Our Next Meeting will be at 2PM on Saturday, the 5th September, 1992 at the YWCA, 2 Wentworth Ave, Sydney and our guest speaker will be

DR GEORGE SAMRA, who will be speaking on the subject

“FIT FOR LIFE: A LIFE-TIME OF REMEDIES”
ATTENTION TRAVELLERS FROM THE COUNTRY

Members wishing to arrive early at our next public meeting can look forward to receive a hot cup of tea or coffee with their own self-provided lunches.

Steve Duff telephone advisory service

Our life member Steve Duff is willing to talk to any person by phone on any problems relating to hypoglycemia, allergies and diet. This voluntary advice is based on his personal experiences with hypoglycemia and allergies and any problems of a more complex nature will be referred to nutritional practitioners. If you would like to have a talk with Steve, please ring him at his home on 529-8040.

Books for sale at the meeting

Jur Plesman: GETTING OFF THE HOOK
Sue Litchfield: SUE'S COOKBOOK

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

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

The Association is looking for voluntary research students interested in preparing articles for this Newsletter on a regular basis. This provides an excellent opportunity for students to learn clinical nutrition and to write articles. Students could start summarising books or scientific articles and have these published in this Newsletter. The editor will help students to edit their material and will suggest topics for research. As their knowledge and interest in clinical nutrition develops they may undertake more ambitious project such as researching a particular topic in clinical nutrition using different sources in scientific literature.

Anyone interested should contact Jur Plesman c/- the Hypoglycemic Association.

NUTRITION AGAINST DRUGS AND ALCOHOL


Alcoholism and drug addiction is a major and costly disease in Western countries. 75% of all criminal cases coming before the courts are either alcohol or drug related and most of these offenders are recidivists who apparently do not respond to punishment or “treatment”. People with drug and/or alcohol related problems occupy 15-30% of hospital beds. The majority of addicts are young people between the ages of 16 and 30 years.

An attempt will be made to help a person addicted to either drugs or alcohol to take some practical steps to recover from his addiction. It is believed that by adopting a special diet and taking the appropriate nutrients his cravings for his drug of addiction will spontaneously cease.

A Menu of Nutrients against Drugs and Alcohol will be enclosed as a centre page of this Newsletter. Copies of these can be retained by interested readers.

Drug addiction appears primarily to be a bio-chemical disorder and the first line of treatment should concentrate on this underlying physical illness. Thus it is suggested that in the initial stages of treatment no amount of “talk therapy” is going to help a drug addict. However, social support in the form of either face to face counselling, attending group therapy or AA plays an important role in the ultimate success in overcoming the problem of drug addiction, but only so after the underlying metabolic disorder has been attended to. In the first stage of treatment the addict is strongly advised to seek the assistance of a medical practitioner or other qualified health practitioner familiar with clinical nutrition, who can apply the general principles outlined here having regard to the person’s special medical and other health conditions.

One of the problems with supplemental nutrients is that synthetic vitamins and minerals are expensive; people who need them most can least afford them! I will try to recommend nutrients that are the least expensive, although some will have to be obtained in synthetic forms. Recommended nutrients will be shown in italics (and in bold type for easy reference) and I will try to recommend the form that is the least costly, although some synthetic supplements may be more effective and more expensive.

Warnings will be inserted to alert the reader to some possible side effects. An understanding of the underlying metabolic dis-
order affecting most drug addicts and alcoholics is essential, if they are to fully participate in their treatment with the health practitioner.

**The Hypoglycemic Syndrome**

Most clinical nutritionists agree that the majority of drug addicts and alcoholics suffer from unstable blood sugar levels - fluctuating from extreme highs to lows - and thus affecting the energy supply to the brain which depends on a steady availability of glucose. These alternating levels of blood sugar are believed to be due to the pancreas' inability to properly metabolise sugar, usually caused by excessive insulin production by the pancreas in response to high levels of glucose in the blood. When the blood sugar level descends from a high to a low - triggering a panic reaction in the brain - it provokes the body to produce excessive adrenaline. This is the fight/flight hormone which not only functions to prepare the body to fight or run, but also D, helpful in utilising calcium in bone tissue. These alternating levels of blood sugar are considered the most important meal of the day.

**The nutritional treatment of this “hypoglycemic” condition consists of:**

1. **Avoidance of sugar**, coffee, strong tea, nicotine if possible, refined carbohydrates, such as white bread, white rice, cakes and sugary drinks etc.

2. **High protein snacks every three hours** or sooner, to provide a slow release of glucose, and to prevent the hypoglycemic dip. A high protein breakfast must be considered the most important meal of the day.

3. **Supplementation** of diet with Anti-stress vitamin B-Complex tablets, including chromium, zinc + Vitamin C.

*Brewer’s Yeast* is a cheap form of B-Complex supplementation which contains most of the minerals including zinc, chromium and selenium (Take six tablets per meal initially or about 2000 mgs per meal).

**Warning:** Some people react to Brewer’s Yeast and when you have thrush (Candida Albicans) one should switch to synthetic tablets. Brewer’s yeast is high in phosphorus and when taken in large amounts over a long period of time it is advisable to add extra calcium (eg., milk). **Dolomite** is a cheap source of calcium and magnesium - both calming agents - and many alcoholics have found this to be beneficial.

It is known that drug addicts are particularly low in **zinc**, a mineral co-enzyme involved in many metabolic processes. Over 80 enzymes require zinc. It helps in the formation of insulin, in wound healing, eliminates loss of taste, avoids prostate problems and may reduce juvenile acne among many others. Zinc is essential in glucose metabolism especially at the mitochondria (brain’s powerhouse). Because alcohol requires zinc in its metabolism many alcoholics are found to be zinc deficient. **Aborigines** and other dark skinned people are suspected of having a zinc absorption problem. The Western style diet high in refined carbohydrates places a great demand on zinc resources in the body. This is needed to extract the energy from glucose. Thus they may resort to alcohol to obtain a cheap form of energy, placing a further demand on zinc and damaging their liver. Aborigines may benefit by increasing their zinc intake or perhaps return to their traditional diet.

