The Hypoglycemic Health Association

NEWSLETTER

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PATRON: Dr George Samra

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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.

Our Next Public Meeting will be at 2 PM on Saturday, the 7 March, 1998 at the YWCA, 2 Wentworth Ave, Sydney and our guest speaker is

Dr Mark Donohoe MB BS FASEM

who will be speaking on the subject of

“Managing Multiple Chemical Sensitivity”

Dr Mark Donohoe is well known in the area of natural and environmental medicine. In 1980 he obtained his bachelor of medicine and surgery at the Faculty of Medicine at Sydney University. He received further postgraduate qualifications with the Australian College of Nutritional Medicine and the Australian Society of Environmental Medicine. He was a founding member and now President of the Australian Comprehensive Medicine Association (ACMA) with a membership of about 200 medical practitioners. This association promotes and fosters safe and effective complementary medical practice within a framework of Total Health Care.

From 1991-1996 he was clinical director of the Original Australian Chronic Fatigue Syndrome team at the University of Newcastle using data gained from patients referred to the Environmental Medicine Centre (EMC) at Manly. He has contributed scientific article discussing the relationship between low level contamination with organochlorine pesticides and alteration of immunology and haematology [J Biochem and Molecular Medicine (1996 Jun) 58(1): 77-84].

Dr Mark Donohoe is an excellent public speaker and the Association is lucky to have him talk to us on Saturday, 7 March 1998.

Please note that the Annual General Meeting will be held at 1.30 pm half an hour before the public lecture by Dr Mark Donohoe. Copies of the Statement of Income and Expenditure for the year ended 31 December 1997 and the Auditor's report will be made available at the meeting. The Association would like to thank Mr Hugh Macfarlane, Chartered Accountant, for his free time given to the Association in the preparation of these documents. The activities of this Association are entirely voluntary. We don't receive any funding from government or private industry. Yet the cost of provision of public lectures and distribution of our Newsletters are the lowest of its kind, thanks to the members and the assistance given by health professionals. We also would like to thank Dr Robert Buist for sending copies of The International Clinical Nutrition Reviews, which keeps us up-to-date with the latest developments in clinical nutrition. This year we received a donation from Caryn Preston of Stockton. Many members have already paid the 1998 membership fees, but many others have not as yet sent in their fees. Expiry dates are shown in the top-right corner of address labels. We need more members, though, to keep us going. If you know of anyone that might be interested in becoming a member, please send in his/her name and address and we will send one free copy of the Newsletter as an introduction. Take photographic copies of the application form on the back of the Newsletter. Fees have remained the same: $15 pa or $10 for pensioners and students.
Menopause

Menopause is the cessation of menstruation and fertility. It occurs between the age of forty five to fifty five and may be a brain event rather than the popular conception that the ovaries run out of their egg supply and shrivel up.

An experiment conducted with mice revealed that young mice with old ova were able to reproduce, while old mice with young ova were infertile.

The result of menopause is that fewer egg follicles are stimulated. This results in reduced progesterone, oestrogen and testosterone, and menstruation ceases. The production of hormones does not cease altogether, it continues in the adrenals, body fat and a small amount from the ovaries. Better insulated women therefore continue to produce more oestrogen.

Symptoms of Menopause

- Hot flushes due to luteinising hormone (LH) rise in response to a decrease in the amount of progesterone and oestrogen.
- Depression, irritable, panic attacks, decreased ability to cope, decreased self confidence
- Decreased libido, vaginal dryness, susceptibility to thrush
- Fatigue
- Unstable blood sugar levels
- Urinary symptoms
- Rheumatic aches and pains
- Memory impairment
- Androgenising effects such as facial hair can occur when the ovaries continue producing relatively higher amounts of testosterone than oestrogen.

Increased risk of:
- Osteoporosis
- Heart Disease

The role of Progesterone

- Produced by ovary after ovulation and placenta in pregnancy
- Fall in progesterone 2 weeks after ovulation causes shedding of endometrium/menstruation
- In pregnancy progesterone increases secretory lining of endometrium which is essential for fertilised egg implantation
- Low amounts of progesterone leads to miscarriage
- Progesterone is a precursor for other hormones - oestrogen, testosterone, cortisone, thyroid

Cholesterol \rightarrow Progesterone \rightarrow sex and cortico steroid hormones

- Counters stress and aids immunity (precursor of cortisone)
- Burns fat
- Normalises blood clotting
- Strengthens and hydrates skin

THE WHOLISTIC MANAGEMENT OF MENOPAUSE AND PRE MENSTRUAL SYNDROME

By Dr Katrina Watson

Heart disease.

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. The Association thanks Elaine Campbell of Gymea for her donation of a plate for the raffle held at the 6th December 1997 meeting.

At the last meeting, Nicole Samra won the lucky door prize and unbelievably a second prize. She has just finished her final school examinations and we wish her the best of luck. Gesina Den Dulk also won the raffle at our last public meeting on the 6 December 1997. Please note that Gesina has won raffles at the last three meetings in a row. You better sit close to Gesina at the next meeting, you never know, her luck might rub off.

Dr George Samra's book The Hypoglycemic Connection (now out of print) is also available in public libraries.

Contributions of articles by members and practitioners are very welcome. The Editor is interested in meeting any person aspiring to research natural medicine and contribute articles as a sub-editor to this Newsletter.

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

Local meetings at Wahroonga

Marina Bridle would like to meet other members for mutual support and discussions. Her phone number is 9487 2910.

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 NQ616.46606/1 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.

The role of Oestrogen (Oestradiol, Oestriol, Oestrogen)

- Build up endometrium
- Secondary sexual characteristics
- Slows bone loss
- Improves HDL/LDL (cholesterol) ratio which leads to a decreased risk of heart disease.

By: Dr Katrina Watson
Should menopause be treated?

Whether to interfere at the time of menopause is a decision each woman will make for herself. It may depend on whether there are symptoms which are compromising the quality of her life (e.g. hot flushes, depression) and whether there is an increased risk of diseases such as heart disease or osteoporosis.

Although menopause is a natural event, the average life expectancy of women in 1900 was fifty years; in 1990 it is eighty years. With average life expectancy of women in 1900 and women living almost another lifetime again was fifty years; in 1990 it is eighty years. With average life expectancy of women in 1900 was fifty years; in 1990 it is eighty years. With average life expectancy of women in 1900 and women living almost another lifetime again.

The management of Menopause

Examination and Investigations:

- Pap smear
- Breast examination and teach monthly breast self examination
- Blood pressure and cholesterol assessment
- Test urine for glucose
- Mammogram
- Bone densitometry to evaluate the risk of osteoporosis

Treatment Options:

Oestrogen:

- Asian counties have a higher proportion of phyto-oestrogens in their diet. They also have a lower incidence of breast and colon cancer, heart disease, osteoporosis and menopause symptoms
- 2 cups phyto-oestrogens (soy, linseed, yam and rice)
- Red Clove tablets, strongest of the plant oestrogens; 200 times weaker than human oestrogen
- Human oestrogen replacement - Strongest = oestradiol tablets, implants and patches; Weakest = oestriol tablets or vaginal cream
- Herbs with oestrogenic action:
  - Dong Quai (“restores warmth and vitality to the tissues”, thickens wall of vagina, nourishes skin)
  - Black Cohosh (natural salicylates for muscle and joint pains, relieves fatigue)
  - Licorice (tonic for adrenal exhaustion/energy and increased memory.

How does this Oestrogen dominance occur?

