When you are built according to your genetic blueprint you are whole - which is what healthy means - and you are optimally well. Indeed you have health which is far superior to merely "normal". You have true wellness, wellness being what you have when healing makes you whole.

But in order for all this to happen your cells need to be provided regularly, almost continuously, with fresh, adequate supplies of the right building materials. When the genes

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specify selenium as they do for certain of the body's molecules, then only selenium will do. No substitute can do the job. So, if your cells don't get selenium, then you cannot be whole, i.e., you cannot be completely healthy, and you won't have wellness. This is true for more than 50 essential nutrients, including zinc, chromium, manganese, copper, iron, indium, many other minerals, and also vitamins, amino acids, and the essential fatty acids. If all of these are not in your diet, you are destined to have chronic degenerative illness. Remember, your body cannot make the essential nutrients. They must be in the diet. Now here is a problem: you are not getting them. According to the US Food and Drug Administration, the average American diet is deficient in all of the more than 59 essential nutrients. Why? Because they are not in the food that is available to be eaten. This is true in Australia as well.

Nutrition is a problem of Western Civilisation

The reason essential nutrients are not in our diet today is because of how our civilisation operates. Firstly, many essential minerals are no longer in our soils. Why? Because crops take out about 60 minerals from the soils as they grow and farmers usually put back only 3 minerals back into the soil - potassium, nitrogen, and phosphorus. So every year the mineral content of our food is less than it was the previous year, particularly trace minerals such as, for example, chromium which regulates blood sugar levels, and zinc which enters into

more than 80 enzymes vital for cellular functioning. The most-missing nutrients are the essential fatty acids, which are crucial to good health, and which have been eliminated from our food by modern processing methods. The B vitamins are in short supply for the same reason, as are vitamins C, E, and virtually all the other essential vitamins. The results are all around us. People who should be and could be in wonderful health, are not. Diabetes, cancer, heart disease, strokes, obesity, infertility, arthritis, more than 80 immune deficiency diseases and many other serious illnesses develop because of long-term essential nutritional deficits. Add to this environmental pollution and we get a sorry picture of our state of health.

The strategy of natural healing

The treatment of chronic degenerative health problems needs to be holistic because that is the way the body works. It is a key to understanding how to assist the immense natural healing capacities of the body.

Every bodily cell is connected to every other by complex networks of communication and supply. The blood, lymph, nervous, hormonal and immune systems work inter-

relatedly to maintain the bodily harmony and balance which are seen in health.

In order to understand any chronic problem, you have

to see how the various parts of the body are contributing, tracing the problem back to its causes, often in remote structures. For example, eczema, psoriasis, acne and other skin eruptions are caused generally by metabolic problems that begin in the gastrointestinal tract and the liver. There are main organs of excretion in the body: the bowels, the kidneys, the bronchi, and the skin. When toxins are not properly processed by the liver for discharge through the bowels or kidneys, the body will move the toxins to the skin where they can be excreted. Restore the liver, and the skin eruptions gradually cease. But to fix what is ailing the liver, it is often necessary to simultaneously repair a deteriorated gastrointestinal system. The treatment may require dietary change, nutrient supplementation, fibres and beneficial bowel bacteria.

Everything in the body is related and the weak and dysfunctional links in the chain of events must all be identified and addressed to solve the problem. When the nutrient ingestion, digestion, absorption, circulation, cellular acceptance and utilisation, and excretion are working correctly, the correct nutrients get into the cells, the genes use them to effects repairs, and the body heals itself naturally. The result is wellness. Chronic degenerative conditions caused by nutrient deficiencies can be reversed when the missing nutrients are made available to the cells. This is what natural healing is all about.

The importance of accurate diagnosis

Because each individual has a somewhat

different genetic endowment, people react differently to nutrient deficiencies. Some produce enzymes that enable them to weather the storm better than others. For example, some can cope with less chromium than others and still manage their blood sugar levels fairly well. In some people, it is their livers that suffer. Others find their lungs react first, or it may be the kidneys, or brain. The nutritional lacks will affect their vulnerable point. That is where trouble will first be noticed. Often several organs or systems will be involved, some more so than others. Treatment will depend on which organs are most affected. If it is the liver, then the nutrients which the liver mostly uses are needed. If it is the blood, then other nutrients come into play. And so forth.

What is needed for this kind of work is a diagnostic tool that enables the practitioner to survey the body structures - the organs and systems - quickly and accurately. I am not aware of any tool which is better for this purpose than the modern diagnostic iridology developed by the Munich school of Joseph Angerer.

Traditional iridology has been around for centuries, but modern iridology began in 1946 when Angerer started to investigate its possibilities as a tool for understanding the causes of health disorders.

Professor Angerer trained thousand of medical practitioners in his methods and together they assembled a vast body of knowledge correlating eye signs with illnesses and metabolic disorders of all kinds. The science of iridology was greatly enhanced by the use for the first time of powerful binocular microscopes which brought in view subtle details never seen before.

For more than four decades, Angerer-associated practitioners have met at annual conferences to share new discoveries relating eye signs to common or rare health problems. Using information from x-rays, autopsies, surgical operations, blood tests and hospital observations, the base of knowledge has grown rapidly until it now fills an encyclopaedia of several volumes. This was edited by Angerer until his death in 1993 at age 87.

Today the work is carried on by Angerer's disciples. I received my training in the Angerer method in Sydney and have found it to be an invaluable tool for accurate, holistic diagnosis of health problems. I also use blood tests etc. to confirm, clarify, or modify the diagnoses I have made using Angerer's science.

Using the Angerer method with a powerful binocular microscope one can identify inflammation, atrophy, underfunctioning and hyper-functioning, toxicity, degenerative processes, and tendencies to break down of all the organs for example liver, kidneys, lungs, skin, brain, heart, spleen, blood, and all the endocrine glands for example pituitary, adrenals, thyroid, thymus, ovaries, testicles etc. etc. The list of what can be identified is enormous. Usually the eye diagnosis taken together with the patient's history, symptoms and signs yield a clear indication for treatment. The length of time required to accomplish this during the initial consultation is generally about one and

half hour. When called for I refer the patient to another health practitioner.

The medicines I use to treat patients are all natural ones, because the last thing I want to do is add to the patient's toxic burden by giving him/her more xenobiotic (alien and toxic) molecules. Nutrients including vitamins, minerals, amino acids, essential fatty acids and proper herbal medicines are not toxic and the body's biochemistry can make use of them without stress or harmful side effects.

These days the use of nutrients and herbs is based on scientific research, clinical studies, and recently even some double blind medical trials. The fact that the medicines are natural does not mean that their use is unscientific.

Metabolic detective work in natural healing

One does need to do some metabolic detective work to devise the optimum treatments for patients. There are many case studies that I could give to illustrate this point, but for reasons of space I will just mention one to give you a general idea of how it works.

Case study: Mrs M came to my Clinic with poor circulation to the hands and feet. In Mrs M's case her hands and feet were cold and white in summer and blue and "freezing" in winter. She had to dress up warmly in summer and in winter wore gloves and overlapping pairs of socks day and night, indoors and out. This ameliorated the problem a little but certainly did not solve it. Now 67, she has had the condition since age 17 - fifty years of suffering. She had been to several practitioners during this time but had never found relief. She came to me hoping I might be able to help (I had previously treated her sister, who had a difficult health problem of a different nature).

I spent an hour and fifteen minutes in my initial consultation with Mrs M, during which time I took notes on her health history, diet and lifestyle pattern, symptomatology, and then had a look at her eyes through my binocular microscope. Mrs M, I saw, was a neuro-lymphatic constitutional type, indicating she had a sensitive nervous system providing her with excellent understanding of herself and others, but predisposing her to enervation from emotional and physical stress. Also, her mucous membranes were inflamed throughout her body. The natural healing treatment for Mrs M consisted of:

- Liquid vitamin B Complex to heal her nervous system and provide more energy.
- Vitamin C and Bioflavonoids to improve her circulation, especially the micro circulation in her liver.
- Omega 3 and Omega 6 fatty acids in correct ratio and dosage to relax and elasticise the blood vessels, make the blood cells unclump to carry oxygen to the cells more efficiently, and improve the strength and efficiency of red blood cell membranes, and

body cell membranes generally.

- A herbal combination known to be an effective blood cleanser.
- A trace mineral known to improve cellular oxygen biochemistry and electron flow in energy producing reactions in the mitochondria of cells.
- Vitamins A and D and Papain and Alpha Amylase to improve mucous production and heal the inflamed mucous membranes.

About a month later, Mrs M held her hands over my desk and informed me that both they and her feet were warm. Her mucous membranes were also much improved. This case taught me that even long-standing conditions will sometimes yield to synergistic therapy, combining several metabolic treatments to correct a difficult and stubborn condition. Of course, one needs to constantly expand one's knowledge of Anatomy and Physiology, Biochemistry, Nutrition and Pathology to meet the challenges of metabolic detective work and problem-solving. Happily, it turns out that the method just illustrated - aggregating a number of natural treatments to solve a problem - can be applied usefully to virtually every patient's health problems because natural medicines used are both non-toxic and compatible with each other and with the body's biochemistry.

Conclusion

I hope my talk has helped you to deepen your understanding of the philosophy of natural healing, to appreciate that it is an approach which is firmly supported by the most modern ideas of science, and is effective in practice.

When your body is properly nourished, according to the biologically unique requirements of you as an individual, and when the causes of ageing are addressed, you can come close to achieving your inherent genetic potential for optimal health and wellness.

When you are truly well your whole life unfolds differently. You have the strength and energy to seize larger opportunities. You also enjoy the little pleasures of life more. You are at your best. Who knows what will happen? I invite you to do all that you can to ensure that your personal journey to wellness is successful.