The hypoglycemic diet with B-complex vitamins, zinc and vitamin C (at least 3 grams divided per day) forms the basis in the treatment of drug addiction in the first stage. Many addicts have found that on this basic diet they changed for the better and many spontaneously abstained from their drug of addiction.

**Common problems encountered**

The hypoglycemic diet may cause sugar withdrawal symptoms which last no longer than a week. These unpleasant feelings can be alleviated, by taking a tablespoon of glycerine mixed in milk (or water with a dash of lemon juice) or diluted natural fruit juice three times a day. When glycerine is metabolised into “energy”, it by-passes glucose, and is therefore not recognized by the pancreas as sugar. **Avocado** contains an odd sugar called mannoheptulose, which may actually depress insulin production. Therefore not a fruit to be eaten by diabetics! Vitamin B3 known as **Niacin** (Nicotinamide or Niacinamide) is known to elevate the blood sugar level and may stop the sugar craving, apart from all the other benefits it delivers to the body. **L-glutamine** is also known to prevent excessive sugar craving.

**Vitamin A and zinc** deficiencies are especially common among alcoholics. When you suffer from night blindness and loss of taste and/or smell, supplementation is advisable. Old grandma’s cod liver oil (no more than one teaspoon per day) contains not only vitamin A but also D, helpful in utilising calcium in bone construction. **Sunflower seeds** contain high levels of zinc.

**Withdrawal from drugs and alcohol** can be facilitated by supplementation with high doses of **vitamin C, B3 (Niacin) & B6 (Pyridoxine)**. The liver uses these nutrients to transform toxins into a water soluble form so that they can be excreted via the urinary system. Drug addicts can tolerate high doses of vitamin C - from 3 grams to 10 grams and more - without experiencing diarrhoea. The onset of diarrhoea tells your body that you have enough of vitamin C and you should then aim at 1 gram (or 1000 mgs) below the tolerance level.

The vitamin C is best taken in the form of Calcium Ascorbate powder from a health food store. **Ester C** does not cause diarrhoea. **Warning:** Megadoses of vitamin C over a long period of time may wash out B12 and folic acid so make sure that you consume them daily. B12 is contained in most animal foods and folic acid is abundant in a variety of green vegetables and some meats. A varied diet is required when taking high doses of vitamin C.

Supplementation with **B6** should not exceed 50 mg per day, unless under supervision by a qualified practitioner. Equal amounts of **B1** (thiamine) and **B2** (riboflavin) should be taken to prevent imbalances. Some doctors give vitamin C injections in high doses to help drug addicts to withdraw from drugs or alcohol. These remedies help persons to withdraw without much discomfort and also improve sleeping.

**Withdrawal from Marijuana** is perhaps not as easy, as the active component, tetrahydrocannabinol (THC), is fat-soluble and is lodged in the fatty tissues of the body including the lipid layers of brain cells. Hence withdrawing from marijuana takes longer and the mental after-effects seem to linger on. This is believed to be the major cause of the “amativational syndrome” of pot-smokers. Withdrawal can be facilitated by supplementation of fat soluble vitamins A & E (in addition to vitamin C), sauna baths and exercises (such as jogging, body building etc.) which promote sweating. These exercises also promote the stabilisation of blood sugar levels and the release of the body’s own endorphins and enkaphalins - morphinelike compounds giving many joggers a euphoric high.

**Dancing** to rhythm music has similar effects. Being fat-soluble THC is mainly excreted via the liver and gall-bladder as components of bile and then of feces. To speed up this excretion take high doses of **vitamin C** - which promotes bile formation from cholesterol. A **high fibre** diet will stimulate peristalsis and helps carry the waste-product through the bowels.

Marijuana causes hypoglycemia, hence the cravings for food following smoking. It also lowers testosterone levels - related to the sex drive and aggression - and hence withdrawal from marijuana is often associated with an increase in aggression and irritability, which could well have been a problem in the first place.

The gradual withdrawal from methadone could be accelerated with the help of this program. Again as a first step the person should be on the hypoglycemic diet as outlined above, supplemented with the recommended vitamins and minerals and should be liberally supplied with the neurotransmitter nutrients to be discussed below. He should then be ready for high doses of Vitamin C, B3...
and B6. However, as he is under treatment of a psychiatrist and counsellor the patient should discuss this fully with them as they have the ultimate responsibility for his recovery.

Many drug addicts and alcoholics will testify that it is easier to get off drugs than staying off them. Emotional upsets can easily drive the person back to drugs. Being drug-free does not necessarily mean being happier. Before we look at social factors, let us return to physiological factors contributing to the vulnerability of the person. He is often overcome with feelings of depression, sleeplessness, nervousness, fatigue, lethargy and lack of motivation and interest. Sure, it would help a person to have a dream to fulfill, a goal to pursue or strive towards a well-planned future. But all too often he feels too tired and is easily exhausted. The reason could well be that the recovering drug addict lacks the spark or more correctly the neurotransmitters to keep him going. A look at some of these neurotransmitters may lead us to some other remedies to improve his well-being.

Neurotransmitters are minute chemical compounds produced by the neuron cells of the body that function to carry messages between the neurons of the brain. Nerve cells communicate with other nerve cells at a small gap called a synapse. A nerve impulse will cause synaptic vesicles (packets) to empty their supply of a neurotransmitter into the synapse (gap between nerve cells). This neurotransmitter then will combine with a receptor site of the adjacent nerve cell, which is then electrically excited to propagate the impulse to the next nerve cell. An enzyme usually deactivates (degrades) the neurotransmitter. The kind of messages that is passed between the nerve cells depends on the kind of neurotransmitter used. Some neurotransmitters are pro-active and others are inhibitory. Many neurotransmitters have been isolated. It is estimated that perhaps over 200 neurotransmitters may be at work within the body, but only few have been studied in detail.