1) Xeno-oestrogens are mock oestrogens which latch onto oestrogen receptors and accumulate in fat. They are found in pesticides, pesticide fed chickens and plastics. Fifty one of these oestrogen mimics have been discovered, and the consequences are a fifty percent drop in sperm count world wide in the last fifty years, breast, prostate and testicular cancer, oestrogen dominance and neurological diseases.
2) The OC pill and HRT contain only the strong oestrogen and synthetic progesterone. 2nd half of cycle. Progesterone drops at onset of menstruation.

Symptoms:

- Fluid retention, high BP
- Carbohydrate craving, hypoglycaemia
- Irritable, depressed, insomnia, ‘chaos’ in brain
- Constipation
- Fatigue
- Headaches
- Breast pain
- Acne
- Heavy periods

Oestrogen Dominance

One of the main factors according to Dr. John Lee’s twenty years work is a relative oestrogen excess or progesterone deficiency. The side effects of oestradiol (OC pill and HRT) in Mims are listed as “PMS like syndrome.”

HORMONE IMBALANCE - PRE MENSTRUAL SYNDROME AND PERI-MENOPAUSE

Normal Hormonal Situation:

- Oestrogen, progesterone and testosterone produced by ovaries and adrenals.
- Oestradiol - strongest oestrogen (OC pill and HRT).
- Oestrone - post menopausal oestrogen, mainly made in fat cells.
- Oestriol - weakest, 1000 times weaker than oestradiol
- made in placenta during pregnancy.
- Progesterone - large amount produced in last stage of pregnancy.
- oestradiol triggers progesterone in 2nd half of cycle. Progesterone drops at onset of menstruation.
- Testosterone - produced by adrenals and ovaries.

Additional Herbs:

- Chinese herbs
- St. John’s Wort (depression, anxiety)
- Siberian ginseng (mental alertness, ability to cope with stress, fatigue)
- Dandelion tea (liver drainage, diuretic)

What’s wrong with coffee?

- Insomnia
- Loss of important minerals and vitamins (leads to osteoporosis)
- Blood vessels constrict which leads to high blood pressure and headaches.
- Increases cholesterol
- Unstable blood sugar
- Increased stomach acid
- Dehydration (diuretic)

Wild yam (Dioscorea) contains a plant hormone which has a potent anti-inflammatory action and is very similar to progesterone and DHEA. Some creams contain this plant hormone while other creams and troches contain human progesterone which has been converted from the soy bean or yam plant hormone. Both are useful in treating depression, loss of libido, fatigue, fluid retention, muscle and joint pains, increasing bone density.

Anti-oxidants:

- Oxygen free radical scavengers
- Free Radicals cause cell damage and are produced by stresses such as pollution, pesticides, dietary fats, electromagnetic radiation, and excessive sunlight.
- Common anti-oxidants include vitamins A, C, E, Zinc, and Selenium

B Complex:

B vitamins assist neurological system and adrenals resulting in decreased stress, increased energy and increased memory.

Diet:

- Decreased coffee, sugar, alcohol, fat
- Increased water (1-2 L)

- Sarsparilla (slight testosteronal effect, therefore has been used as an aphrodisiac)
- Vitex Agnus - castus (hormone balancing, also progestogenic action)
- Sage (drying herb for flushes with sweats)
- Fennel
- Hops and alcohol

Progesterone

- Yam cream - which enters blood stream transdermally
- Troches - dissolve in mouth to enter blood stream directly, thereby avoiding digestion and liver breakdown
- Synthetic (HRT)

Exercises:

- Increases circulation
- Increases energy
- Stimulates digestion
- Strengthens bones
- Regulates hormones
- Increases ability to cope with stress

Synthetic (HRT) in Mims are listed as “PMS like syndrome.”

Oestrogen and Progesterone:

- Synthetic (HRT)
- Troches - dissolve in mouth to enter blood stream
- Yam cream - which enters blood stream
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- Sage (drying herb for flushes with sweats)
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2) The OC pill and HRT contain only the strong oestrogen and synthetic progesterone.
3) Constipation/gut dysbiosis, low fibre and high fat, diet result in increased synthesis of oestrogen and reduced oestrogen breakdown in the liver.
4) One alcoholic drink/day results in oestrogen excess or progesterone deficiency.
5) Irregular or absence of ovulation lead to menopause and earlier due to xeno-oestrogens and OC pills result in absence of ovulatory progesterone surge which leaves unopposed oestrogen cy-
**TREATMENT OF HORMONAL IMBALANCE IN PMS AND PERI-MENOPAUSE**

- Blood test to check the ratio of oestrogen to progesterone day 21 of the cycle can be used although the best guide is the clinical picture of symptoms.
- Natural progesterone delivered as a wild yam cream or sublingual troches. See 'role of Progesterone' for the benefits of natural progesterone.
- Low fat, sugar, coffee and high fibre diet.
- Sugar causes fluid retention, increases magnesium loss and compounds pre-menstrual hypoglycemia which causes sugar craving. A low fat diet reduces fluid retention, and breast inflammation. Coffee aggravates hypoglycemia and nervous tension. Fibre increases oestrogen binding and excretion.
- Magnesium (Mg) and Zinc are co-factors in over two hundred enzyme reactions.
- Zinc has an important role in hormone synthesis, brain function and glucose tolerance.
- Mg is often low in PMS, has a vital role in neur- muscular transmission (pelvic pain and calf cramps), energy production, reduces anxiety and reduces fluid retention.
- Multi B vitamin to aid oestrogen breakdown in the liver and combat stress.
- Vitamin B6 increases intracellular Mg, assists conversion of tryptophan to serotonin (which improves mood and sleep) and improves sugar metabolism.
- Vitamin E protects fats and sex hormones from oxidation effect. Taken with Vitamin C which regenerates Vitamin E and has an anti stress effect.
- Omega 3 and 6 oils (e.g. Flaxseed) necessary for hormone synthesis and metabolism and prostaglandin synthesis to reduce breast pain.

**Herbs**

Chinese herbs to relieve liver stagnation

**Mother wort** - stabilises emotions.

"There is no better herb to drive melancholy vapours from the heart, to strengthen it and make the mind cheerful, blithe and merry."

**Black Cohosh** - "Squaw root", calms nerves, balances hormones

**Dong Quai** - Calms nerves and mood swings, hormone balancing

**Vitex Angus-castus** Hormone balancing, progesterone like effect

- Acupuncture once a month
- Homeopathy
- Aromatherapy e.g. Lavender oil.

**PROS and CONS OF HRT (Oestradiol and Synthetic Progesterone)**

**PROS**

- Oestrogen decreases heart disease through improving cholesterol profile. i.e. Increases HDL and decreases LDL levels. Nurses study: 50% decrease in heart attacks and deaths from heart disease over ten years in a study following forty eight thousand nurses.
- Oestrogen decreases osteoclastic (bone breakdown) activity at menopause.
- Increase in breast cancer deaths small compared with deaths from osteoporosis and possibly heart disease, but studies are still being done to determine the number of heart disease deaths.

**CONS**

- Oestradiol increases the risk of breast cancer
- A 1995 study published in New England Journal of Medicine on 121,700 women concluded that women on HRT for more than five years had increased their risk by forty five percent.
- Can’t safely give Oestradiol on its own as unopposed Oestradiol causes an increased risk of uterine cancer (PEPI trial 1995). Synthetic progesterone in HRT reverses the benefit of unopposed oestrogen on blood lipid profile heart disease.
- Liver dysfunction risk
- No increase in osteoblastic activity, doesn’t build bone.
- Side effects of synthetic progesterone - depression, thrombosis, weight gain, fluid retention, liver dysfunction, head-aches, breast pain, acne and hirsutism, increased blood pressure, insomnia (i.e. symptoms which natural progesterone relieves.)
- Oestradiol side effects - heavy bleeding, breast pain, fluid retention, varicose veins, weight gain, migraine, depression, chloasma (E dominance situation)
- Oestradiol destabilises blood glucose levels.