FOOTNOTES

- 1) Dean Black, **Inner wisdom: The challenge of contactual healing**, Springfield, UTAH: Tapestry Press, 1990, 27
- 2) A.Castiglione, **A history of medicine**, (New York: Alfred A Knopf, 1958, 178
- 3) Black, 28
- 4) Irby DM, "Shifting paradigms of research in medical education", **Academic Medicine**, 1990; 65: 622-3
- 5) Harris Coulter, **Divided legacy & the conflict between homeopathy and the American Medical Association**, 2nd ed (Richmond, CA: North Atlantic Books, 1982), 54, Quoted in Black, p 30
- 6) Lee Foundation for Nutritional Research, "The rife Microscope or 'Facts and Their Fate'", in **The Royal Rife Report**, Borderland Sciences Research Foundation, Gorberville CA, 1991, p.13
- 7) E. Douglas Hume, **Béchamp or Pasteur**, Fremont, Calif.: Custodian Publishing Co., 1976
- 8) Ilya Progogine and Isabelle Stangers, **Order out of Chaos: Man's new Dialogue with Nature**", (New York: Bantam Books, 1984), 29. Quoted in Dean Black, 41
- 9) RA Weinberg, **The Molecules of Life**, No.4 Molecules of Life: Readings from Scientific

Hypoglycemia and Atherosclerosis

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

Atherosclerosis, also called arteriosclerosis, is a disease of the arterial wall in the vascular system in which there is a thickening of the wall with deposition of fatty matter. This follows the insidious accumulation of lipids, mainly cholesterol complexed to proteins within the inner lining (intima or endothelium) of the artery. Coronary heart disease together with other cardiovascular diseases such as strokes account for about 45 % of all deaths in Australia.¹

Injury hypothesis

Although the cause of the disease has remained obscure, many medical investigators have accepted the theory that atherosclerosis is the body's response to injury to the cells inside the three-layered wall of the artery and particularly injury to the inner wall - the endothelium - as a result of damage to the artery, whether from physical, mechanical, viral, chemical or drug origin.

Once the endothelium has been damaged large white blood cells (monocytes) and platelets adhere to the injured sites where they release growth factors (also called mitogens - chemicals that stimulate mitosis or cell division in specialized cells) which stimulate smooth muscle cells to migrate into the intima. Cellular debris accumulates underneath a fibrous cap (consisting of collagen, elastin and glycosamino-glycans²) which attracts fat and cholesterol. This forms yellowish plaques of cholesterol, thickening the vessel wall and causing reduced blood flow to organs. The atheroma continues to grow until eventually it blocks the artery. The atheromas also serve as sites for blood clot formation (thrombosis), which can further interfere with the blood supply. Symptoms usually appear when the blood flow has been reduced by 90 per cent.³

A tissue is said to be *ischaemic* when it receives inadequate supply of oxygen, because of insufficient blood flow. Myocardial ischaemia (heart muscle) is associated with increased concentrations of *blood lactic acid* produced by *anaerobic respiration*⁴ of the ischaemic tissue. This condition causes pain as in angina pectoris and intermittent claudication. The heart muscle is adapted to respire aerobically and cannot respire anaerobically for more than a few minutes. Irreversible injury to the heart muscle is called **myocardial infarction** or (MI) and may cause cellular death or *necrosis*.

Risk factors in the development of athero-

sclerosis include heredity, smoking, obesity, reactive hypoglycemia, diabetes, advanced age, hypertension and high blood cholesterol concentrations.

The role of cholesterol in atheroma formation

Epidemiological studies have shown that high blood cholesterol levels are not necessarily associated with the development of atherosclerosis. Although the avoidance of saturated fats in the diet - prevalent in foods of animal origin and tropical oils such as coconut and palm oil - is universally recommended, 80% of plasma cholesterol originates from synthesis by the liver and only 20% comes from the diet.⁵ The body synthesizes cholesterol from acetyl-CoA a product of glucose, amino acids, or fatty acids metabolism. Cholesterol synthesis by the liver is suppressed by dietary cholesterol. However, high blood cholesterol can also be produced as a result of an inherited condition known as *familial hypercholesterolaemia*. This condition is inherited as a single dominant gene; individuals who inherit two of these genes have extremely high cholesterol concentrations regardless of diet. This group would be vulnerable to heart disease.

The kind of cholesterol that is of particular interest is what is called *low-density-lipoproteins* or **LDL-cholesterol**, produced in the liver. These like *high-density lipoproteins* cholesterol or **HDL-cholesterol** are carried in the blood attached to protein carriers. Cells in various parts of the body contain special receptors which "catch" these protein carriers and then engulf the protein by what is called *receptor-mediated endocytosis*. The cells then use the cholesterol for different purposes. Because, cholesterol is an important precursor of various steroid hormones, including progesterone, testosterone, oestradiol (an oestrogen) and cortisol, as well as vitamin D by the action of light on the skin.

The cells in the endothelium of blood vessels possess receptors for LDL-cholesterol, but not for HDL-cholesterol.⁶ Hence, LDL-cholesterol alone plays a role in atheroma formation. After it has entered the endothelium, LDL protein may stimulate the monocytes to secrete growth factors that either start or contribute to the development of atheroma. One theory has it that people with hypercholesterolaemia have livers with a low number of LDL receptors or dysfunctional receptors, so that they are less able to remove LDL from the blood. It could also mean that

cholesterol is "dammed up", because the body lacks enzymes or coenzymes for their further conversion to other substances.

Oxycholesterol necessary in atheromas

The good news from a treatment point of view is that **LDL Cholesterol has to be oxidized** (ie., react with oxygen) before they can attach to the lining of the endothelium. This explains why high cholesterol levels alone is not sufficient to produce atherosclerosis. Such oxidation may be catalysed by iron and/or copper complexes, or pre-formed oxidized LDL may come from the diet and infiltrate the artery wall. The oxidation of saturated fats is speeded up by high iron in the blood. Red meat consumption is a major source of that iron.⁷ Oxidized LDL will delay any endothelial wound healing.⁸ Hence, *if the blood stream has high concentrations of antioxidants*, such as vitamin C, vitamin E, zinc, selenium, beta-carotene, vitamin A etc. they will be able to destroy any pre-formed oxidized fats before they combine with LDL to damage blood vessels walls.⁹ These antioxidants are normally found in a natural diet, but the amounts required to combat atherosclerosis may well be beyond what the modern "civilized" diet can provide. Monounsaturated fats, such as olive oil and canola oil do not oxidize easily, and this may explain the low rate of coronary heart disease (CHD) in such countries as France, Italy and Greece. These oils used in cooking are protective against oxidation.

Maillard reaction

Glucose is very readily oxidized. When table sugar is heated in the presence of oxygen it turns brown. This is oxidation of sugar and explains in simple terms the *Maillard reaction*¹⁰. What essentially happens is that people with high levels of blood sugar - as in diabetes and reactive hypoglycemia - produce superoxide radicals and hydrogen peroxide in the Maillard reaction. This is bound to happen with diets that are high in sugar and proteins. Superoxides and hydrogen peroxides attack the unsaturated fatty acids in membrane cells of arteries. The body can protect itself by an enzyme, called *superoxide dismutase (SOD)*, which converts superoxides to hydrogen peroxide. Then an iron containing enzyme, called *catalase*, converts the hydrogen peroxide to harmless water and molecular oxygen. SOD depends on *zinc, copper* and *manganese* as coenzymes. These enzymes were adapted over the last 20,000 years to deal with low dose

peroxides, but with the recent onslaught of massive doses of sucrose and other free radical generators in the diet and environment, they just cannot cope.

The addition of a glucose molecule to protein is technically called *glycosylation*. Thus, oxidized glucose is a free radical generator. The most exposed cells are endothelial cells lining blood vessels in atherosclerosis.¹¹ Glucose-induced free radicals give rise to cross-linking of proteins, deactivating some enzymes and stiffening lung, heart muscles and arteries, usually seen as part of the process of ageing.

Diabetics and hypoglycemics - a pre-diabetic condition - are therefore particularly vulnerable to the development of atherosclerosis. Nevertheless, there is some evidence that excess sugar can induce atherosclerosis only in people with "sucrose-induced hyperinsulinism", in other words; people with reactive hypoglycemia and not in people with a normal ability to handle sugars^{12, 13}.

Supplementation with **ascorbate** (vitamin C - 2,000 mg per day) is a simple remedy for preventing the oxidation of the glucose component in glycosylation. In most plants and animals, but not in human beings, ascorbate is synthesized from glucose. This means that there is a special affinity between glucose and ascorbate: ascorbate can target all the cells in the body that have access to glucose. Ascorbate not only prevents atherosclerosis, but also helps to synthesize collagen, prevent platelet aggregation and detoxify the body. Ascorbate stimulates conversion of cholesterol to bile, which is then excreted. Thus it helps to reduce cholesterol levels. It protects against cancer of the colon and strengthens the immune system among the many other benefits. It even helps to prevent cataracts of the eye.

It would seem that the adverse effects of an occasional sugar-binge could be lessened by taking extra vitamin C.

Homocysteine & pyridoxine deficiency theory

Another theory points to the high levels of homocysteine found among patients with atherosclerosis. Homocysteine, which is toxic to the body, is derived from methionine, an essential sulphur containing amino acid, during its conversion to cysteine. Cysteine is vital for the formation of **disulphide bridges** in proteins which hold polypeptides together and gives stability to molecules such as *cartilage*, *keratin* and *immunoglobulins*. It is also the precursor of **glutathione**, a tripeptide (made from three amino acids; glycine, glutamic acid and cysteine) and involved in removing peroxides.¹⁴ The enzymatic conversion of homocysteine to cysteine may be blocked because of a deficiency of pyridoxine (vitamin B6) which is required as a co-enzyme.¹⁵ Other coenzymes such as folic acid and vitamin B2 & B12 have been implicated.¹⁶ Animal food sources are high in methionine, the source of homocysteine and cysteine and generally poor in pyridoxine (Vitamin B6). Moreover, there appears to be a link between high homocysteine levels and low copper levels.