Many psychotrophic (mind-altering) drugs - medicinal or illegal - attempt to manipulate either inhibitory enzymes or neurotransmitter receptor sites. Although the exact mechanism of benzodiazepine drugs (tranquilisers) is not fully understood some pharmacologists postulate that the dramatic calming effect of the anti-anxiety drugs results from them occupying specialised receptor sites. This enhances the effects of a natural inhibitory body chemical called GABA (gamma aminobutyric acid) thereby blocking the transmission of electrical impulses.

Ironically, the desired effect of the drug is dramatically reversed upon withdrawal from the drug, thus intensifying the mental condition for which it was prescribed initially. Usually, the dose is then increased and subsequent relapses lead to addiction.

The experience of self-help groups world-wide such as AA and NA would indicate that the substitution of man-made synthetic chemicals for those naturally occurring body chemicals is always fraught with danger. This is how they got hooked in the first place. It would be much better to stimulate the production of body chemicals by natural means.

It is interesting that vitamin B3 (niacin or niacinamide) as well as inositol (300mg daily) are said to help to occupy the same benzodiazepine receptor sites, which may explain why some people feel drowsy and relaxed when they take these natural substances. They are nature’s sedatives.

Serotonin is an example of an inhibitory neurotransmitter. It induces sleep and relaxation. The body produces serotonin from an essential amino acid in food, called tryptophan, found in relatively large quantities in bananas and milk. The body also produces vitamin B3 (niacin) from tryptophan and this will take priority over the production of serotonin, if the body is deficient in vitamin B3. An other reason why B3 helps to induce sleep. Vitamin B6 (pyridoxine) is required to convert tryptophan into serotonin. Thus this action is blocked when there is a deficiency of vitamin B6, as when the vitamin is being used up in the liver for detoxification purposes (of drugs!). Not long ago tryptophan was freely available in health food stores. But nowadays it is available only on prescription. This came about when in 1988-9 a company produced a faulty batch of tryptophan tablets causing a mysterious disease, called eosinophilia-myalgia syndrome. The Australian Government immediately banned tryptophan and when the cause was traced to the company, tryptophan was made available again, but on doctor’s prescription only! This important amino acid also helps to reduce pain, is a non-drug antidepressant, reduces anxiety and tension, and is especially important in relieving and controlling alcoholism.

Even though milk, bananas, white meat, fish and turkey are rich sources of tryptophan they also contain other amino acids which compete with tryptophan for uptake into the brain. Hence the best way for increasing tryptophan absorption is in combination with sugars and carbohydrates. Dried dates which is also rich in tryptophan is an excellent medium.

Tryptophan should be taken between meals or just before bedtime minimizing competition with other amino acids. It should be taken with water (no protein) and preferably with vitamin B6 (pyridoxine) and 1 gram of vitamin C. This is how they got hooked in the first place. It would be much better to stimulate the production of body chemicals by natural means.

The next neurotransmitters of great importance to recovering drug addicts are called the catecholamines.

Catecholamines are a class of pro-active neurotransmitters of similar chemical structures which include tyrosine, dopamine and norepinephrine. These are the neurotransmitters probably in short supply in depression, when we feel tired and exhausted. Most of these are produced from amino acids, some of which are essential - that is, they need to be obtained from food - and others are non-essential and can be produced from other amino acids. Phenylalanine is an essential amino acid, which is the body produces the other neurotransmitters. The pathway for the synthesis of catecholamine neurotransmitters is as follows:

Phenylalanine -> Tyrosine -> Dopamine -> Norepinephrine (Noradrenaline) -> Epinephrine (Adrenaline).

Foods rich in phenylalanine are: lamb, cooked liver, beef, pumpkin seeds, peanuts, trout, canned cod fish, sesame seeds, cooked prawns, chicken (breasts), cottage cheese, soya flour, almonds, lima beans, cooked soya beans, skim milk, brazils, dry-raw chickpeas and wholewheat flour. As can be seen these are mostly high protein food sources. A person having lived on “junk-foods” for a considerable time may well be lacking in these catecholamines affecting their “personality” perceived as lacking motivation, drive, concentration and “willpower”.

A brief summary shows some of the important functions of these chemical substances:

Tyrosine derived from phenylalanine is the forerunner of tyramine, a hormone released by the thyroid gland and which controls the rate of metabolism. A low tyroxine level is associated with low temperatures, overweight and lethargy. The conversion to thyroxine also requires vitamin A, vitamin B1 (thiamine), manganese and iodine. Tyroxine is required to convert carotene into vitamin A (retinol) in the liver.

About 1 in 20,000 newborn babies have a genetically defective enzyme (phenylalanine 4-monoxygenase) converting phenylalanine to tyrosine, resulting in a disease called phenylketonuria, which could result in severe mental retardation if left untreated. (One percent of mental patients are affected)

Dopa and Dopamine affect sex and other drives, locomotion, tissue growth and repair, the immune system and moods. As we age - perhaps due to lipofuscin accumulating in the brain - the dopaminergic system declines. Parkinsonism (tremors) is caused by damage to dopamine-dependent brain areas. L-dopa which can enter the brain cell where it is converted to dopamine requires vitamin B6 (pyridoxine) for this conversion. Dopamine carries across the blood brain barrier. People on L-Dopa for Parkinsonism should

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restrict their vitamin B6 intake, as this convers
tion to dopamine would accelerate outside the
test in the hospital. Norepinephrine is the target area. Schizo
terapy is said to suffer from an error in
dopamine metabolism.