**Summary:**

Each person needs to decide her own treatment needs according to family history and symptoms e.g. A lady with flushes and a family history of breast cancer and osteoporosis may opt for HRT in the form of phyto estrogens and natural progesterone with an annual bone densitometry to monitor her bone mineral mass. She may also take extra herbs or homoeopathics in initial phase to deal with flushes and a mineral and vitamin D supplement to assist in the prevention of osteoporosis.

The diagnosis of hormonal imbalances is not difficult to make. The complexity comes in tailoring the treatment plan to each individual’s symptoms, risk of future diseases and personal treatment preferences, at the same time ensuring the treatment carries no risks. As far as preventative medicine goes, a good diet of water, fish, soy, rice, vegetables, fruit, nuts and seeds with the optional supplementation of anti-oxidants, Calcium, Magnesium and multi minerals, multi B vitamins, and Omega 3 and 6 oils. It is also very important to exercise regularly and, above all, to maintain a relaxed, positive outlook on life.

**References:**


Dr. Robyn Cosford, Lecture Notes from course in Nutritional and Environmental Medicine, ACNM, 1997.

Dr. S. Cabot, Menopause, WHAS, 1995.

John R. Lee, MD, Natural Progesterone, BLL Publishing, California, USA, 1993.

The following quotes were taken from actual medical records dictated by physicians. They appeared in a column written by Richard Lederer, PhD for the Journal of Court Reporting. These and other language gems will be featured in Lederer’s new book, Fracture English, to be published by Pocket Books in the fall of 1997.

- By the time he was admitted, his rapid heart had stopped and he was feeling better.
- Patient has chest pain if she lies on the left side for over a year.
- The patient states there is a burning pain in his penis which goes to his feet.
- On the second day the knee was better and on the third day it had completely disappeared.
- She has had no rigor or shaking chills, but her husband states she was very hot in bed last night.
- The patient has been depressed ever since she began seeing me in 1983.
- I will be happy to go into her GI system, but her husband states she was very hot in bed last night.
- The patient refused an autopsy.
- She has had no rigor or shaking chills, but her husband states she was very hot in bed last night.
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**Footnote**

1) Luteinizing hormone (LH) is a hormone produced in the anterior pituitary gland, that stimulates the release of sex hormones by the ovaries and testes. In men it induces secretion of testosterone by the interstitial cells of the testes. In females, LH working together with follicle stimulating hormone (FSH) in the ovary, triggers the secretion of oestrogen. Oestrogen stimulates the release of LH, which stimulates ovulation.

**ENGLISH USED BY DOCTORS!**
The Supplements Industry: Introduction to “Rich Sources of Nutrients”

by Jurriaan Plesman

A recent report by the University of Adelaide and the South Australian Health Commission indicated that Australians spend $1 billion per year on alternative therapies, nearly half the population visited an alternative therapist at least once. A recent Swedish study showed that about one-third of licensed physicians had a positive attitude towards ‘alternative medical modalities’. Australians spend $100 million a year on Evening Primrose Oil alone. They consume $309 million a year in alternative medicines. The development of such an industry is not without its opponents. The president of the Australian Medical Association, Dr Keith Woollard, warned that some herbal products contain toxic substances. However, the Federal Parliamentary Secretary of Health is reported to have said that most of the products sold in Australia were tested by the Therapeutic Goods Administration and “that there is nothing on the market that can kill you”. Of course the government has an interest in ‘cleaning up’ alternative medicine as it would save tax-payers money when people pay for their own treatment.

Because of competition and financial investment in the health industry there is bound to be spurious arguments defending one side or the other. One argument runs the line that alternative health therapists are better able to sell the worth of their treatment modality. This begs the question why traditional medicine—despite their greater access to the media and taxpayers subsidies—are unable to sell theirs and remove doubts in the minds of many Australians about the validity of mainstream medicine.

The orthodox medical establishment maintained for many years that food supplementation is not only unnecessary, but a waste of money. Many doctors still poo-hoo their patients for taking vitamins and minerals. Hospitals forbid as a matter of course their patients bringing in their supplements. Yet, many cardiologists take their vitamin E in secret, knowing full well its protective effects against athero-sclerosis.

Why supplements at all?

Few nutritionists would dare to suggest that we can do away with food supplements in today’s society. The literature is replete with the way how modern technology in the food production industry has denatured our foods. Zinc, an important co-enzyme in the metabolism of foods has been depleted because of farming practices. There are approximately 200 zinc-requiring enzymes in the body. Zinc deficiency not only inactivates many of these enzymes, but also causes the body to absorb more readily toxic heavy metals, such as mercury, lead and cadmium.

Trace mineral deficiencies have been reported in all states of US, zinc deficiency in 32

EAT TWICE AS MUCH BREAD!

by CSIRO

(From a CSIRO nutrition talkback session on ABC Radio, 24 June 1996.)

Produced by the CSIRO Division of Human Nutrition

Despite the historical importance of bread and the fact that nutritionists support it, bread has had a poor image.

Bread should be one of the most important foods in our diet. It provides protein, complex carbohydrates and dietary fibre, and nutrients such as zinc, iron and the B-group vitamins.

The basic ingredients of bread are flour, water, yeast and salt. Bread is made from many types of cereal flour though, which means that a tasty, low fat, low kilojoule, high fibre food is readily available. Risots have occurred in ancient times when bread became scarce. Bread became known as the “staff of life” in the 1700s and continued to be a staple food until fairly recently. For thousands of years bread was made by hand. Mass-produced, shop or bakery bread is equally as good. Today’s bread was made by hand. Mass-produced, shop or bakery bread is equally as good. Today’s

During the period of “no-bread” diets, Australians became convinced that bread was fattening. Later, nutritionists cautioned that the amount of bread and hence fibre consumed in the diet had fallen well below recommended levels for good health and sought to reverse the damaging trend.

Breads are not fattening-it is the toppings we add to bread or toast that provide the extra unwanted kilojoules. Sportsmen and women eat bread and other cereal products for energy and our children could well do the same.

How much bread should we eat? As much as we like. At least five serves a day of breads or cereals is recommended. One serve is equal to one slice of bread, one muffin or scone, or a small bread roll.

Most breads and cereals provide some dietary fibre but wholegrain or wholemeal varieties provide the most. Those breads with lower salt and sugar content are a better choice. Good nutrition is very cheap. A loaf of bread

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The orthodox medical establishment maintained for many years that food supplementation is not only unnecessary, but a waste of money. Many doctors still poo-hoo their patients for taking vitamins and minerals. Hospitals forbid as a matter of course their patients bringing in their supplements. Yet, many cardiologists take their vitamin E in secret, knowing full well its protective effects against athero-sclerosis.

Why supplements at all?

Few nutritionists would dare to suggest that we can do away with food supplements in today’s society. The literature is replete with the way how modern technology in the food production industry has denatured our foods. Zinc, an important co-enzyme in the metabolism of foods has been depleted because of farming practices. There are approximately 200 zinc-requiring enzymes in the body. Zinc deficiency not only inactivates many of these enzymes, but also causes the body to absorb more readily toxic heavy metals, such as mercury, lead and cadmium.