Copper deficiency adversely affects the *super oxide dismutase* (SOD), an important free radical scavenger, which is dependent on copper.¹⁷

Monoclonal hypothesis

Another theory states that intimal plaque formation is the result of a benign cancerous growth initiated by the mutagenic effects of chemical pollution, such as hydrocarbons and cholesterol by-products. The aryl hydrocarbons¹⁸, including benzopyrene and methyl cholanthrene, found in cigarette smoke¹⁹ are extremely carcinogenic and damaging to the vessel walls. They then promote cancerous growth of endothelial cells. Under this heading would come the effects of environmental pollutants, such as peroxides, smog, insecticides, herbicides, lead, cadmium, mercury, toxic fumes from vehicles and industrial wastes and so on. Exposure to environmental toxins is not merely intermittent, but the effects accumulate day in day out as part of our lifestyle.

Confusion about coffee drinking

There is much scientific debate whether coffee or caffeine contributes to atherosclerosis.

A typical cup of coffee contains between 50 and 150 mg of caffeine, while a cup of tea contains 50 mg and a 12 ounce cola contains about 35 mg. Although the average consumption is 150-225 mg per day, some people consume in excess of 7,500 mg per day. Thus people suffering from 'caffeinism' may have symptoms of anxiety, headaches, depression, *heart palpitations*, twitching and the 'restless leg syndrome'.²⁰

Werbach²¹ quotes reports showing a positive link between coffee consumption and high cholesterol levels (hyperlipidaemia) and atherosclerosis. Male heavy coffee drinkers were found to eat approximately 24% more saturated fats than non-coffee-drinkers?²²

On the other hand, a recent study followed up a group of 85,474 women over a ten year period through a questionnaire requesting extensive details about dietary factors including coffee consumption. No association was found between coffee consumption and risk of CHD. Nor was there any association between caffeinated and decaffeinated coffees.²³

Boiled coffee, commonly consumed in Scandinavia, was found to elevate total and HDL cholesterol as well as triglycerides.²⁴

The manner of preparation of the coffee seems to play a role. Coffee bean oils in boiled coffees contain diterpenes which may be responsible for a rise in serum cholesterol.²⁵

Caffeine intake was found to be associated with osteoporosis, breast cancer, endometriosis in another group of 728 postmenopausal women, because they affect hormone levels. Caffeine was negatively associated with testosterone levels. It was concluded that coffee intake of more than 2 cups/day may influence post-menopausal conditions.²⁶

Another extensive review article looked at several studies about coffee consumption and decaffeinated coffee with inconclusive results, except that heavy coffee drinkers showed sig-

nificant increases in LDL & HDL levels.²⁷ Coffee consumption of 1 or 2 cups of coffee per day was not associated with increased risk of pancreatic cancer.²⁸

But coffee consumption in several studies were found to be associated with increased urinary excretion of calcium, and therefore positively related to the incidence of hip fractures in women.^{29, 30}

Increasing coffee (including filtered) consumption was found to be associated with increased levels of plasma homocysteine and risk for cardiovascular disease. As was noted before high homocysteine levels are found among some atherosclerotic patients and this may be related to deficiencies of several coenzymes (B2, B6, B12, folic acid). No such relation was found with tea drinking, or decaffeinated coffee. There was a strong association between smoking and coffee consumption.³¹ In fact some argue that coffee intake increase the desire for cigarettes.³²

It would seem that the overall weight of evidence would favour avoidance of coffee drinking in the prevention and treatment of atherosclerosis.

Smoking

By now the general public would be fully aware of the adverse effects of smoking - including passive smoking - on arteriosclerosis and this need not to be elaborated any further. But it is not often realized that in addition to damaging the wall of arteries via hydrocarbons and carcinogens, it also causes the constriction of blood vessels.³³ Thus when arteries are blocked with atheromas, a further restriction is brought about by smoking.

This also increases the danger that a **blood clot** can form (thrombosis) which can travel to any part of the body. When a blood clot becomes lodged in the lungs it can form a *pulmonary embolus* cutting off the supply of blood and oxygen to a part of the lung. When it is lodged in the leg it is called *thrombophlebitis*. When it travels to the brain it may cause a *stroke*.

Symptoms of atherosclerosis

The first signs of atherosclerosis occur when blood vessels are partially blocked which prevent oxygen and other nutrients reaching organs and/or stop metabolic waste products being drained away. Thus symptoms can affect any part of the body, where there is a narrowing or *stenosis* in the blood vessels. But certain organs are particularly defenceless against oxidative attack such as vessels supplying blood to the heart. This can lead to coronary heart disease (CHD), cardiovascular disorders and also angina pectoris. Circulatory problems come in many forms as for example the bulging bluish vessels in aching legs known as *varicose veins* prevalent among women, *strokes*, *haemorrhoids* around the anus, or *phlebitis* inflammation of a vein and even *cataract*³⁴ of the eye.

Angina pectoris is accompanied by any of the following: excruciating pain that is crushing, constricting, strangulating, suffocating,

burning felt in the chest. There may be weakness, sweating, anxiety, palpitations, nausea.

There are stable and unstable anginas. If you have *stable angina* you should be able to predict what sort of activity brings on the angina. Sometimes a large meal may bring on angina as the heart has to work harder when it is digesting food. Sometimes emotional upsets, or being in cold weather, or if you are exposed to food sensitivities; these may all trigger angina attacks.

Unstable angina occurs rather unpredictably and should be considered as a warning sign for a more serious heart condition.

Treatment of angina

Conventional medicine uses *nitrites*, *beta-adrenergic blockers* and *calcium channel blockers*. *Nitroglycerin* is by far the most used nitrate and can give relief within minutes. However, it may cause headaches in about half the users. *Beta-adrenergic blockers* - atenolol and metoprolol - may slow down the heart rate, lower blood pressure and reduce cardiac oxygen consumption. *Calcium channel blockers* - Diltiazem, Nifedipine, Verapamil - quell coronary artery spasms.

Nutritional treatment of angina should never be undertaken without consultation with your doctor. Natural treatment for atherosclerosis in general will be discussed below. In case of angina supplementation with magnesium may reduce the need for calcium channel blockers as a long-term aim in treatment.

Coenzyme Q10 or ubiquinone is an integral component in biosynthesis of ATP (biological energy) in mitochondria of muscle cells. It is part of the electron transport chain in the membrane of mitochondria - organelles in the cell where energy is produced. More CoQ10 is found in heart muscles than in any other tissue.³⁵

Vegetables are poor sources of CoQ10, but it is to be found in rice bran, wheat germ, walnuts, sesame seeds, soya beans, broccoli, spinach, peanut butter, sardines and mackerel (very high), eggs, butter, beef and pork. Some cholesterol lowering drugs interfere with the synthesis of CoQ10.³⁶

Studies have shown that the supplementation with CoQ10, some as little as 30-60mg/day (others have used 100-225 mg/day) not only reduces episodes of *angina pectoris*, but also lowers *hypertension*^{37, 38}. CoQ10 has also been credited with stimulating insulin production and stabilising blood sugar levels.³⁹

Carnitine⁴⁰ a derivative of the essential amino acid *lysine* is also involved with energy production in the mitochondria of heart muscle cells. It is required for transport of fatty acids into the mitochondria for oxidation. As it is readily formed from lysine, there should be no deficiency. However, supplementation [DL-Carnitine 1500 mg twice daily (1 month trial) or L-carnitine 750 mg twice daily] has been shown to increase the exercise workload among angina patients^{41, 42}.

Herbal therapy for angina

Hawthorn (*Crataegus laevigata*) containing cardiogenic procyanidin flavonoids is highly recommended as a long-term remedy for angina, for it both relaxes the walls of coronary arteries as well as calms the heart.⁴³ Perhaps **Ginkgo biloba** - a well-known vascular dilator - should also be considered.⁴⁴

Other herbs in the literature that may also be helpful are **Yarrow** (*Achillea millefolium*), **Gotu Kola** (*Centella Asiatica*), **Siberian Ginseng** (*Eleutherococcus senticosus*), **Chamomile** (*Matricaria chamomilla*), **Mullein** (*Verbascum thapsus*).

However, **Licorice** (*Glycyrrhiza glabra*) may aggravate an angina condition.

Intermittent claudication is merely another sign associated with general *atherosclerosis* or the degenerative disease of blood vessels feeding the calf muscle with oxygen. It typically presents itself with cramps of the calf after walking a certain distance. The reason for the pain is similar to that of *angina pectoris* as muscles are starved of oxygen by a poor blood supply which is unable to get rid of the waste products during the exercise.

The condition is often found as a by-product of diabetes, especially in patients who smoke and/or drink coffee.

Doctors usually consider an operation to replace the arteries in the leg. It would be up to doctors and the patient to decide how serious the condition is and whether you have time to experiment with some "natural treatment", before considering an operation.

Again **Hawthorn** (*Crataegus laevigata*) injections of extract improved blood flow and walking distance in a study with 20 patients with intermittent claudication.⁴⁵ This may indicate that Hawthorn may also be a herbal remedy for intermittent claudication.