Norepinephrine (NE) has a molecular
structure similar to the drugs amphetamines,
phenylpropanolamine and chlorphentermine used in diet pills. ‘Speed freaks’ try to treat their
depression by taking amphetamines which
stimulate the synaptic vesicles to empty
their store of norepinephrine into the neural
synapses. Unfortunately, amphetamines do
not replenish these vesicles and hence the
addict becomes even more depressed. Am
phetamine addicts usually respond very well
to administration of phenylalanine or tyrosine
as these amino acids automatically replenish
these synaptic vesicles with NE. Norepineph
rine is not only an antidepressant neurotrans-
mitter, but plays a vital role in learning,
memory, drive and general level of energy. A
deficiency leads to narcolepsy (sleeping sick-
ness) and hypotension. People addicted to
caffeine probably are looking for a NE substi-
tute. It is suspected that nicotine addicts are in
the same class. On the other hand excessive
norepinephrine may lead to insomnia, mania,
hypertension, and migraine.

Drug addicts can benefit from supplemen-
tation of phenylalanine or tyrosine obtain-
able from health food stores (100-500 mg per
day for two weeks). An enzyme called
Monoamine Oxidase (MAO) degrades the
monoamine neurotransmitters dopamine, norepinephrine and serotonin and the produc-
tion of this enzyme increases with age (and
during periods of ill-health), causing depres-
sion. Hence one drug used in depression is
Monoamine Oxidase Inhibitor or MAO In-
hibitor which increases the supply of
neurotransmitters. However, this drug has
serious side effects. Procaine mKH3 (Scher-
ging PL) is a mild reversal of MAO and its use
in combination with phenylalanine may be an
effective anti-depressant without these side
effects.

Warning: Phenylalanine can increase
blood pressure, aggravate angina conditions
in people and should not be used in the disease
phenylketonuria PKU (use tyrosine instead).
For this reason phenylalanine supplementation
should be used with caution and under the
supervision of a physician or health profes-
sional in cases of high blood pressure to make
sure that hypertension is not worsened. Also it
 can aggravate a pre-existing pigmented
melanoma, a particular kind of cancer. A
person on MAO inhibitors should not take
phenylalanine or tyrosine. In case of high
blood pressure start using small doses (50mg)
and gradually increase the amounts while
monitoring the blood pressure.

Acetylcholine is another important chemi-
cal used in the brain as a neurotransmitter
especially for memory and control of sensory
signals and muscular output signals
(makes muscles contract). It is made in the
brain from the precursor nutrient choline in
combination and it is also said to be an (pantothenic
acid). Considered one of the B-complex vita-
mins choline functions with inositol as a basic
constituent of lecithin. Hence, lecithin is its
richest source (buy lecithin granules as a cheap
source - three spoonfuls a day initially). Leci
thin may also be helpful in withdrawing
from heroin and methadone. Other sources
are egg yolk, liver, brewer’s yeast and
wheat germ. It is also associated with the utili-
zation of cholesterol, fat distribution, liver
health, myelin sheath of the nerves and helps
to prevent gallstones. In the form of lecithin
granules the nutrient may raise the blood trig-
lyceride level. However, inositol and choline
can be obtained in the more expensive pure
synthetic form of choline biturate andinosi-
tol in health food stores.

Lack of acetylcholine in the brain has been
known to contribute to forgetfulness, lack of
ability to concentrate, easily distracted by
stimuli in the environment (living from mo-
moment to moment), easily aroused and irritabil-
ity, REM sleep deficit, easily woken up at
night, lack of sex drive, incoordination of
muscle activities. It is an important motiva-
tional chemical, affecting primitive drives and
sustained energy requirement in forward plan-
ning. On the other hand excess acetylcholine
has been associated with hypermotility,
hypervigilance, excess salivation and asthma.
It is interesting that inositol has been used
by nature as a sleep regulator. It apparently acts
- as does niacinamide - by combining with the
benzodiazepine receptor sites of the brain. Thus,
these two natural substances could possibly replace the use of
the benzodiazepine drugs (the diazepam or
anxiety drugs) for relaxation and sleep-
ning. A tablespoon of lecithin at night also
helps to induce sleep.

Another useful substance used in the treat-
ment of drug addiction is the nutrient called
glutamine which is obtainable in the form of
L-glutamine in health food stores. Unlike
glutamic acid, glutamine easily passes the
blood-brain barrier where it is converted to
glutamic acid or glutamate. This is then used
as a brain fuel. When glutamate combines
with ammonia it forms urea as in the
brain - it becomes glutamine, passes the blood-
brain barrier, is then carried by the blood to the
liver where the ammonia is converted to urea
and excreted as urine. More importantly, gluta-
mate (inside the cell) in the presence of vita-
mn B6 (pyridoxine) is the precursor to GABA
- or Gamma-aminobutyric acid - generally
considered to be an inhibitory amino acid and
a calming agent. As an inhibitory chemical it
reduces the production of prolactin from the
pituitary gland. Prolactin levels increase as we
age, which may cause the enlargement of the
prostate gland and breasts, contribute to male
impotence and also be an immuno-
suppressant. Glutamine also stops sugar crav-
ing. Experiments with alcoholic rats have
shown that glutamine stops alcohol craving
and has been successfully used in alcohol.
withdrawal. Two (2) grams (1/2 tsp) daily in
divided doses may stopalcohol craving. Stud-
ies have shown that glutamine may benefit
retarded children and schizophrenics.