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This could well explain the emergence of mad cow’s disease or Creutzfeld-Jakob disease, because of breeding techniques. Thus the radical transformation of our food sources, the depletion of essential nutrients, together with environmental pollution poses a serious threat to our health and well-being.

The message is clear: the only way to protect ourselves is to fortify our immune system through nutritional supplementation.

The alternative health industry

This message has spawned a new lucrative health industry. People out there in the market are encouraged to buy supplements and medicines of us now find that we have cupboards full of vitamin and mineral pills. The problem is that not all of us can afford it. It is true that in case of certain illnesses we need concentrated forms of supplemental nutrients. We may have to ensure our zinc intake by extra tablets or our consumption of essential fatty acids by taking Evening Primrose Oil and/or fishoil. But nutritionists are now learning that nutrients taken in isolation from other nutrients may have unexpected consequences. A case in point is a recent study by Dr. H. B. Reinitz and Reinitz (1995) Efficacy Trial (CARET) investigating a group of 18000 smokers at risk of developing lung cancer. It was found that after 4 years the treatment group receiving 30 mg beta-carotene and 25000 IU retinyl palmitate had 28% increased risk of developing lung cancer. The trial was stopped in January 1996. The health minister of Denmark responded by declaring that all high doses of beta-carotene should have a warning label to smokers. Had beta-carotene been consumed in its natural form, for instance in carrots, there could have been a different outcome.

Beta-carotene is one of the many carotenoids found in yellow and orange leaves, vegetables and fruits. Carotene is also be found in descending order in watercress, endive, plums, Edam Cheese, chickpeas, pistachio nuts, cherries, pineapple, and orange to mention a few. The main types of carotene are the alpha-, beta-, gamma-carotene and many more, most of which are not precursors of vitamin A. The yellow pigment of carotene is masked by chlorophyll in green leaves. Plants use carotenoids to protect chlorophyll from excessive sun-light and from oxidation by the oxygen produced in photosynthesis. Hence carotene is an antioxidant. Humans use beta-carotene to produce vitamin A in the liver. It may well be that other chemical components not yet fully understood are required for carotenoids to play out their role in human nutrition.

For example, if we look at carrots they contain amounts of thiamine, bioflavonoids, niacin, pantothenic acid, B6, folic acid (15mg/100g), calcium, magnesium, phosphorus, sodium, potassium, iron, copper, manganese, zinc, chromium, selenium and vanadium. Less than 1 percent consists of proteins containing amino acids in descending order: leucine, lysine, isoleucine, valine, threonine, phenylalanine, methionine, tryptophan. The vitamin, mineral and amino acid content of other foods follow a similar pattern. Thus there are several reasons why we should return to the very food sources of our vitamins and minerals, instead of pill-popping. Many people simply cannot afford to maintain their health through buying synthetic products of supplementation. The next best thing is to resort to the natural food sources.

In this issue I have included a list of nutrient sources, called “Rich Sources of Nutrients” on page 7, that will enable readers to choose nutrients from natural sources. This could well be an alternative to buying nutritional supplements. The list was accumulated from readings in the literature and may not be totally accurate or complete. It will be sent updated as we go along. You should always consult your health professional when using the list as some nutrients - even in a natural form - may be toxic in your specific medical condition.

Readers who have an electric juice-extractor are also advised to obtain books on juicing their own vegetables, which is another means of obtaining one’s supplemental vitamins and minerals. Three excellent books mentioned are: Charmine, Susan E.(1977), THE COMPLETE RAW JUICE THERAPY, Thorsons Publishers Ltd., Welllington.


Working with herbs try out the herbs in natural form obtainable from some health food stores. Medicinal herbs are cheaper than those in tablet form, although concentration of ingredients may vary. Some herbal manuals show you how to extract the ingredients from herbs by infusion or decoction. Better still grow your own herbs!

Nevertheless, when using nutrients therapeutically, professional advice is still the best.

Footnotes
1) Taylor, AW (BA), Prevalence and cost of alternative medicine in Australia, Lancet, 247(6001): 569-573, 1941
3) As reported in The Telegraph (Afternoon edition) 22 July, 1996.
5) Charsanki E, Rington WM et al. (1986), Diet and disease, Keats Publishing, Corvallis, p 147
6) Kirk Hamilton in Journal of Australian College of Nutriets and Environmental Medicine, Nov 95. P 15
7) Null, G AS(1979), THE NEW VEGETARIAN, A Delta Book Division, N.Y. page 625
14) Hall, RH (1974), p 88. Continuous feeding low levels of antibiotics stimulates growth of animals. increases feed efficiency by 16%, 16% more pig was achieved for the same amount of feed. p 91 in 1970 about 1300 tons of antibiotics worth almost $10 million were fed to animals in the United States, p 92
16) Acetylcholinesterase is an enzyme present at the endings of voluntary nerves and parasympathetic neurons. It hydrolyses the neurotransmitter acetylcholine during nerve impulse transmission.
High levels are shown in italics, wherever possible, * denotes supplemental form. Minerals depends on state of the soil.

**Acid Ash-forming diet:** (Promotes calcium loss, therefore avoid in Osteoporosis) Buckwheat, cheese, cranberries, grains (including wheat, corn, rye, barley rice) lentils, meat (including fish, poultry, shellfish and eggs), plums, prunes, refined sugar. Salivary enzyme, ptyalin, which is alkaline will neutralize acid-forming foods by thorough chewing.

**Alkaline Ash-forming foods:** fruits (except cranberry and plums), milk, molasses, certain nuts (almond, chestnut, coconuts) vegetables (except corn and lentils) (Werbach,1993, 273)

**Alpha-linolenic acid:** (Omega-3 fatty acid) converted to eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) which reduce platelet aggregation, promote vasodilation and inhibit inflammatory substances thrombomane and leukotrienes derived from linseed, rapeseed, soybean, walnut and fishoil.

**Arachidonic acid:** (C20:4 n-6) Dairy products, egg yolk, milk, liver, kidney, Atlantic salmon, turkey, some in chicken, pork, beef, lamb and peanuts.

**Arginine:** (Non-essential AA, but essential to children) avoid in herbes found in: Almonds, bacon, Beer, Brazil nuts, buckwheat, carob, chicken-breasts, chocolate, cashews, barley, coconuts, dairy products, eggs, gelatine, hazel nut, lentils, linseed, meats, millet, oats, cooked oatmeal, oysters, peanuts, peanut butter, green peas, chicken peas, pecans, popcorn, raw cereals, raisins, rice, brown) sesame, skin milk, Beef, soy- beans, sunflower, turkey, walnuts, wheatgerm, white flour, whole-wheat bread. Also found in garlic and ginger. Supplements: take on an empty stomach) (Excess could promote herpasis and kidney and liver failure). **Ornithine** derived form arginine and vice versa shares many of arginine’s properties and stimulates thymus gland to produce Lymphocytes. **Supplement** of arginine and ornithine to be taken on empty stomach with juice or water, no proteins. Avoid in pregnancy, schizophrenia more than 30 mg/day.

**Arginine & lysine:** taken together in equal amounts may inhibit adverse effects of arginine (kidney or liver failure)

Arsenic: (essential in growth, methionine metabolism) fish, grains, cereals Ascorbic acid: (see Vitamin C). Asparagine: (Stabilizes nervous system), mainly in meat. Aspartame: used as artificial sweetener (NutraSweet, Equal) aspartyl (Chemically modified forms of cellulose are used in food processing as fillers, stabilizers, emulsifiers, thickeners, foodsformulated to be low in gluten) Apples, green beans, lentils, lecithin* contains 13%. Biotin: Egg yolk, liver, unpolished rice, Brewer’s yeast, whole grains, sardines, legumes, nuts, milk, vegetables, organ meats. (Raw egg white contains the anti-biotin avidin, which prevents absorption) Boron: Sodium borate(May prevent postmenopausal osteoporosis, arthritis & builds muscles) alfalfa, cabbage, lettuce, peas, snap beans, apples, dates, prunes, raisins, wine, parsley, dates, almonds, hazelnuts, peanuts, peaches, kelp, soy, fruit, vegetables, nuts, legumes. Meat and fish are poor sources.