As in the case of angina, **Ginkgo biloba** in the form of an extract (GBE) has been used in the treatment of intermittent claudication.⁴⁶ In an experimental placebo-controlled study involving 37 patients over a period of 24 weeks, claudication distance significantly improved, however Doppler⁴⁷ ankle response to exercise and post-exercise recovery time failed to show significant changes.⁴⁸ Werbach and Murray⁴⁹ quote many other studies generally showing the beneficial effects of this herb on intermittent claudication and other diseases of the peripheral vascular system.

However, a review article by Ernst⁵⁰ and Draback et al.⁵¹ quoting one study with 18 elderly patients found no significant changes in peripheral blood pressure, walking distance or severity of leg pain after three months of supplementation with GBE. Perhaps the period of "three months" may have been too short. Most studies support the use of ginkgo biloba and because the herb has virtually no side-effects it is strongly recommended in the treatment of intermittent claudication.

Patients receiving 300 mg of **Vitamin E** per day in addition to standard exercise programme showed significant greater improvement on a walking test after 4-6 months compared to unsupplemented patients.⁵²

Aspirin and NSAIDs

It is important to prevent clotting by "thinning" the blood. Doctors usually prescribe half a tablet of aspirin per day (75-300 mg/day) as a means of reducing the tendency of blood to clot in a diseased blood circulation^{53, 54}. Aspirin can damage the gastric mucosa, but it may have a protective effect against colon cancer further down the tract.⁵⁵ However, aspirin used over a long period of time may cause irritation to the lining of the stomach and intestines. This may aggravate a history of indigestion or ulcers. Over half of all people taking aspirin have traces of blood in their stools. Some people are hypersensitive to aspirin causing alarming reactions, including severe breathing difficulties.

Furthermore, some of the side effects of aspirin and other NSAIDs are inhibition of cartilage repair (inhibition of collagen matrix synthesis) and accelerated cartilage destruction, a point often overlooked in the treatment of osteoarthritis and other collagen diseases, including atherosclerosis.⁵⁶ In fact, aspirin and NSAIDs have been found to be associated with acceleration and increased joint destruction⁵⁷, a point not to be ignored when dealing with osteoporosis in postmenopausal women. Besides, aspirin increases excretion of vitamin C from the body and may lead to a folic acid deficiency.⁵⁸

This can all be avoided by using natural nutritional anti-thrombotic agents such as omega-3 and omega-6 fatty acids, pantethine, capsicum, garlic, ginger and onions and various anti-thrombotic herbs.

Conventional treatment of atherosclerosis

The disease is so widespread that most people are aware of the response by conventional medicine. Various medications are prescribed to treat related conditions such as high blood pressure (hypertension), blood clots (thrombi) and cholesterol problems. Surgical procedures aim to restore diseased arteries by removing plaque deposits or by replacing damaged sections of arteries (called angioplasty). In emergencies, these may be unavoidable, but it should be realised that there is a 30-40% restenosis rate after angioplasty, including balloon angioplasty. One cannot help to marvel at the sophistication of surgical technology in the treatment of the disease. Surgical intervention does not correct the causes of atherosclerosis and doctors usually place patients on a special nutritional program to prevent restenosis.

In a study with rabbits it was reported that "It is too early to state definitely whether oxidant-induced proliferation contributes to restenosis, but the beneficial effects of pharmacological doses of vitamin E in the current study, suggest that this natural antioxidant should be tested further for effectiveness in other animal models"⁵⁹ In other words, it may be worthwhile to dose on vitamin E, prior to the operation (and with the approval of the surgeon⁶⁰). Pre-treatment with other antioxidants, especially zinc involved in tissue repair, vitamin C, selenium, B-complex vita-

mins should also be considered to speed up postoperative recovery.

Chelation therapy

Although not part of conventional treatment, more and more people are turning to chelation therapy as an alternative to bypass surgery. Chelation - which derives from "clawing" - refers to the fact that certain chemicals and substances are able to claw out or remove calcium from arterial plaques. Many nutrients such as vitamin C, garlic and onions, and the amino acid cysteine have weak chelation properties. But it does not compare with the spectrum of the activities of intravenous ethylene diamine tetra-acetic acid (commonly abbreviated to EDTA). Conventional medicine normally uses this therapy to treat lead poisoning. But proponents of chelation therapy believe that it is a safe, relatively inexpensive (compared to cost of surgery) and an effective alternative treatment for atherosclerosis. They suggest that chelation therapy will become a standard option by every cardiologist in the not distant future. Ten to forty sessions are required depending on the individual case, whereby patients visit their doctors and are injected with EDTA under strict monitoring conditions. Some meta-analyses of studies indicate a positive relationship between EDTA therapy and improved cardiovascular function.^{61, 62.}

It is sometimes difficult to distinguish between genuine scientific, critical evaluation of this procedure and medical politics that prevent it from enjoying a wider acceptance by the profession. Certainly, if it were recognised by conventional medicine and accepted under the medical benefit scheme, the government would save millions of dollars in taxpayers' money for heart operations.

Readers who want to know more about *Chelation therapy* are referred to an article under that title by Dr Joachim Flührer in the *Hypoglycemic Health Newsletter of September 1994 page 3-6 in Volume 10 No 3.*

Natural treatment for atherosclerosis

In the treatment of atherosclerosis the first step is usually and should always be a visit to your GP or cardiologist, because symptoms - stenosis of an artery, or stroke - are matters of life and death. Natural treatment applies to prevention or to lifestyle corrections *prior to* and *after* the crisis situation has stabilized.

Reactive hypoglycemia a major cause of atherosclerosis

It is clear that people with a glucose intolerance - that is reactive hypoglycemics and diabetics or those with "hyperinsulinism" - are especially at risk of developing atherosclerosis. The idea that fats and cholesterol in the diet may not be the main villains but rather excess sugar, is not new. Ross Hall⁶³, quoting many epidemiological studies and flawed evidence in contemporary research said categorically: "The villain is sugar". And Yudkin agrees following a study of a group of people who were fed sucrose and who then showed an increase of all the factors necessary in the

development of atherosclerosis.⁶⁴

Hence the first recommendation would be to adopt the hypoglycemic diet, which is similar to the diabetic diet. Perhaps the most important mineral supplement in the hypoglycemic condition is **chromium**, which together with nicotinic acid forms the *glucose tolerance factor*. This factor facilitates the interaction of insulin with receptors on cell surfaces for the utilization of glucose. Such a diet should also be supported by herbs having hypoglycemic actions such as **fenugreek**⁶⁵ and/or **goat's rue**.⁶⁶ These herbs will help stabilize blood sugar levels as well as providing a host of other benefits.

The aim is to reduce as much as possible all sources of **oxidized LDL-cholesterol**. A vegetarian diet is ideal as it will avoid most dietary sources of fats and cholesterol of animal origin. If such a diet is unacceptable, perhaps patients should restrict their diet to the consumption of white meat and fish⁶⁷, provided they have low blood cholesterol levels to begin with. The following points should be taken into consideration:

- **Avoidance of sugar**, coffee, smoking including passive smoking, refined carbohydrates, such as white bread, white rice, cakes and sugar-containing drinks etc. is essential

- **Avoidance of saturated fats** mainly from meat and dairy products, such as milk and eggs and to be replaced with "the good" fats, mono-unsaturated fats (olive oil, canola oil). Avoid margarine and reduce butter intake.

- Increase your **fibre** intake. (Guar gum, psyllium seeds, pectins). A high-fibre, low fat, complex carbohydrate diet is the mainstay of natural treatment. This is mainly provided in vegetables and fruits. In one study, 200 gram of raw carrots (two medium sized) were eaten daily at breakfast by "normal" subject. After three weeks results included an 11 percent reduction in cholesterol levels, a 50 percent increase in bile and fat excretion, and a 25 percent increase in stool weight.⁶⁸ Fibre helps the body to get rid of cholesterol via bile excretion.

- **Complex carbohydrates**, consisting of starches, legumes, whole grains, fruits vegetables, nuts and seeds, with meat portions to be kept at a minimum. Once atherosclerosis is stabilised this may be slightly modified.

- **Supplementation** of diet with anti-stress B-complex vitamins tablets, including chromium, zinc, selenium and Vitamin C (at least 2,000 mg per day), Vitamin E at least 500 IUs per day is essential.

- **Niacin**: up to 6 gram per day (starting with 100mg 3 times per day) have been shown in several studies to reduce LDL cholesterol levels. (Niacinamide is ineffective). However, niacin may have significant side effects such as flushing. The flushing effect can be reduced by taking aspirin to inhibit histamine release.

- **Obesity** should be reduced as much as possible, particularly if you have elevated cholesterol levels. Daily **exercises** will help reduce weight, improve your circulation (important in intermittent claudication). Contrary to popular belief weight reduction programmes

are not very successful. Supplementation with Evening Primrose Oil and fishoil will help reduce weight. (See HypoNL Sep 96). If all else fails, the rind of the fruit from **Brindle Berry** (*Garcinia cambogia*) contains *hydroxycitric acid* which is said to burn off fat continually, suppresses appetite, is a digestive aid and is exceedingly safe even for people with diabetes or reactive hypoglycemia.

- **Antioxidants** such as vitamin C, vitamin E, Beta carotene, zinc, selenium are the most important antioxidants in the treatment of atherosclerosis. They will prevent the oxidation of glucose and stop oxidation of LDL-cholesterol.

- **Zinc and vitamin C** are not only antioxidants but also involved with collagen synthesis. Collagen is a protein that holds the body together. (kolla=glue, genein=to produce). The membranes of blood vessels require collagen. There are certain herbs that are said to stimulate collagen synthesis. (See below.) Take at least 2,000 mg of vitamin C and 25 mg of chelated zinc

- **Vitamin E** is especially important in *intermittent claudication* as it helps to strengthen blood vessel wall. If you have high blood pressure, the blood pressure can rise initially in response to the more effective pumping action of the vessel. People with hypertension usually start off with 50-100 IU's per day and then build up to about 500 IU's per day. If you have no hypertension you can take up to 500 IU's per day divided throughout the day. Vitamin E also helps build new blood vessels by-passing the diseased blood vessels accompanied with exercise.