Energy levels are also related to heavy
metal intoxication as high levels of lead,
mercury and cadmium interfere with the en-
zymes breaking down glucose into energy
within the mitochondrion of cells that carries
out aerobic respiration and where the Krebs
cycle is located. This can result in symptoms
that are practically indistinguishable from those
of hypoglycemia - fatigue, insomnia and de-
pression. Often this can be prevented in our
polluted environment by increasing zinc in-
take. Sunflower seeds, oysters and crusta-
ceans are said to have a high zinc component.
Foodstuffs containing mercaptan groups or
sulphur containing compounds - as in onions,
garlic and eggs - have the ability to claw out
heavy metals from the body over a period of
time. The name ‘mercaptan’ comes from their
ability to react with ‘(seize)’ mercury. The
amino acid methionine plus vitamin B6 is
perhaps the most effective way of detoxifying
the body of heavy metals. Anti-oxidant sup-
plementation with vitamins A, E, C and sele-
nium is also helpful. Toxic metals in the body
are known to increase free radicals, which
have been associated with cancer and against
which anti-oxidants provide protection.

Herbalism offers a plethora of herbal reme-
dies to combat alcoholism and drug addic-
tion. Chief among these is Evening-primrose
oil (1/2-1 gram three times daily), which is
rich in GLA or Gamma linolenic acid, which
many alcoholics are unable to manufacture.
GLA is a precursor of friendly prostaglandins
series 1 - anti-inflammatory substances con-
trolling the B-lymphocytes. These are involved
with allergies. Normally the body produces
these from wheatgerm, seeds, golden vegeta-
bile oils as in linseed, safflower, soy and corn
oil and various fish oils. Some people are
unable to produce GLA as they lack an en-
zyme, delta-6-desaturase, converting linoleic
acid to GLA. Max EPA is an other source of
friendly prostaglandins.

Other herbal remedies are milk thistle (tar-
ging liver cell regeneration), skullcap,
motherwort, oats. It is best to consult a herb-
alist.

Psychological/spiritual follow-up
We started off by saying that the first line
of attack in drug addiction and alcoholism is
biological. But having gained control over one’s physical condition contributing to the
disease, the second line of attack is psycholo-
getic. It is then that the person will benefit
from counselling, re-learning social skills,
assertiveness training, communication val-
ues clarification or re-evaluation of his/her
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moral or spiritual aspect of life. A recovered addict cannot afford to be emotionally upset, especially when such upsets derive from a low self image. I have covered many psychological aspects of drug addiction - attitudes etc. - in my book Getting Off The Hook. However, many alternative psychological approaches are equally helpful. Whatever the person’s choice, the recovering addict will now be able to learn and enjoy the subsequent treatment leading to a satisfying life style.

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NUTRITION IN SPORT

Here is a quotation from Allan Langer’s FOOTBALL TRAINING AND NUTRI-TION GUIDE.

“Carbohydrates are the preferred energy source, and should provide at least 55-65% of the energy intake for a competitive athlete. However, the type of carbohydrate is critical. Whilst simple or refined carbs from sugar or glucose may give you that initial burst of energy, they do have a downside, literally.

High intakes of sugar or glucose can cause a sudden rush of insulin, which leads to rapid onset of fatigue. If you’ve ever experienced the high after eating a candy bar, followed by the slowdown 10 or 20 minutes later, you’ll know what I mean.

Although promoted heavily, high-sugar confectionery products are not appropriate snack foods for athletes.

The best way to sustain energy, complex carbohydrates are preferred. Because they “drip-feed” your muscles, with energy they increase your stamina factor, and lengthen the time to fatigue.

Glycogen, a special form of complex carbohydrate is stored in the muscles and liver, which provides a ready supply of energy when needed.

However research has shown that Glycogen depletion is increased by up to 75% in temperatures over 40 C and that intense exercise, such as a game of football requires 120 times the use rate of glycogen at casual walk-ing pace!”

DEVICE GIVES SWEET READING

So reads the headline in the St George Leader of the 21 May, 1992.

The sight of a man or woman staggering down the street has often been labelled “he’s drunk”. But in fact such person may have hypoglycemia or low blood sugar level. “When the blood glucose level in the body falls, a patient may show signs of weakness, pallor, slurred speech and or aggressive behaviour which may lead to collapse and if not treated appropriately, even death” said Dennis Rogan, deputy superintendent at Rockdale.

In the past paramedics have been treating all patients in a coma for unknown causes with glucose. Now they will be using glucose me-ters to accurately assess glucose readings. It is hoped that the 770 ambulances in the State will soon be equipped with these meters.

Dr George Sarna was asked how this policy will affect members with hypoglycemia who are told to stay away from sugar.

Here is his reply:

“Glucose injections will not hurt our members in any long term way but would possibly save a lot of suffering and costs with diabetics in a coma - we have no objections to all patients in coma of unknown cause.”

Comfrey

Comfrey (Symphytum officinale) also known as Blackwort, Wallwart, Healing Herb, Gun Plant, Slippery Root, Knitback, Knit Bone, Boneset, Consound and Bruise wort, has a long history as a medicinal herb, especially in the treatment of rheumatism and swollen joints. Indeed, “Knit Bone”, “Boneset” and “Bruise wort” are appropriate names for comfrey’s ability to heal bones and bruises when used as poultices. These are prepared from finely ground comfrey roots, mixed quickly with very hot water and a few drops of cooking oil and spread on a piece of linen. This is then applied on the affected area and band-aged. Warm poultices are said to be helpful in varicos veins, muscular rheumatism, gout stones, ulcers, neck pain, insect bites, bronchi-tis and slipped disc (Maria Treben, 1986,19).

The British physician Charles J Macalister of Lancaster, England isolated the active in-redient of the comfrey plant - allantoin. He published his findings in the British Medical Journal in 1936. Allantoin was used to treat resistant wounds. It was used internally in the form of tea for stomach ulcers, persistent coughs, dysentery and excessive menstrual flow.

Comfrey is rich in vitamins A, C, E, and B and notably B12 the anti-anemia vitamin usu-ally found only in meat products! Because its roots dig deep down into the soil the plant is rich in trace minerals.