**Brominated vegetable oil (BVO):** Used as an emulsifier in some foods and a clouding agent in many popular drinks. Bromate is the main ingredient which can poison a child.

**Butylated hydroxyanisole:** (BHA) and butylated hydroxytoluene (BHT) used to prevent fats and oils becoming rancid added to food packaging. In the diet of pregnant mice there was a decreased (50%) activity of brain cholinesterase, responsible for brain nerve impulses. Affects animals sleep, levels of aggression, weight. See also Tertiary butylhydroquinone (TBHQ)

**Cadmium:** Toxic chemical replaces zinc receptors. Source tobacco, tobacco smoke, cigarette paper, superphosphate fertilisers, burned tyres, Ni-Cd batteries, solders

Caffeine (May cause migraines) coffee exceeding 4-5 cup a day, soft drinks, tea (herbal tea may be caffeine-free): Coffee (150 ml - 85-90 mg), Tea (150 ml - 40-60 mg), Coca (150 ml - 4 mg) Cola (180 ml - 15-23 mg), Dark chocolate (30g - 20 mg)

Calcium: Milk and milk products may be a poor source because of high phophorus content and milk allergy, use plain yoghurt, sardines, cheddar cheese, salmon with bone, tofu, green leafy vegetables, nuts, potatoes, almonds, mushrooms, shellfish, mollusces, rhubarb, watercres, kale, broccoli, Bone meal*, Dolomite*, Calcium citrate*, especially in achlorhydria (low hydrochloric acid).

**Carbohydrates:** Whole grains, sugar, syrup, honey, fruits, vegetables

Carnitine: (NEAA) (Long-chain fatty acid used in transport system for energy production, oxidation of fatty acids in mitochondria). Synthesised in liver from lysine and methionine dependent on vitamin C, thiamine (B1), pyridoxine (B6). Not found in vegetable form. Major sources are muscle and organ meats & dairy products and richest source among plant foods avocado. Supply of carnitine enhanced by lysine ingestion. Vegetarians more likely to be deficient, they should eat grains, such as cornmeal, that have been fortified with lysine.

**Cellulose and hemicellulose:** (Chemically modified forms of cellulose are used in food processing as fillers, stabilizers, emulsifiers, thickeners, foodsformulated to be low in gluten) Apples, green beans, wax beans, beetroot, bran, broccoli, Brussels sprout, cabbage, carrots, aubergine, whole-grain flour, peas, peas, peppers, radishes.

Chlorine: Table salt, seafood, meats, ripe olives, rye flour, Dulse*

Choline or Phosphatidylcholine: (Non-essential as body can produce it from serine. Important forerunner of acetycholine, a neurotransmitter) Egg yolk, organ meats, green leafy vegetables, lecithin, milk, soybeans, spinach, nuts, Brewer’s yeast, wheat germ, soybeans, fish, legumes, lecithin* contains 13%. Chromium: Brewer’s yeast* (not torula) 1-3 tsp per day, round beef, calf’s liver*, corn on the cob, corn oil, buckwheat raw, apple, sweet potato, potatoes, green pepper, butter, egg, tomato, all bran cereal, Mozzarella cheese, puffed rice, orange juice. Cheddar cheese, mollusces, clams, oysters, whole-grain cereals*, wheat germ, bran, staple foods, particularly cereals and milk, are very low (less than or equal to 10
**CoQ10:** (CoQ10, Q10; or Ubiquinone) Functions as oxygen transfer coenzyme and part of the system across which electrons flow in the mitochondria of cells in energy production. Important in heart muscle. Stimulates insulin production and may stabilise blood sugar levels. Synthesised in body, depends on vitamin E. Available in supplemental form and used in treatment for angina pectoris and other heart problems. Vegetables are a poor source, but it is to be found in rice bran, wheat germ, walnuts, sesame seeds, soybeans, broccoli, spinach, peanuts & peanut butter, salmon, sardines and mackerel (very high), eggs, butter, beef and pork. Take with vitamin E as this helps preserve CoQ10. Some cholesterol lowering drugs interfere with the synthesis of CoQ10.

**Copper:** (Essential coenzyme in Superoxide dismutase which protects against hydrogen peroxides) (may be a cause of migraines in excess) found in oysters, lobster, calf and beef liver, avocado, Brazil nuts, almonds, hazelnuts, walnuts, pecans, peanuts, cod liver oil, banana, dried beans, soy beans, soy lecithin, peas, pulses, whole wheat, prawns, shrimp) and most seafood, legumes, molasses, potatoes, organ meats, poultry, game, chicken, grain products, dark chocolate, raisins, beer, cider, coconut, mushrooms, black pepper, thyme, paprika, Bay leaves, Bone meal*. (Drinking water from copper piping should also be considered a source of copper) RDA: 1.5-3 mg p/d. Wear a copper bracelet.

**Cysteine & Glutathione:** (NEAA) (contains sulphur and inactuates free radicals) is a precursor of glutathione (a tripeptide of glutamate, cysteine & glycine), a major antioxidant. Conversion: Glutathione* available as a supplement synthesized from glutamate. Sources: Egg, meat, dairy products and some cereals. Take with vitamin C as this helps preserve it.

**Essential Amino Acids:** Histidine (Partial), Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Threonine, Tryptophan, Valine. (Non-essential: Alanine, Arginine, Asparagine, Aspartic acid, Cysteine, Cystine, Glutamic Acid, Glutamine, Glycine, Ornithine, Proline, Serine, Tyrosine).

**Essential Fatty Acids:** Omega-3 and Omega-6 Fatty acids are essential because the body is unable to produce them. Linoleic acid (C18:2 w6) is converted in the body to gamma-linolenic acid (GLA) -> dihomo-gamma-linolenic acid (DGLA) and then to prostaglandins series E1 (PGE1), which are anti-inflammatory substances. Some people lack the first enzyme - delta-6-desaturase - in these conversions and may have to take Evening Primrose Oil (EPO)* or fish oils (Max-EPA)*. The conversion can be blocked by saturated fats, cholesterol, sucrose (high insulin), trans-fatty acids (margarine), alcohol, aspirins, salicylates, NSAIDS, and deficiencies of zinc, B6 & magnesium. For natural sources see Omega-3 and Omega-6 Fatty Acids below.