- **Homocystinuria** (excretion of homocystine in the urine) may be a contributory factor in atherosclerosis. Excess homocystine - often an inherited abnormality - may be due to an incomplete metabolism in the conversion of methionine to cysteine. This conversion may be blocked by a deficiency of **pyridoxine (Vitamin B6), vitamin B12, B2, and Folic acid**. Some studies have shown that **betaine** (6 gm daily) plus folic acid and pyridoxine may lower homocystine levels.

- **Lysine/arginine** are two amino acids that play an important role in cholesterol synthesis. As the amount of lysine relative to arginine increases in food it seems to encourage cholesterol synthesis. Soy has a very low level of lysine and this may account for the fact that soy protein may reduce blood cholesterol. High arginine sources are: *Almonds, bacon, Brazil nuts, buckwheat, carob, chicken-breasts, cashews, barley, coconuts, eggs, gelatine, hazel nut, lentils, linseed, millet, oats, cooked oatmeal, oysters, peanuts, peanut butter, green peas, chick peas, pecans, popcorn, raw cereals, raisins, rice (brown), sesame, skim milk, Beef, soy-beans, sunflower, turkey, walnuts, wheatgerm, white flour, whole-wheat bread.*

- **Eggs** are a rich source of cholesterol. One egg provides about 280 mg of cholesterol. Two eggs per day have been shown to increase LDL cholesterol by 33% and the time required for LDL oxidation was reduced by 37% in one study.⁶⁹ Studies like these have led nutrition

experts to ban the consumption of all eggs. However, there are many studies that found no significant increase in blood cholesterol, or changes in coagulation profiles when volunteers ate up to two eggs a day for long periods. For those with normal blood cholesterol levels the consumption of one egg a day is not expected to pose a serious problem and some nutrition experts allow one egg a day^{70, 71}. Studies have shown that the manner of preparation of eggs is important. Fried eggs and hard-boiled eggs yield the highest cholesterol, whereas soft-boiled eggs produced the least cholesterol. As in the case of sugar, when cholesterol is heated it produces cholesterol oxides. The longer an egg is heated (cooked), the more oxides it will produce.⁷² Eggs, however, contain their own antioxidants. It has 1.6 mg/100g of vitamin E, but the white of the egg is devoid of all fat-soluble vitamins. They also contain vitamin B12. However, remember that eggs, milk and meat are also sources of arachidonic acid, forerunners of inflammatory prostaglandins (PGE2), which may promote clotting and constrict arteries. (see HypoNL, Sept 1996, pp7-13)

In the case of *familial hypercholesterolaemia* a mostly vegetarian diet would probably be the best choice, especially in the initial stages of treatment.

- **Milk** should be restricted, especially by people who have a lactose intolerance or have adverse reaction to fractions of milk proteins. Milk raises LDL cholesterol, but skim milk may lower elevated cholesterol levels. **Yoghurt** is a good alternative and is reported to lower cholesterol.

- **Coffee** should preferably be avoided, otherwise not to exceed two cups per day. Decaffeinated coffee is preferred.

- **Coenzyme Q10** (30 mg daily in divided doses) supplementation may reduce anginal episodes as well as hypertension.

- **Carnitine** (L-Carnitine 750 mg twice daily) plays a role in energy production in mitochondria by stimulating breakdown of long-chain fatty acids. It is derived from lysine an essential amino acid obtained in food. Supplement is useful in heart conditions.

- **Alcohol:** 2 drinks daily (12 oz beer) is allowed, although research is controversial. Anything above the 2 drinks have the opposite effects. Moderate alcohol consumption stimulates insulin production and may be beneficial to non-insulin dependent diabetic patients. However insulin-dependent diabetics should avoid alcohol, because alcohol inhibits the formation of energy from non-carbohydrate precursors (gluconeogenesis).⁷³ Some studies show that alcohol may inhibit platelet aggregation (anti-thrombotic)^{74, 75} with a meal high in saturated fat. Although alcohol consumption is associated with increased diameter of coronary arteries, this may be harmful with diseased arteries, because they are already dilated to the limit⁷⁶.

Flavonoids (polyphenols) found in plants also known as *Procyanidolic Oligomers* or leukocyanidins or pycnogenols are powerful antioxidants. An example are those found in the skin of grape seed. Thus some authors

claim that one or two glasses of red wine with a meal may inhibit the development of atherosclerosis^{77, 78}. Unfortunately, recovering alcoholics will have to abstain from alcoholic beverages altogether.

- **Magnesium** supplementation may reduce irregular heartbeats (arrhythmia), angina due to spasm of coronary arteries, may reduce LDL-cholesterol, raise HDL cholesterol, help heart muscles to retain potassium, may displace calcium from smooth muscle cell surfaces (responsible for constriction) and thereby reduce hypertension. Stress situations are known to increase the need for magnesium⁷⁹.

- **Essential fatty acids (EFAs)** belong to either the omega-6 or the omega-3 family and these serve as precursors to prostaglandins which are hormone-like substances with important effects on the circulatory system. They derive from vegetable oils, flaxseed oil, walnuts and fish oils (obtained from consumption of cold water fish). They are fully discussed in the Hypoglycemic Health Newsletter Sep, 96 pp 10-11. They enhance immunity, reduce clotting, relax arteries, are anti-inflammatory, lower cholesterol⁸⁰, lower triglycerides and lubricate arteries. Some reports claim that diabetics and people with reactive hypoglycemia lack an enzyme - delta-6-desaturase - necessary in the breakdown of linoleic and linolenic acid to the active ingredients.^{81, 82, 83} Supplements with Evening Primrose Oil and fish oil (MaxEPA) by-passes this obstruction. Supplements with EFAs may prevent platelet aggregation involved in clotting, benefit lipid metabolism and blood viscosity. Because essential fatty acids themselves readily oxidize it is important to increase antioxidants intake, for example vitamin E.

Herbal remedies

Readers are advised to consult a qualified herbalist if they want to use botanicals in the treatment of atherosclerosis. The following is for purposes of information only. Some herbs may have undesirable side-effects and in a serious disease as atherosclerosis, herbal medicines should always be prescribed by qualified health practitioners. Werbach & Murray (1994) **Botanical influences on illness** is an excellent sourcebook of clinical research.

Reference has already been made to **Hawthorn** and **Ginkgo Biloba** in the natural treatment of angina pectoris and intermittent claudication.

Alfalfa seeds (*Medicago sativa*) contain saponins which combine with cholesterol and bile salts to prevent cholesterol absorption. This herbal remedy is known to regress atheromas. Soybean and chickpea also contain saponins. You can buy alfalfa seeds in health food stores, roast it in the oven and then grind it into a fine powder. Using ten teaspoon of alfalfa-seed meal per day is an alternative to cholesterol-lowering medication in cases of *familial hypercholesterolaemia* with few side-effects.⁸⁴ But cholesterol in the diet is not as important as the prevention of the body's ability to make cholesterol from other starting material.

Brindle berry (*Garcinia cambogia*) is use-

ful in a weight reduction programme. The active ingredient - hydroxycitric acid - inhibits lipogenesis, may lower cholesterol and triglycerides.

Bromelain (400-1000 mg daily) the proteolytic enzyme derived from the pineapple plant has been shown to inhibit platelet aggregation and break down arteriosclerotic plaques in a group of patients with angina pectoris.⁸⁵

Cholagogues are herbs that stimulate the production of bile from cholesterol and therefore may have cholesterol lowering effects. There are many such herbs only few will be mentioned here: Garlic and onions, Goldenseal, Milk thistle, Parsley, Peppermint, Sage, Thyme, Wild yam and Yarrow.

Fenugreek seeds (*Trigonella foenum-graecum*) Debittered fenugreek seed powder not only lowers blood lipids, but also stabilizes blood sugar levels. It has been used for sore throats, digestive problems and lactation problems of nursing mothers. It reduces arthritic pains. Do not use it during pregnancy as it may cause uterine contractions.

Garlic (*Allium sativum*) and onions eaten in great quantities have been found to inhibit oxidation of cholesterol. The effective ingredient in garlic is allicin. Commercial garlic preparations concentrated for alliin is odourless and is converted in the body to allicin by the enzyme alliinase. Dose 8 mg alliin or total allicin potential of 4,000 mcg. Both garlic and onions inhibit platelet aggregation and will help dissolve thrombosis (increase fibrinolytic activity). Garlic lowers blood pressure, LDL-cholesterol, triglycerides and increased HDL-cholesterol. Garlic can be taken by ingesting a whole clove with water. The crushing of garlic releases the enzyme *alliinase* which converts alliin into allicin the active ingredient and which gives it its distinctive odour.

Ginger (*Zingiber officinale*) may inhibit platelet aggregation and reduce cholesterol levels as well as lowers high blood pressure. It is used in motion sickness, morning sickness, nausea, menstrual cramps, colds, flu, osteoarthritis and rheumatoid arthritis.

Gotu Kola (*Centella asiatica*) is a herb involved with collagen formation and therefore is often used for poor circulation of the leg as in intermittent claudication. Also used in oedema. Other herbs said to stimulate collagen are: Horsetail (*Equisetum arvense*), **Witch hazel** (*Hamamelis virginiana*).

Gugulipid (*Commiphora mukul*) refers to the extract of oleoresin of the mukul myrrh tree. It has a lipid lowering effect similar to or better than clofibrate. It is also reported to inhibit platelet aggregation.