Furthermore, comfrey contains methionine, an amino acid which most other vegetable proteins lack. Methionine helps to detoxify excess histamine in ‘histidelic schizophrenics’ (Chatow, 1985, 99). It is also a forerunner of hormones, including adrenal cortical hor-mones (cortisone) useful for hypoglycemia. Methionine is also used in the treatment of urinary incontinence, senile dementia and pancreatitis (Martindale, 1972,76).

Yet, this wonderful herb is banned in Aus-tralia and perhaps for some good reasons.

Continued consumption of comfrey may be a potential health hazard to health due to the presence of Pyrrolizidine alkaloids (PA) which have been shown to be poisonous to the liver (hepatotoxic) in both humans and animals. These toxins can enter the food chain by contamination of food crops by comfrey. However, the most common poisoning occur by deliberate ingestion of the plant for medic-inal purposes over a period of time.

Significant outbreak of PA poisoning have occurred in countries such as West Indies, Afghanistan and India as a result of contamina-tion of cereal crops with seeds from PA-containing plants. In Afghanistan where 7000 people were affected and where many deaths occurred it was found that a daily dose of 2 to 3mg of PA was associated with acute symp-toms and death. A 49 year old woman in the United States died from an estimated 0.5 to 1.5mg per day over a period of several months.

In Australia the poisoning was associated with the consumption of Russian comfrey (Symphytum x uplandicum Nyman) Five leaves contain approximately 5mg of PA and consumed as tea 8 to 20mg per cup. There is no evidence that skin creams represent a route of absorption of PA. (Abbot PJ 1988 & Radker PM, McDermott WV, 1989). The wonder is that this epidemic poisoning was not noticed by naturopaths before!

It should be noted that all these reports refer to “continued consumption” of comfrey over a long period of time. It does not apply to comfrey used as poultices. Instead of banning the herb, it seems that a simple solution would have been to legislate that a warning be printed on packages containing the comfrey sold over the counter in health food shops. Alternately, comfrey should have been made available under S2 of the Poisons Act to minimize the unlikely possibility that someone may abuse the herb.
**References re Comfrey**

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**Once more, diet in rheumatoid arthritis**

by Kjeldsen Kragh J., et al.

The community generally, and people with rheumatoid arthritis, have deeply rooted beliefs, perhaps hopes, that some of the answers to controlling rheumatoid arthritis are to be found in dietary adjustments. Such beliefs are influenced by ideas from folklore that go back to primitive times. There is an element of symbolic magic in some of the ideas. In general, the substitution of animal fats with fish oils has a well-established but only slight effect in reducing rheumatoid inflammation, and the elimination of certain foods will very occasionally be followed by improvement in the rheumatoid arthritis. Several studies have confirmed that fasting is followed by a temporary lessening in the severity of the disease. The study described focuses on the idea that elimination of certain foods may be beneficial. By way of background, it should be made clear that there have been isolated reports that certain foods, for example milk products and wheat products, can aggravate rheumatoid arthritis, with immune complexes detected in the joints and that the elimination of such foods has been beneficial. However, when large numbers of individuals with rheumatoid arthritis are put on a fast and then challenged with various food categories only some 4 to 5 % of such appear to have definite and specific food-induced aggravation of the disease.

A Norwegian group recently published in the Lancet a paper reporting on the effect of fasting and a vegetarian diet on the outcome of rheumatoid arthritis. The authors noted that fasting is effective in reducing rheumatoid inflammation but that previously most patients have relapsed on reintroduction of food. The study involved a total of 53 patients with rheumatoid arthritis. Half (27) stayed for four weeks at a Health Farm. After an initial 7-10 day subtotal fast (herbal teas, garlic, vegetable broth, decoction of potatoes and parsley and juice extracts from carrots, totalling 800 to 1260 kj daily), the patients were put on an individually adjusted gluten-free vegan diet for 3.5 months and then changed to a lactovegetarian diet for the remainder of the study. A control (comparison) group of 26 patients stayed for 4 weeks at a convalescent home, but ate an ordinary diet throughout the period and for the subsequent total of 12 months. In order to achieve similarities between the diet group and the control group of patients, they were randomly assigned to their treatments. Bias in treatment because of one treatment or another was thus minimised. After 4 weeks of health farm regimen the diet group showed a significant improvement in the number of tender and swollen joints, in their pain and in a number of other measures including blood tests. In the control group only the pain score improved significantly. Thus a very clear advantage occurred in favour of the subtotal fast in the initial 4-week period. This improvement gained in the diet group was reasonably well sustained over the one-year period while they continued the vegetarian diet.

While this is an interesting study, we should be careful of the interpretation. Firstly, the report adds to the weight of evidence that dietary restrictions can lead to short-term improvement in rheumatoid arthritis. It is impossible to conduct a wholly scientific (double blind) study of diet because, of course, people must know that they are on a special diet. This introduces the possibility of the wish bias including the willingness to please. Furthermore, the control group may have a negative bias in their reporting of symptoms. However, some objectivity was achieved by following laboratory test results, and the laboratory test results did in fact favour the diet group. There is the possibility that patient entering the study were selected on the basis of strong beliefs that diet was important in their arthritis and having clues that certain foods were deleterious would tend to limit the appropriateness of generalising the results to all people with rheumatoid arthritis. In fact, in 30 % of patients in the diet group (10 of 27) some sort of food intolerance was suspected. The diet group lost more weight than the control group and reduced nutrition does tend to suppress immune responses. That could be one possible mechanism of the apparent benefit.

One last warning against enthusiastic acceptance of the results of this study and the application of such diets to the rheumatoid arthritis population as a whole: there will undoubtedly be individuals who will elect to follow the guidelines presented in the paper, but many of us would like to see further confirmatory studies.