**Fats:** Butter, margarine vegetable oils, fats in meat, whole milk, milk products, nuts and seeds.

**Fibre:** Insoluble (for lower bowels) whole grains, brans, wheat, wheat bran, rye, rice, corn, cellulose Soluble (for lowering cholesterol, aiding diabetes & obesity) in fruits, dried peas, beans, barley, oats, gums (guar, xanthan, locust bean) mucilages (psyllium) and pectins

**Fluoride:** (Naturally the fluoride content of water ranges between 0.05 and 14 ppm. (1 ppm in water is said to protect against dental caries) Tea, seafood, fluoridated water, Bone meal*. Fluorone:(Deposited in bone, teeth, excruted in urine, associated with dental health, small amounts prevents dental caries, excess causes fluorosis) Wide distribution, tea, coffee, fluoridation of water with sodium fluoride 1.0-2.0 ppm

**Folic acid or folate (B9):** (deficiency may be responsible for birth defects: spina bifida, anencephaly, encephalocoele) (Coenzyme for single carbon transfer, purines thymine, haemoglobin) Dark-green leafy vegetables (asparagus, spinach, chard, kale), broccoli, bean sprouts, Brussels sprouts, carrots, melon, apricot, pumpkins, avocado, dark rye (for folic acid), beef meat (liver), Brewer’s Yeast, root vegetables, whole grains, wheat bran, wheat germ, oats, salmon, milk, egg yolk. Daily supplement 500mcg for at least one month before and during first three months of pregnancy. Several drugs interfere with folate: contraceptives, alcohol, nicotine, anticonvulsants chemotherapeutic, anti-malarial and antibacterial agents.

**Food additives:** Tartrazine (E102), benzoate (E210-210), butylated hydroxytoluene (E321), monosodium glutamate (E621)

**Fructose or lactulose:** (Also known as fruit sugar, a 6-carbon monosaccharide. A constituent of the disaccharide sucrose (table sugar, glucose + fructose). Fructose 1.7 times as sweet as sucrose. Transformed to the liver where it is converted to energy via pyruvate & acetyl CoA. Fructose was used in diabetes mellitus before insulin was discovered as it elicits a lower glucose and insulin response.

**Gamma-Aminobutyric Acid (GABA):** From glutamic acid. Decreases neuron activity and together with niacinamide and inositol prevents anxiety. May help in epilepsy, hypertension, enlarged prostate, attention deficit disorder ADD.

**Glutamic Acid:** (For lowering cholesterol, aiding diabetes & obesity) in fruits, dried peas, beans, barley, oats, gums (guar, xanthan, locust bean) mucilages (psyllium) and pectins

**Goitrogens** (Released from the pituitary gland) Releasers: Orinine, Arginine, Tryptophan, Glycine, Tyrosine. Goitrogens interfere with the production of iodine needed for the production of thyroid hormone. Goitrogens decrease the amount of iodine in the thyroid gland and may cause goiter.

**Glutathione:** The body produces glutathione from the amino acids cysteine, glutamine, and glycine. Glutathione is an antioxidant that helps to neutralize free radicals and protect cells from damage. It is also involved in the metabolism of many substances, including drugs and toxins. Glutathione is also involved in the production of energy in the mitochondria of cells.

**Glutamine:** Available as a supplement synthesized from glutamate. Sources: Raw spinach and parsley. Avoid in people with liver disease.

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excess production by liver, regardless of food sources. 80% produced by liver, 20% from diet. Oxidation of cholesterol causes atherosclerosis, therefore use antioxidants, especially vitamin E.

Histamine: (released by leucocytes and derived by decarboxylation of the amino acid histidine causing dilation of blood vessels), also found in small amounts in cheese, beer, chocolate, sauerkraut, salami, sausage meat and red wines (which may cause headaches).

Histidine: (EAA in growing child, NEAA in adults) (Converted to histamine with B3 niacin and pyridoxine B6) Skim milk, peanuts, peanut butter, beef, poultry, Turkey, chicken breast, veal, pork, ham, calf’s liver, cheddar cheese, cottage cheese, boiled eggs, corn flakes, beans, pecans, brown rice.

Homocysteine: is an intermediate product in conversion of methionine to cysteine and is toxic to the body. It requires B6, and possibly folic acid, B2 & B12 for conversion to cysteine. High levels of homocysteine may contribute to atherosclerosis.

Inositol: Whole grains, whole wheat bread, citrus fruits, Brewer’s yeast, molasses, milk, nuts, vegetables, dried Lima beans, organ meat, raisins, grapefruit, lecithin*, lime, green beans (unshelled), Rockmelon (Cantaloupe), (diets high in unsprouted seeds and grains are rich in phytates, which may prevent proper absorption of many trace elements. By leavening the grains or germination prior to use phytates are eliminated and inositol is liberated into food product). Important cofactors of inositol are folic acid, B12, B6, choline, betaine, methionine.

Iodine: (Absorbed as iodides, taken up by thyroid gland under control of thyroid-stimulating hormone [TSH], synthesis of thyroxine regulates cell oxidation) (RDA 140 mcg/day) Seals-life-plant and animal-seaweed (kelp), fresh salt water fish, sea salt (many do not contain iodine), mushrooms, Irish moss (depending on iodine content of soil), seafood, prawns (shrimps), oysters, lobster, clams. Milk (evaporated, skim), egg, cheddar cheese, iodized salt, Morton Light Salt substitute*, Nutritional Yeast*, potassium iodide*.

Iron: Haem iron from organ meats and meats, lean meats, tongue, liver, eggs, fish, poultry, blackstrap molasses, cherry juice, green leafy vegetables, beans, clams, dried apricots, raisins, peaches, poor in dairy products, Deseicated liver*. [Ferrous sulphate or gluconate 300mg orally per day]. Absorption of iron can be improved with consumption of vitamin C, citrus acid; and inhibited by calcium, phytates, phenols, tea drinking and soy protein.

Isoflavones: Phytoestrogens (similar to oestriol) found in leguminous plants, especially soy beans, Tofu. See also Lignans.

Isocitric Acid (isocitrate): (EAA) Branched-chain AA - others leucine and valine (Haemoglobin formation, regulates blood sugar levels, muscle metabolism, repair tissue damage): almonds, cashews, walnuts, peanuts, chickpeas, almonds, Lima beans, yoghurt, butter, beef, poultry, Turkey, chicken breast, roast beef, prawns (cooked), liver, cooked, Lima beans, chicken liver, lamb (leg), cottage cheese, chickpeas dry raw, pork, loin, pumpkin seeds, liverwurst, pork, ham, lamb (rib), pistachios, peanuts (roasted), peanut butter, lentils (cooked), boiled egg (raw), soybeans (cooked), cashews, wheatgerm, pork, cured, bacon medium fat, almonds, sesame seeds, oatmeal, rolled oats, Vitamin C protective of lysine. Anti-viral therapy (Herpes) 500-1500mg* spread throughout day. Forerunner of carnitine.

Magnesium: Wheat germ, wheat bran, banana, avocado, peanuts, peanut butter, cashews, seafood, fish, whole grains, dark-green vegetables, spinach, molasses, legumes, almonds and Brazil nuts, cashews, pecans, hazel nuts, Lima beans, sesame seeds with hulls, millet & wheat, rolled oats, walnuts, with 2 % raw copper, oats, dets, dried apricots, beetroot greens, brown rice, dates. Cereals, soybeans, buckwheat, Bone meal*.

Metabisulphite: (Sulphites, Sulphur dioxide, sodium bisulphite may cause adverse reactions in asthmatics) Preservative used in many foods to prevent browning: used in dried fruits (but not raisins, sultanas, currents or prunes), fruit bars, dried vegetables, instant mashed potatoes, commercial prepared potatoes (chips, crisps etc.), French fried potatoes, pickled onions, pickles, pastries, crackers, mushrooms, frozen pizzas, sauerkraut, wine, cordials, beer, Champagne etc, chicken loaf, Devon, frankfurter, sausages, sausage mince, uncooked fresh prawns (shrimp), fruit yoghurt, cheese pastes, dessert toppings, flavouring essences, jams, vinegar-containing items, salad dressings, olives, tomato puree, tomato paste, frozen pizzas, sweet pastries. Also used in processing gelatin, beet sugar, corn sweeteners, food starches.