Khella (*Ammi visnaga*) may dilate the coronary arteries. Its action appears to be similar to the calcium-channel blocking drugs. Active ingredient *Khellin* may reduce angina.

Milk thistle (*Silybum marianum*) contains a flavonoid complex, silymarin found in the seeds, has lipid lowering activities. Silymarin is said to have the ability to increase the liver's content of glutathione, an important chemical in the process of detoxification of free radicals and inactivating damaging hormones or drugs.

It also increases bile secretion, thus excreting excess cholesterol.

Procyanidolic oligomers or Oligomeric proanthocyanidins (PCOs) derived from Grape seeds skin (*Vitis vinifera*), bark of Landes' pine, bracts of Lime tree and leaves from Hazelnut tree, peanut skins, Sudan cola nuts, hawthorn fruit, Ginkgo biloba, seeds of honey locust pod, Chinese wisteria, bilberries are potent antioxidants helpful in atherosclerosis, diabetes mellitus, peripheral vascular diseases, retinopathy, vascular fragility, visual dysfunction, wound healing, varicose veins, bruises, platelet aggregation.

Other miscellaneous herbs with possible beneficial actions in peripheral vascular disease are: Bilberry (*Vaccinium myrtillus*) especially in eye disorders, Bupleurum (*Bupleurum chinense*), Lime blossom (*Tillia europea* & *Tilia cordata*), Mistletoe (*Viscum album*), Siberian ginseng (*Eleutherococcus senticosus*), Siler a Chinese herb (*Ledebouriella divaricata*), Witch Hazel (*Hamamelis virginiana*).

FOOTNOTES

- 1) Scotland has the highest rate and Japan the lowest with 210 and 20 deaths respectively per 100,000 in males aged 25-64. The death rate in Australia in 1988 was 115/100,000. Florence TM, Setright RT (1994), **The handbook of preventive medicine**, Kingsclear Books, Crows Nest, Australia, 273-5
- 2) **Elastin** is a rubberlike protein in connective tissue in conjunction with collagen and polysaccharides, which can stretch to several times their length and return to its original size. **Glycosaminoglycans** consist of repeating disaccharide units forming a matrix for intercellular cement resulting in a smooth, lubricating layer of mucous membranes.
- 3) Murray, M & Pizzorno JE (1990), **Encyclopaedia of natural medicine**, Optima, 158
- 4) **Anaerobic respiration** is a type of cell respiration in which energy is released from glucose and other fuels without the presence of oxygen.
- 5) Florence TM, Setright RT (1994), **The handbook of preventive medicine**, Kingsclear Books, Crows Nest Australia, 140
- 6) The HDL cholesterol is not taken into the artery wall because these cells lack membrane receptors required for engulfment (endocytosis) of HDL particles and hence do not contribute to atherosclerosis. In fact a high proportion of HDL as compared to LDL is beneficial as it indicates that cholesterol is being carried away from blood vessels to the liver. Fox Si (1993), **Human physiology**, Wm C Brown Pubs, Melbourne Australia, 357
- 7) This may also explain the association between red meat and colon cancer. Morgan J, Leake DS (1995), Oxidation of low density lipoprotein by iron or copper at acidic pH, **J Lipid Res** 36: 2504-2512
- 8) Boissonneault GA, Wang Y, Hong Chung B (1995), Oxidized low-density lipoproteins delay endothelial wound healing: lack of vitamin E, **Ann Nutr Metab** 39: 1-8
- 9) Slattery ML, Jacobs DR, Dyer A et al. (1995), Dietary antioxidants and plasma lipids: the Cardia study, **J Am Coll Nutr** 14: 635-642
- 10) Florence TM, Setright RT (1994), pp 550-1, 350
- 11) Ceriello A, dello Russo P, Amstad P, Cerutti P (1996), High glucose induces antioxidant enzymes in human endothelial cells in culture, **Diabetes** 45: 471-477
- 12) Yudkin J, Szanto S (1970), **Proc Nutr Soc** 29(1): Suppl: 2A-3A
- 13) Szanto S, Yudkin J (1969), **Postgrad Med J** 45: 602-7 & 608

- 14) A selenium dependent enzyme, **glutathione peroxidase** functions together with **glutathione** to protect cells against the destructive effects of hydrogen peroxide. Iron in the blood in ferrous form is readily oxidized to ferric form by hydrogen peroxide to yield **methemoglobin**. The latter inactivates the oxygen carrying capacity of red blood cells. Glutathione peroxidase protect against the formation of methemoglobin.
- 15) Lehninger, AL (1982), **Principles of biochemistry**, Worth Publishers Inc, NY, 620
- 16) A diet high in methionine derived mainly from animal food sources enhances the development of atherosclerosis. Endothelial cells may lack the enzymes to metabolize or re-methylate homocysteine to methionine. Vitamin B2, B12 and folic acid are required as co-enzymes in this conversion. Toborek M, Hennig B (1996), Dietary methionine imbalance, endothelial cell dysfunction and atherosclerosis, **Nutr Res** 16: 1251-1266
- 17) Klevay LM (1992), The homocysteine theory of arteriosclerosis, **Nutr Rev** 50(5): 155
- 18) **Hydrocarbons** are compounds that contain only hydrogen and carbon, such as alkanes, alkenes, alkynes and arenes.
- 19) The oxidative modification of LDL particles leads to incorporation of LDL cholesterol into macrophages. Smokers are particularly vulnerable to the invasion of LDL oxysterol into the endothelium of blood vessels. Vitamin E levels were low in LDL among smokers. Scheffler E, Wiest E, Woehle J. et al (1992) Smoking influences the atherogenic potential of low-density lipoprotein, **Clin Invest** 70: 263-268
- 20) Murray M & Pizzorno J (1990), 264
- 21) Werbach MR (1987), **Nutritional influences on illness: A sourcebook of clinical research**, Third Line Press Inc. Tarzana, Cal. 48-9
- 22) Haffner SM et al. (1985) **Am J Epidemiol** July, 1985.
- 23) Willett WC, Stampfer MJ, Manson JE et al. (1996), Coffee consumption and coronary heart disease in women. A ten-year follow-up, **JAMA** 275(6): 458-462
- 24) Binn NIM (1995), Caffeine, **BNF Nutrition Bulletin Vol 20, Supplement**, 278-285
- 25) Van Rooij J, van der Stegen G, Schoemaker RC et al. (1995), A placebo-controlled parallel study of the effect of two types of coffee oil on serum lipid and transaminases: Identification of chemical substances ...etc **Am J Clin Nutr** 61(6): 1277-1283
- 26) Ferrini RL, Basrrett-Connor E (1996), Caffeine intake and endogenous sex steroid levels in postmenopausal women, **Am J Epidemiol** 144(7): 642-645
- 27) Review, (1992), Regular or decaf? Coffee consumption and serum lipoproteins, **Nutr Rev** 50(6): 175-178
- 28) Gullo L et al (1995) Coffee and cancer of the pancreas: An Italian multicenter study, **Pancreas** 11(3): 223-229
- 29) Tavani A, Negri E, La Vecchia C (1995), Coffee intake and risk of hip fracture in women in northern Italy, **Prev Med** 24, 396-400
- 30) Tavani A, Negri E, La Vecchia C (1995), Calcium, dairy products, and the risk of hip fracture in women in northern Italy, **Epidemiol** 6, 554-557.
- 31) Nygard O, Refsum H, Ueland PM et al. (1997), Coffee consumption and plasma total homocysteine: The Hordeland Homocysteine study, **Am J Clin Nutr** 65, 136-143
- 32) Davies S, Stewart A (1987), **Nutritional medicine**, Panbooks, 143
- 33) Arterial pressure reponse increased by 11% after cocaine, by 12% after one cigarette and when they were combined by 45%. Moliterno DJ, Willard JE, Lange RA et al. (1994), Coronary-artery vasoconstriction induced by cocaine, cigarette smoking, or both, **N Engl J Med** 330(7): 454-459
- 34) **Cataract** - opacity of the lens may be caused