**Common garden weeds; the answer to skin cancers**

by Cassandra Plesman

Australia is blessed with far more sunshine than most other countries, and as a result its white-skinned population is also blessed with a greater proportion of sun-induced skin cancers. Not all strange looking blemishes of the skin are cancers and the first step is to have your nasty skin spot investigated by a doctor. An alternative, the use of common garden weeds such as petty spurge (Euphorbia peplus) and chickweed (Stellaria media) may be effective in the complete removal of basal cell carcinoma - the common form of skin cancer.

Treatment for early stages of skin cell change is the application for five days, of the milky sap found in the stem of Euphorbia peplus. For long standing skin cancers the preliminary treatment of Stellaria media facilitates the removal of abnormal cells, by the Euphorbia peplus. The chickweed is picked fresh for five days, slightly bruised and applied to the skin and held in place by a bandage or band aid. One day cessation of all treatment is followed by the direct application of petty spurge twice daily for five days. This is then followed by an application of tea tree oil for three days. If lesions persist see a dermatologist.

**Plant description and general use;**

Euphorbia peplus petty spurge, is a common weed with tiny flowers appearing green/white and is found in shady parts of the garden; containing a caustic milky sap in the stem. The application of the fresh sap and the bruised leaves also removes papillomata and warts. Stellaria media-chickweed, is a fleshy, fertile green, delicate looking weed with small white like flowers. A European plant, but now found world wide, is a very common weed in gardens; and traditionally used for skin diseases, swellings, eczema, burns and as an anti-scorbutic as the leaves are rich in Vitamin C.

External use:- apply bruised fresh leaves direct and ointment made from fresh leaves or tea tree oil

Internal use:- fresh plant or infusion of fresh leaves or homeopathic 6x preparation.

Further reading

Recipe Corner

BROWN RICE CAKE (1)

by Joy Sharp

2 1/4 cups brown rice flour.
1 1/4 cup soy flour.
5 ozs. margarine.
5 mls sugarine.
3 eggs.
1 tsp. vanilla.
1 2/3 cups milk. (Nut milk - 1/4 cup ground nuts blended with 1 tsp. baking powder, 1 tsp of milk I use pecan nuts chopped pecan nuts. For this recipe)

Cream together the margarine sugarine a pinch of salt and vanilla.

Add the egg mixing until uniform. Add the sifted flours and baking powder alternately with the milk. Pour into 8” pans and add chopped pecan nuts to the top mixing in a little.

Bake at 350 degrees for 40-50 mins.

YOGHURT WHIP

by Catherine King

1 Pkt Lo Joule Jelly
2 cups of water
250 grams (1 carton) plain yoghurt.

Place jelly crystals in bowl. Pour in cup of the water boiled & dissolve crystals. Pour in 1 cup cold water. Let stand till room temperature. Add yoghurt to jelly mixture & whip till mixed. Pour into jelly mould & refrigerate to set. Serve with cream or carbohydrate modiﬁed icecream or fruit & crushed nuts.

BROWN RICE COOKIES (2)
by Joy Sharp

200 mls Becel margarine
10 mls Sesame Seeds
2 teaspoons Vanilla
5 mls sugarine or 2 tablespoons of Rice Syrup

2 eggs
2 cups of brown rice flour
3/4 cup arrowroot
50 mgs. Chopped nuts (cashews, pecan, almonds, peanuts, sunflower seeds etc.) the nuts to your own taste and dietary needs.
10 mgs. ground nuts. (Use hazelnuts)

Cream together the margarine, sesame seeds, vanilla, sugarine or rice syrup and the ground nuts. (The ground nuts seem to help to cream the margarine.) Add the eggs then flour and mix well and last the chopped nuts. Drop a teaspoon of the mixture on to a tray and ﬂatten with a fork. Bake for 20-25 mins. at 350-375 degrees or until they get a little golden.
Menu of Nutrients against Drugs and Alcohol

This Menu outlines various nutrients that will help drug addicts and alcoholics recover from their addiction. The rationale of this program is explained in an article NUTRITION AGAINST DRUGS AND ALCOHOL by Jur Plesman published in the NEWSLETTER of Hypoglycemic Association in the September, 1992 issue and obtainable from the Association at, P O Box 8, Sylvania Southgate 2224 Phone: (02) 588-5290.

Most drug and alcohol addicts have extremely fluctuating blood sugar levels affecting the energy supply to the brain. A sudden crash in the glucose supply to the brain - often as a result of the drugs - causes an upsurge in adrenaline in the blood, triggering off erratic behaviour, frequently described as "out of character". The "hypoglycemic diet" aims at stabilising the blood sugar level and this is the basis of the physical treatment of the addict. In the first stage of the treatment "talk therapy" will be of little use, however counselling, attending AA or group therapy will increase the probability of success. Ideally, the addict should seek out a counsellor, doctor or health practitioner familiar with clinical nutrition to help him get over the inevitable bumps.

The hypoglycemic diet - very similar to the diabetic diet - consists of:

1) **Avoidance of sugar**, coffee, strong tea, nicotine if possible, refined carbohydrates, such as white bread, white rice, cakes and sugary drinks etc.

2) **High protein snacks every three hours** or sooner, to provide a slow release of glucose, and to prevent the hypoglycemic dip. A high protein breakfast must be considered the most important meal of the day.

3) **Supplementation** of diet with Anti-stress vitamin B-Complex tablets, including chromium, zinc + Vitamin C.

Most addicts will feel better and many will spontaneously give up their drug of addiction with this diet. Change diet slowly. Eat plenty of fruit and vegetable. Buy in bulk and do your own cooking. Grow your own vegetables. Make sure you enjoy what you eat and eat slowly. However, the following supplements will help addicts overcome specific problems they may encounter.