Methionine: (EAA) contains sulphur and inactivates free radicals) bean, eggs, pork, fried liver, Brazils, Parmesan Cheese, skim Milk, flourder baked, tuna canned in oil dried, Edam Cheese, lamb, trout (Raw), sesame seeds, salmon canned pink, soya flour, turkey, Fish (canned), pumpkin seeds, sirloin steak, chicken breasts, roast beef, onions, garlic, lentils, soybeans, yoghurt, cooked prawns, cooked liver, calf liver, cottage cheese, chicken liver, boiled eggs, roast veil, pistachios, cashews, walnuts, peanuts, chickpeas, almonds, Lima beans, yoghurt, buttermilk, brown rice.

Molybdenum: (Component of enzyme xanthine oxidase, which aids in breakdown of purine into uric acid) Sources depends very much on content in soil. Vegetables, fruits and grains. Organ meats (liver, kidney), legumes, whole-grain cereals, pulses, buckwheat, red cabbage, milk, beans, dark-green vegetables. (see also Pfeiffer, 1978, 119). (NEEDED with iron to make haemoglobin) Supplement: sodium molybdate. Caution against high levels of uric acid (gout). Not to exceed 10 mg.

Mono- or polyunsaturated fatty acids (MUFA): fatty acids with only one double bond like oleic acid. Olive oil and canola oils (rapeseed oil) is effective in protecting against oxidation of serum cholesterol. Corn, cottonseed, olive, safflower, sesame seeds, soybean, sunflower.

Monosodium glutamate: (MSG is a flavour enhancer in fast foods and Chinese meals, may cause headaches, flushing of the skin, tightness of the chest, heart palpitations, nausea) try vitamin B6, before ingestion, otherwise avoid.

Nickel: (Constituent of protein nickeloplasmin, associated with thyroid hormone, high in RNA) Whole grain bread and cereals, chocolate, peas, fruits, vegetables, legumes, nuts, cooked dried beans and peas. High metal diet low in nickel.

Nightshade family: Tomatoes, potatoes, tobacco, eggplant, capsicum, chilli, pepper: (Alternatives: sweet potatoes, cauliflower, pumpkin, marrow, choko, lettuce, celery, cucumber and other vegetables)

Nitrites: (Used as preservative in cured meats, may provoke migraines. Nitrates form nitrosamines in gastrointestinal tract and are known carcinogens) bacon, ham, smoked fish, bologna, hot dogs, salami, sausages.

Omega-3 and/or fish oil: salmon, mackerel, herring, sardines, sablefish, shark, lake trout, fresh tuna, whitefish and anchovies. Others halibut, blue fish, rockfish, rainbow,urgeon, turbot and sea trout, tuna,

Omega-6 Essential Fatty Acids: (Precursor of GLA—>DGLA—>
Prostaglandins Series 1 (anti-inflammatory), safflower seed oils, sunflower seed oils, wheatgerm, corn oil, Walnuts, Evening Primrose Oil* (by-passes defective enzyme and contains GLA).

OPC (Procyanidolic Oligomers, or oligomeric proanthocyanidins) Tradename Pycnogenol(s) is a group of colourless bioflavonoids with powerful antioxidative activity. It is said that OPC's have an antioxidative potency 15 times that of vitamin C and 42 times that of vitamin E. Repairs collagen and elastin damage, counteracts inflammation and allergies by inhibiting histamine. Found in woody parts, barks and leaves of many plants. Rich sources: grape seeds, pips and skin, red wine, hazelnut, pomegranate, Shiitake mushroom.

Pantothenic Acid (B5): (Active ingredient; dimethylglycine DMG) Brewer's yeast, nuts, seeds, whole brown rice, sunflower seeds, pumpkin seeds and sesame seeds, whole grains.

Phenylalanine: (EAA and forerunner of catecholamines - key neurotransmitter) A compound that stimulates the release of NE and DA. Phenylalanine is utilized by body in synthesis of neurologic chemicals - such as dopamine, epinephrine and nor-epinephrine, serotonin, melatonin, histamine, acetylcholine, serotonin, histamine, acetylcholine.

Phosphorus: (Bone formation, absorption of glucose & glycerol, substrate) A complete food except for its phenylalanine content.

Potassium: A) Lean meats, whole grains, vegetables, dried fruits, legumes, sunflower seeds, walnuts, chestnuts, flax seed (linseed), green leafy vegetables, Tasmanian Mutton Bird.


Potassium rich foods: see Merck Manual 1134 (Many fruits and juices, Beef, turkey, tomatoes, artichoke, Brussels sprout).

Presor amino-rich foods: [to be avoided in rheumatoid arthritis and schizophrenia, (Reading 1975, in Hypo Newsletter Dec 95, 5) Curry, chilli, sauces, spices, herbs, chokoes, zucchini, capsicum, mustard.

Protein: Meats, fish, poultry, soybean products, eggs, milk and milk products, cheese, whole grains. Adelle Davis: Brewer's yeast, skim milk powder, wheat germ, sore, flour and cottenseed flour. Let's s Eat Right to Keep Fit (90-91).

Quercetin: (To be avoided in gout) Fruits high in purines are anchovies and sardines, herring, meat gravies and broths, mushrooms, muscles, asparagus, sweetbread, liver, kidneys and other organ meats, legumes and poultry. Foods lowest in purine includes eggs, fruits, cheese, nuts, sugar, gelatin and vegetable other than legumes.

Saccharin: Artificial sweetener. May be carcinogenic.

Saponin containing foods: (Lowers cholesterol) Baked beans, lentils, soya beans, alfalfa, fenugreek

Silicon: (Trace mineral essential in formation of bone, cartilage, connective tissue) root vegetables, whole grains, cereals, cooked fried peaches, apricots, prunes, avocados, oranges, tomatoes, citrus fruits, carrots, beetroot, broad beans, fenugreek, green leafy vegetables, whole grains, brewer's yeast, nuts, seeds and sesame seeds, whole grains, brewer's yeast, nuts, seeds and sesame seeds, wheat germ, pumpkin, sunflower, sesame seeds, whole grains.


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Vanadium: (Potentiat of insulin) Richest: black pepper, dill seeds, Middle range: whole grains, buckwheat, parsley, fish, meats (liver) and dairy products, bean-corn-olive-oil, gelatine, mushrooms, soybean. Toxicity may lead to manic-depressive illness.

Vasoactive amines: (responsible for changing size of blood vessels which may lead to migraines, tyramines: aged cheese, chicken liver, pickled herring, dry fermented sausages, sour cream, red wine (especially Chianti); Phenylethylamine: cheese, chocolate. See also, nitrates, lactose, caffeine, copper, aspartame

Vitamin A: Made in the body from —> beta-carotene. Liver, eggs, egg yolk, yellow fruits and vegetables, spinach, dark-green fruits and vegetables, rhubarb, whole milk products, fish-liver oil*, in fish oils such as cod, salmon and halibut.

Vitamin A (retino): Fish, liver, eggs, yellow fruits, vegetables, dark green fruits and vegetables, whole milk, milk products, fish-liver oil or Cod liver oil*.

Vitamin B: Brewer’s Yeast, whole grains, blackstrap molasses, organ meats, egg yolk, legumes, nuts.

Vitamin B-complex: Yeasts, Brewer’s Yeast, dried Lima beans, raisins, cantaloupe (rockmelon), liver, beef, cheese, pork, kidney

Vitamin B1 (Thiamine): Most vegetables, Brewer’s Yeast, dried yeast, whole grains, blackstrap molasses, bran, brown rice, organ meats, meats (pork or liver), fish poultry, egg yolk, legumes, milk, peanuts, rice polish, sunflower seeds, potatoes and nuts, wheat germ, whole wheat. Enemies: Cooking, caffeine, alcohol, food-processing methods, air, water, oestrogen, sulphur drugs.