- by many factors. The most common form occurs as a result of a deteriorating blood supply to the eye, the lens becomes hard and shrinks. Spots may be seen that do not move, unlike those seen by perfectly normal people. Treatment is surgical. Diabetics are particularly at risk of developing cataracts.
- 35) Heart mitochondria, which have very profuse folds in membranes (cristae) and thus a much larger area of inner membrane, contain over 3 times as many sets of electron-transport systems as liver mitochondria. Heart mitochondria make up almost half of all the cells. Lehninger (1982), 470 & 698
 - 36) Florence TM, Setright RT (1994), 278
 - 37) Folkers K, Yamamura Y Eds., (1984), **Biomed & Clin Aspects of Coenzyme Q, Vol 2**, Amsterdam, Elsevier Science Publishers (1980) p. 247 & 253-62 (Respectively)
 - 38) Kamikawa T et al. (1985) Effects of coenzyme Q10 on exercise tolerance in chronic stable angina pectoris, **Am J Cardiol** 56: 247
 - 39) Keeton K (1992), **Longevity: The science of staying young**, Viking NY
 - 40) The amino acid **carnitine** is synthesized from lysine (and from methionine) and vitamin C is essential for conversion. Men have a greater need than women. It reduces triglycerides. Useful in myocardial infarctions and intermittent claudication by removing free fatty acids.
 - 41) Cherchi A et al (1985), Effects of L-carnitine on exercise tolerance in chronic, stable angina: A multicenter, double-blind, randomized, placebo controlled crossover study, **Int J Clin Pharmacol Ther Toxicol** 23(10): 569-72
 - 42) Chaitow L (1989), **The healing power of amino acids**, Thorsons Pubs Ltd., Wellingborough UK, 35
 - 43) The dosage for **hawthorn** extracts standardized to contain 1.8% vitexin-4-rhamnoside or 10% procyanidins is 120-240 mg three times per day; for extracts standardized to contain 18% procyanidolic oligomers the dosage is 240-480 mg daily. For a review of various articles, Ammon HPT, Handel M (1981), Crataegus, toxicology and pharmacology, **Planta Med** 43(2): 105-20; **Planta Med** 43(3): 209-39; **Planta Med** 43(4): 313-22
 - 44) **Ginkgo biloba** and **Panax Ginseng** not only have been shown to improve cognition and memory but may have other health benefits in man such as slowing down blood coagulation, inhibiting platelet aggregation, increasing fibrinolysis (related to dissolution of blood clots) and prevent lipid peroxidation. Petkov VD, Kehayov R, Belcheva S et al. (1993) Memory effects of standardized extracts of *Panax ginseng* (G115), *Ginkgo biloba* (GK501) and their combination Gincosan (PHL-00701), **Planta Med** 59:106-113. See also Koltringer P et al. (1993) **Fortschr Med** 111(10): 170-2 (*in German*)
 - 45) Di Renzi L et al. (1969) [On the use of injectable crataegus extracts in therapy of disorders of peripheral arterial circulation in subjects with obliterating arteriopathy of the lower extremities.] **Boll Soc Ital Cardiol** 14(4): 577-85 (*In Italian*)
 - 46) The literature is replete with studies supporting the use of Ginkgo biloba in the treatment of peripheral vascular diseases, including angina and intermittent claudication. For a general review see Kleijnen J, Knipschild P (1992), Ginkgo biloba, **Lancet**: 1136-9
 - 47) **Doppler scanning** (from Christian Doppler) is a technique using ultrasound imaging to monitor the flow of blood or the beating of the heart.
 - 48) Thomson GJ et al. (1990) A clinical trial of Ginkgo Biloba Extract in patients with intermittent claudication, **Int Angiol** 9(2): 75-8
 - 49) Werbach Mr & Murray MT (1994), **Botanical influences on illness: A sourcebook of**

clinical research, Third Line Press, Tarzana, Cal, 276-277

- 50) Ernst E (1996), Gingko biloba in treatment of intermittent claudication. A systematic research based on controlled studies in literature, **Fortschr Med** **114**, 85-87
- 51) Draback H, Petersen JR, Winberg N et al (1996), The effect of Gingko biloba extract in patients with intermittent claudication, **Ugeskr Laeger** **158**: 328-31
- 52) Haeger K (1982), Long term study of alpha tocopherol in intermittent claudication, **Ann NY Acad Sci** **393**: 369-375. This follows an earlier article by the same author in 1973. Walking distance and arterial flow during long term treatment of intermittent claudication with d-alpha-tocopherol, **J Vasc Dis** **2**: 280-287
- 53) Aspirin inhibits the cyclo-oxygenase enzyme that is needed for prostaglandin synthesis and helps to reduce inflammation, Fox Si (1993), **Human physiology**, Wm C Brown Pubs, Melbourne Australia, 288
- 54) Aspirin inhibits the biosynthesis of prostaglandins by inactivating prostaglandin synthase. Prostaglandins enhance inflammatory effects and aspirin is anti-inflammatory because it blocks the first step in the synthesis of prostaglandins. Stryer, L (1988), **Biochemistry**, WH Freeman and co, NY, 992
- 55) Report in **International Clinical Nutrition Review**, October 1995 Vol 15, No 4, page 194 on workshop on *Nonsteroidal Anti-inflammatory Drugs (NSAIDs) and Cancer* discusses fully the effects of aspirin, and especially its role in the prevention of colon cancer.
- 56) Brooks PM, Potter SR, Buchanan WW (1982), NSAID and osteoarthritis - help or hindrance, **J Rheumatol** **9**: 3-5
- 57) Newman NM, Ling RSM (1985), Acetabular bond destruction related to nonsteroidal anti-inflammatory drugs, **Lancet** **II**: 11-13
- 58) Mindell, Earl (1979), **The vitamin bible**, Guild Pub, London, 195
- 59) Lafont AM, Chai YC Cornhill JF et al. (1995), Effect of alpha-tocopherol on restenosis after angioplasty in a model of experimental atherosclerosis, **J Clin Invest** **95**: 1018-1025
- 60) Vitamin E may initially increase high blood pressure as it strengthens smooth muscles in arterial walls. By starting on small doses (50 IUs/day) and then gradually increasing, one can overcome this obstacle.
- 61) Chappell LT, Stahl JP (1993), The correlation between EDTA chelation therapy and improvement in cardiovascular function: a meta-analysis, **J Advancement in Medecine** **6(3)**: 139-160 (Refs:73)
- 62) Olswezer E, Carter JP (1989), EDTA chelation therapy: A retrospective study of 2870 patients, **J of Advancement in Medecine** **2(1/2)**: 197-211 (Refs:27)
- 63) Hall RH (1974), **Food for nought: The decline in nutrition**, Vintage Books, Random House, NY, 226
- 64) Yudkin J (1993), Diet and coronary heart disease: Why blame fat? **Journal of the Royal Society of Medicine**, Sep **92** **85**: 515-516
- 65) A study with 60 poorly controlled diabetic subjects showed that supplementation with 25g/d fenugreek seed powder for 24 weeks, glycemic control improved in 80% of patients. Sharma RD, Sarkar A, Hazra DK et al. (1996), Use of fenugreek seed powder in the management of non-insulin-dependent diabetes mellitus, **Nutr Res** **16**: 1331-1339
- 66) There are many herbs that have hypoglycemic activity. Some of these are: Beans, beetroot, bilberry, birch leaves, bitter lemon, blueberry, burdock, dandelion, fenugreek, fringe tree, garlic, ginseng, goat's rue, horehound, juniper berries, milk thistle, mulberry, nettle, woody climber.
- 67) There is an association between red meat & colon cancer, but not with chicken and fish. This may be significant! Bingham SA, Pignatelli B, Pollock JRA et al. (1996), Does increased endogenous formation of N-nitroso compounds in the human colon explain the association between red meat and colon cancer?, **Carcinogenesis** **17**: 515-523
- 68) Murray & Pizzorno (1990), 162
- 69) Levy Y, Maor I, Presser R, Aviram M (1996), Consumption of eggs with meals increases the susceptibility of human plasma and low-density lipoprotein to lipid peroxidation, **Ann Nutr Metab** **40**: 243-251
- 70) Christie JS (1991), **Food for vitality**, Bantam Books, Toronto, 61-2
- 71) Florence TM, Setright RT (1994), 156
- 72) Bland J (1981), **Your health under siege**, Harper & Row, Pubs Sydney, 70-71
- 73) Christiansen C, Thomsen C, Rasmussen O et al. (1993), Acute effects of graded alcohol on glucose, insulin and fatty acid levels in non-insulin dependent diabetic subjects, **Eur J Clin Nutr** **47**, 648-652 & Same authors, **Br J Nutr** **76**: 669-675
- 74) Struck M, Watkins T, Tomeo A et al. (1994), Effect of red wine and white wine on serum lipids, platelet aggregation, oxidation products and antioxidants: a preliminary report, **Nutr Res** **14**: 1811-1811
- 75) Suzukawa M, Ishikawa T, Yoshida H et al. (1994), Effects of alcohol consumption on antioxidant content and susceptibility of low-density lipoprotein to oxidative modification, **J Am Coll Nutr** **13**: 237-242
- 76) Bricklin M (1990), **Natural healing: A complete A to Z guide for Australians**, Penguin Books Australia Ltd, 21
- 77) Marmot M, Bruner E (1991), Alcohol and cardiovascular disease: status of the U-shaped curve, **Br Med J** **303**:565-568
- 78) Jepson RG, Fowkes FGR, Connan PT, Housley E (1995), Alcohol intake as a risk factor for peripheral arterial disease in the general population in the Edinburg Artery Study, **Eur J Epimedemiol** **11**: 9-14
- 79) Seelig MS, Master MPH (1994), Consequences of magnesium deficiency on the enhancement of stress reactions; preventive and therapeutic implications (A review), **J Am Coll Nutr** **13(5)**: 429-446
- 80) Smit MJ, Verkade HJ, Havinga R et al. (1994), Dietary fish oil potentiates bile acid-induced cholesterol secretion into bile in rats, **J Lipid Res** **35**: 301-310
- 81) Brekke OL, Espevik T, Bardal R, Bjerve KS (1992), Effects of N-3 and N-6 fatty acids on tumor necrosis factor cytotoxicity in WEHI fibrosarcoma cells, **Lipids** **27**: 161-168
- 82) Holden RJ (1995), The estrogen connection: the etiological relationship between diabetes, cancer, rheumatoid arthritis and psychiatric disorders. **Med Hypotheses** **45**: 169-189
- 83) Siguel EN, Lehrman RH (1996), Prevalence of essential fatty acid deficiency in patients with chronic gastrointestinal disorders, **Metabolism** **45(1)**: 12-23 (Refs:58)
- 84) In some patients the saponin material in alfalfa may produce anaemic problems in some sensitive people. Bland J (1981), 74
- 85) Nieper HA (1978), Effect of bromelain on coronary heart disease and angina pectoris, **Acta Med Empirica** **5**: 274-75

Recent Research in Clinical Nutrition

Editor

DHEA enhances immune function in the elderly

As we age there is diminished activity of T and B cells. Administration of 50 mg of DHEA (dehydroepiandrosterone) may reverse this. Infections by the Coxsackie virus and herpes simplex type 2 encephalitis have been shown to be reversed by DHEA, but HIV patients have not shown the same promise. Authors studies the effects of 50 mg of DHEA for 20 weeks in a group of 9 elderly men. This led to an increase in various cells of the immune system. Extended studies are still required to investigate the potential of DHEA for treating immunodeficiency.

Khorram O, Vu L, Yen SSC (1997), Activation of immune function by dehydroepiandrosterone (DHEA) in age-advanced men, **J Gerontol** **52A**, M1-M7

Cranberry juice and urinary tract infections

The authors researched the literature for evidence showing the efficacy of cranberry juice in treating urinary tract infections (UTI). There were several theories: 1) that urinary pH is reduced and bacterium is inhibited by the more acidic pH, 2) cranberry juice has bacteriostatic properties, 3) cranberry has anti-adherence effects on bacteria, thus limiting their ability to attach to the bladder wall.

There was little evidence for theory 1, but there was some evidence for theory 2 as cranberry juice increases hippuric acid excretion, however the concentration was found to be insufficient for bacteriostasis. Theory 3 was found to have the most scientific support as cranberry juice inhibited adherence in most of the UTI pathogens tests. In comparison with other fruits (grapefruit, mango, guava, orange, pineapple juice) only cranberry juice and blueberry juice displayed this anti-adherence activity. Cranberry juice was found to

remove the presence of bacteria rather than preventing an infection.

Barry p (1997), Does cranberry juice play a therapeutic role in urinary tract infection? A literature review, **J NZ Diet Assoc** **51(1)** 17-18

Garlic assists selenium action

Both garlic and selenium have previously been shown to enhance the detoxification of chemical carcinogens. Authors investigated the protective effects of garlic powder and sodium selenite against DNA adduct formation, which was further decreased by the addition of garlic powder, or the allyl sulphur compounds S-allyl cysteine or diallyl disulphide.

Schaffer EM, Liu J, Milner JA (1997), Garlic powder and allyl sulphur compounds enhance the ability of dietary selenite to inhibit 7,12-dimethylbenz(a)-anthracene-induced mammary DNA adducts, **Nutr Cancer** **27**, 162-168

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Plesman, J	Nutritional Tidbits: Rice Syrup, Honey, Adrenal Exhaustion, House-Dust Mite	Sep 1985	4
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Plesman, J	When An Allergy Is Not An Allergy (Stomach Ulcers)	May 1987	2
Plesman, J	Zinc Toxicity	May 1987	4
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Plesman, J	Allergies: Natural Defence System Gone Haywire	Nov 1988	6
Plesman, J	The Glycemic Index Isn't All It's Cracked Up to Be	Mar 1989	9
Plesman, J	ALCAT: The New High Tech Allergy Test	May 1989	2
Plesman, J	Linoleic Acids Help Fight Allergies	May 1989	4
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Plesman, J	How Environmental Pollution Affects Our Health (Part 2)	Aug 1989	7
Plesman, J	The Omega-3 Phenomenon	Aug 1989	12
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Priest, Anna	The Curious Link between Heavy Metals, Chemicals, and Parasitic Invasion	Mar 1997	12
Rapp, Dr D, Spijzer, D (Subeditor)	Sugar and Hyperactivity	Jun 1995	7
Reading, Dr CM	Advances in Orthomolecular Psychiatry	Mar 1997	2
Reading, Dr C & Sulima, J	The Rheumatoid/Schizophrenia Connection	Dec 1995	5
Reams, D L	The Relation Between Hypoglycemia and Psychology	Dec 1990	3
Rodale's 1961	Carob Flower for Sweet Tooth	Sep 1990	8
Roe, D.A.	List of Drug/Nutrients Interaction	Mar 1995	9
Salisbury, B.Sc.	Keeping an Eye on your Health	Jun 1996	2
Samra, Dr G	Warning Against Hypoglycemic Name Tags	Jul 1986	6
Samra, Dr G	Hyperactivity, Hyperactive Child Syndrome, Minimal Brain Dysfunction	Oct 1986	5
Samra, Dr G	Voll Machine, Arthritis, Hypoglycemia	May 1987	3
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Samra, Dr G	Fatigue (Lecture given to MINDS)	Sep 1991	6
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Samra, Dr G	Fit for Life: A Life-Time of Remedies	Dec 1992	2
Samra, Dr G	New Theories of Chronic Fatigue Syndrome	Mar 1994	2
Samra, Dr G	Comments on Introduction by Dr W Vayda	Dec 1994	6
Samra, Dr G	What is New in Fatigue Therapy and Dietary Management of Arthritis	Mar 1995	2
Samra, Dr G	CWASQ, What's New in Fatigue Therapy & Hypoglycemic Management	Jun 1997	2
Samra, Nicole	Women and Body Image	Sep 1995	2
Schofield, Dr G	Alternative Medicine	Oct 1986	11
Schofield, Dr G	I Hate My Hypoglycemia	Jun 1991	2
Sharp, E	Labelling of Products	Sep 1985	3
Siebert, Dr B (CSIRO)	Are Chemical Residues in Food a Worry?	Sep 1995	10
Skinner D et al.	Minds Total Wellbeing Programme	Aug 1989	10
Smith, Ingrid	Milk Free Pikelets & Biscuits	Sep 1993	8
Smithkline Biologicals	Hepatitis B: Prevention is the only cure.	Jun 1991	7
SOMA	Orthomolecular Medicine and The College of Psychiatrists	Nov 1989	6
Stokes, J (CSIRO)	Egg Facts	Mar 1995	8
Stokes, J (CSIRO)	Fish and Oil	Jun 1995	5
Stokes, J (CSIRO)	Red Meat and Heart Disease	Dec 1995	7
Stokes, J (CSIRO)	Dietary Fibre	Dec 1995	7
Stokes, J (CSIRO)	Changing Diets	Jun 1996	6
Swannack, N	Member's Letter	Nov 1987	4
Taylor, C	Spiritual Aspects of health	Jun 1993	2
Vayda, Dr W	Hypoglycemia, Food Allergies and Candida Albicans	Apr 1986	1
Vayda, Dr W	Mood Foods: Change your Food to Change your Moods	Jun 1990	3
Vayda, Dr W	Chronic Fatigue Syndrome	Sep 1990	3
Vayda, Dr W	Stop The Mould	Mar 1991	4
Vayda, Dr W	The Lady on the Skids	Mar 1992	2
Vayda, Dr W	Psycho-Nutrition (Bookreview)	Mar 1993	5
Vayda, Dr W	Introduction to Chronic Fatigue	Dec 1994	4
Whitmore, Trixie	Chemical-Free Living	Jun 1992	2
Whitmore, Trixie	Painting and Decorating	Jun 1992	7
Williams, Xandria K	Living With Allergies	Dec 1991	7
Yates, Dr J	Name Of the Association	Apr 1986	5
Yudkin, J (Nutrisearch Bull)	Heart Disease Sugar and Fat - The Real Villain	Jun 1993	8

Continued from page 12

Hepatitis associated with low vitamin E

This study compared 48 patients with viral hepatitis with 32 healthy controls. In patients with highly elevated serum transaminase (ALT>100U/L) which may be diagnostic of acute liver disease, vitamin E plasma levels were significantly lower (17.5 ± 4.8 mmol/L) than in controls (22.7 ± 4.2 mmol/L, $p<0.001$).

The lower vitamin E levels in patients with acute or chronic viral hepatitis with high activity of disease may be due to free radical-mediated liver injury.

Von Herbay A, Stahl W, Niederau C et al. (1996), Diminished plasma levels of vitamin E in patients with severe viral hepatitis, **Free Rad Res 25(6)**, 461-466

Oral contraceptives lower beta-carotene

This study analysed the impact of oral contraceptives on cardiovascular disease with particular emphasis on the antioxidant role of beta-carotene, a provitamin with antioxidant activity. Data were collected from 582 women who took part in the National Health and Nutrition Survey 1987-88 (VERA-study).

Twenty five per cent of those using oral contraceptives has beta-carotene levels below the desired value (21.5mg/dl) and the figure was 34% for current users. Women in the 35-44 age group showed significantly lower beta-carotene levels compared to younger women. In this older group the beta-carotene lowering effect of oral contraceptives was stronger than any other factor measured, including smoking.

Berg G, Kohlmeier L, Brenner L (1997), Use of oral contraceptives and serum beta-carotene, **Eur J Clin Nutr 51**: 181-187

Antioxidants slow down Alzheimer's Disease

Treatment with antioxidants may delay the functional deterioration of moderately affected Alzheimer's patients. A study by Sano and

coworkers [reported in N Eng J Med 336, 1216-22 (1997)] examined the response of 342 such patients to administration of selegiline (a monoamine oxidase inhibitor) and alpha-tocopherol (vitamin E). The vitamin E treated group experienced the best results where outcome was measure by loss of basic daily living skills, severe dementia or time to the occurrence of death. Cognitive score tests did not improve with antioxidant treatment and the question is raised as to whether this treatment improved the general health of patient rather than specifically managing the Alzheimer's condition.

Fricker J (1997), Antioxidants may slow Alzheimer's disease progression, **Lancet 349**: 1300

L-Arginine protects diabetics against lipid peroxidation

It is well-known that diabetics face a myriad of long-term complications and these are thought to be due to oxidative damage as shown *in vitro* and *in vivo* research. L-arginine has the potential in reacting with aldehydes and thereby reducing lipid peroxidation products. The authors gave 30 patients 1 gram of L-arginine (or placebo) twice per day for 3 months. Malondialdehyde levels (lipid peroxidation products) decreased significantly in response to 3 months of L-arginine treatment. When the groups were crossed over the same effect was seen. This treatment may have potential in minimising the oxidative damage in conditions of diabetes mellitus.

Lubeck B, Hayn M, Kitzmüller et al. (1997), L-arginine reduces lipid peroxidation in patients with diabetes mellitus, **Free Rad Biol Med 22**: 355-357

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