Vitamin B2 (Riboflavin): Brewer’s yeast, whole grains, almonds, blackstrap molasses, organ meats, egg yolk, legumes, nuts. see also bioflavonoids, wheat germ, rice polish, sunflower seeds.

Vitamin B3 (niacin): (Niacin also produced from tryptophan) Lean meats, poultry, fish, Torula yeast, Brewer’s Yeast, peanuts with skin, milk and milk products, avocado, baked beans, broccoli, clams, liver, mushrooms, oysters, potatoes, raspberries, rice bran, wheat bran, strawberries, turkey, watermelon, rice bran, desiccated liver*, vegemite.

Vitamin B6: (pyridoxine) Meats, whole grains, organ meats. Brewer’s yeast, wheat germ, prunes, raisins, potatoes, soya beans, bananas, avocados, blackstrap molasses, milk, eggs, beef, rockmelon, cabbage, sunflower seeds, rice (whole), walnuts, peanuts, canned tomatoes, Baker’s yeast, wheat germ, legumes, green leafy vegetables, liver (beef), turkey, chicken, pork, salmon, Malt extract, Flour (refined desiccated liver*, don’t take more than 100 mg of B6. Very low in cottage cheese.

Vitamin B12: (Cobalamin): organ meats, liver (lamb), fish, clams, pork, pig liver, pig kidney, fatty fish, beef, lamb, white fish, oysters, sardines, salmon, Tuna, eggs, chicken, liver, eggs, milk and milk products.

Vitamin C: (Ascorbic acid, ascorbate): Citrus fruits, rose hips, Acerola cherries, alfalfa seeds, alfalfa sprouts, cantaloupe (Rock Melon) strawberries, broccoli, cabbage, tomatoes, green peppers, capsicum, parsley, Brussels sprout, kale, mustard greens, paw paw, spinach, cauliflower, orange, mangoes, grapefruit, pineapple, radishes, onions, green peas, spinach, sweet peppers. Herbs: alfalfa, burdock root, cayenne, chickweed, eyebright, fennel seed, fenugreek, hops, horsetail, kelp, peppermint, mullein, nettle, oat straw, paprika, parsley, pine needle, plantain, raspberry leaf, red clover, rose hips, skullcap violet, leaved,yarrow, yellow dock. Esterified vitamin C (Ester-C) is an effective form of vitamin C supplementation.

Vitamin D: (Absorption of calcium and phosphorus by intestinal tract, heart beat, osteoporosis) Salmon, sardines, herrings, liver, vitamin D-fortified milk and milk products, egg yolks, organ meats, Cod Liver Oils* Bone-meal*, also produced in skin from sunlight. Dandelion greens, alfalfa, horsetail, nettle, parsley. Do not take vitamin D without calcium. Toxicity: >25,000 IUs over extended period. Supplementation rarely needed in sunny Australia.

Vitamin E: (Tocopherol): Almonds, Brazil nuts, cold-pressed oils, cornmeal, dulse, eggs, legumes, nuts, wheat germ oil, brown rice, oatmeal, organ meats, sunflower seeds (& oil), safflower oil, sesame oil, peanut oil, corn oil, hazelnuts, olive oil, organ meats, nuts, soybean oil, sweet potatoes, leafy vegetables, watercress, parsley,
**Glycemic Index re-defined**

A team of scientists from the Human Nutrition Unit, Department of Biochemistry at the Sydney University, SHA Holt, Janette C Brand Miller and Perter Petocz, have been re-defining the glycemic index - a method of ranking foods on the basis of their blood glucose response - which could have important implications in the treatment of diabetes and by implication the ‘hypoglycemic syndrome’. The latter term is used by this association to indicate people that have characteristic unstable blood sugar levels as a result of a glucose intolerance, which is often a sign of latent diabetes.

Glycemic Index (GI) helps individuals with diabetes to choose low-GI foods. For example potatoes have a high GI and legumes have a low GI. However, the GI approach has not been accepted as a useful tool in diabetes management by the majority of scientists. The GI approach may be useful in the comparison of single foods but the addition of fat, protein and other foods renders it useless in meal planning. The National Institute of Health (NIH) recommended against the use of the GI.

1 Brand Miller et als. found that the commonly held belief that foods containing added sugars produce higher glycaemic and insulin responses (on the GI scale where glucose = 100), than starchy foods was not tenable. Some ‘sugary’ foods had a GI lower than 70. Foods rich in simple sugars usually have lower GI values than most starchy foods, although there were exceptions such as canned peaches, yoghurt and soft drinks. Adding sucre to low GI foods will increase the final GI, but adding sucre to high GI foods have been found to result in a lower GI. There was a good correlation between GI and insulin index (r = 0.69, P < 0.001). This may not be the case in diabetes because hyperglycemia (high blood sugar levels) could be more relevant to the secondary complications of NIDDM.

In the third study, using 11-13 healthy subjects, insulin responses were compared among thirty-eight commonly eaten foods. The insulin score (IS) was calculated for each food with use of white bread as the reference food (score = 100%). Although differences were found among foods, overall, glucose and insulin scores were highly correlated (r = 0.70 P < .001, n = 38). It would be interesting to compare these results with a group of subjects with a known glucose intolerance.

Western staples, bread and potato, elicited the highest insulin scores. Highly refined bakery products and snack foods induced more insulin secretion than pasta, oatmeal porridge and All-Bran cereal. Protein- and fat-rich foods (eggs, beef, fish, lentils, cheese, cake and doughnuts) produced as much insulin as carbohydrate-rich foods. Similar insulin scores were observed for white and brown pasta, white and brown rice or whole meal bread.

For details the reader should refer to the original articles and particularly to the list of footnotes at the end of this paper.

**Footnotes**

**THE HYPOGLYCEMIC HEALTH ASSOCIATION**

P.O.Box 8, SYLVANIA SOUTHGATE NSW 2224

**MEMBERSHIP APPLICATION**

**PLEASE PRINT**

Surname:

First Name:

Address:

Town/City: Postcode:

Phone: Age: 

Membership $15.00 pa Please tick 

RENEWAL 

Pensioners $10 pa Occupation ______________

Life Membership $150

NEW MEMBER

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

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**1998 MEETING DATES ON SATURDAYS**

7th MARCH - 6th JUNE - 5th SEPTEMBER - 5th DECEMBER
Hypoglycemic Health Association of Australia. This Questionnaire has been provided by the Hypoglycemic HHA in order to help health professionals and sufferers identify, diagnose and treat this condition. Hypoglycemia affects 4% of the population. It often runs in families and can lead to Type 2 Diabetes (Maturity Onset). Ask your doctor to order the correct Pathology Test for this condition GTT â€“ 4 hrs with all Â½ hourly readings, not the 2 hour GTT used to diagnose Diabetes. To interpret your result check our website www.hypoglycemia.asn.au and click articles and click Testing for Hypoglycemia and how your doctor can help. As with global Semantic Scholar extracted view of "The Hypoglycemic Health Association" by George Samra et al. @inproceedings{Samra2006TheHH, title={The Hypoglycemic Health Association}, author={George Samra and Lynnette Grady and Robyn Cosford}, year={2006} }. George Samra, Lynnette Grady, Robyn Cosford. View PDF. Save to Library. Create Alert. Cite. Share This Paper.