**Glycerine** 1 tablespoon mixed in milk, fruit or water with a dash of lemon juice, three times a day will overcome sugar cravings as you withdraw from sugar. Also for depression and cravings.

**Brewer's Yeast** 2-3 grams per meal (one flat teaspoon = 3 grams) is a good source of all B vitamins and minerals. As it is high in phosphorous it is good to balance it with calcium (milk).

**Dolomite** cheap source of both calcium and magnesium, both are calming agents.

**Chelated zinc** Most drug addict are deficient in zinc. Involved with many enzymes especially glucose metabolism. Aborigines and other dark skinned people are suspected of having a zinc absorption problem aggravated by Western style high carbohydrate diet. When food cannot supply energy they may resort to a cheap form of energy (alcohol). Zinc is required to turn glucose into energy. Many alcoholicis recovered with zinc.

**Withdrawing from alcohol and heroin** use high doses of vitamin C, B3 and B6 to help the liver to detoxify. Lessens withdrawal pains and provides sleep. Also try lecithin.

**Vitamin C** use calcium ascorbate powder, similar acidity as blood (pH), 1 teaspoon = 3 grams (3000mgs). When you experience diarrhoea go 1 gram below that level. Addicts can tolerate high levels until detoxified. Vitamin C taken over a long period of time may wash out B12 (obtained from most animal food) and folic acid from deep-green leafy vegetables and a host of other foods. A varied diet will safeguard against this. Vitamin C in the form of Ester C does not cause diarrhoea.

**Vitamin B6 (Pyridoxine)** should be taken with equal amounts with B1 & B2. 50 mg in detoxification. Helps overcome depression. Don't exceed 50 mg per day, unless under supervision of health professional.

**Vitamin B3** (500mg daily) there are several forms. Niacin or Nicotinic Acid (old name) is the pure form. It can give flushes, not harmful. May elevates blood sugar levels (not harmful to diabetics) thus may stop sugar cravings. Nicotinamide or Niacinamide used in detoxification. Together with inositol is used as a natural sedative and sleeping pill. The flushing of Niacin can be diminished when taken immediately with food. Increase gradually to build up tolerance.

**Withdrawing from marijuana** THC fat soluble, stays in fatty tissues including membrane of brain cell, (lethargy, lack of interest and motivation) will take longer to excrete. In addition to C, B3 & B6 use high doses of fat soluble vitamins A & E. Exercises such as jogging, dancing, body building, sweating will stabilise sugar levels and produce body's own endorphins, morphine-like substances. Excretion via the faeces can be accelerated by taking high doses of vitamin C and consuming high fibre foods.

**Withdrawing from methadone** discuss with your counsellor, first hypoglycemic diet, vitamins and minerals, gradually withdraw and work on you neurotransmitters. (See next) Also try lecithin.
Neurotransmitters chemicals that help communication between nerve cells. Lack of these can cause all sorts of “psychological” problems, depression, tiredness, sleeplessness etc. Precursors of neurotransmitter obtained from high protein diet.

Lecithin Source of both Choline and Inositol. Buy in the form of granules which is cheap and take three spoonfuls a day. The Inositol in lecithin is a sleep inducer. Choline precursor of neurotransmitter see below. It may be helpful in withdrawing from heroin and methadone.

Choline From lecithin or Choline Bitartrate sold in health food store. Forerunner of a neurotransmitter called acetylcholine in presence of vitamin B5. Take for treatment of forgetfulness, lack of concentration, easily distracted, living from moment to moment, easily aroused and irritable, sleep without dreams, easily woken up, lack of sex drive, incoordinated muscle movements, not motivated, always exhausted, cannot get up in the morning, depressed, difficulty in long term planning. Problems getting started. Good source lecithin granules.

Inositol (500mg daily) Occupies benzodiazepine receptor sites in brain, can replace valium and minor tranquilizers. Natural sleep inducer. Niacinamide may function the same way and used as antidepressant. Discuss with counsellor as sometimes it has the opposite effect, then use Niacin.

Tryptophan High in milk, bananas, white meat, fish, turkey, peanuts and dried dates. Forerunner of serotonin (neurotransmitter) for relaxation and sleep. Needs vitamin B6 & Vitamin C for conversion. Formerly freely available but now only on prescription from doctor. Used in withdrawing from drugs and alcohol, pain relief. Try dried dates or non-fat dried milk powder, with niacinamide (B3), Pyridoxine (B6), Brewer’s Yeast for relaxation and sleep.

Catecholamines a series of pre-active neurotransmitters, similar in structure derived from phenylalanine.

Glutamine passes the brain barrier where it is converted to glutamic acid (glutamate) and used as a brain fuel. It leaches out ammonia - a very toxic material - and transport it to liver for urinary excretion as urea. More importantly, it is the forerunner of GABA (Gamma-aminobutyric acid) a calming agent. 2 grams (1/2 tsp) daily in divided doses may stop sugar craving and it may stop craving for alcohol!! Essential for alcoholics.

Phenylalanine forerunner of many neurotransmitters - sold in health food store. Rich in lamb, cooked liver, beef, pumpkin seeds, peanuts, trout, canned cod fish, sesame seeds, cooked pawns, chicken (breasts), cottage cheese, soya flour, almonds, lima beans, cooked soya beans, skim milk, brazil, dry raw chickpeas and wholewheat flour. Phenylalanine is a major natural antidepressant. Used to treat hypothyroidism, sluggish metabolism (low temperature), overweight, mood swings, affects sex drive, locomotion, tissue growth and repair, irritability, lack of sustainable energy, inability to concentrate, learning, memory. People addicted to caffeine may be looking for norepinephrine (neurotransmitter) from phenylalanine. Amphetamines addicts respond well to phenylalanine. Phenylalanine combined with procaine in KH3 (Schering P/L) is an effective natural antidepressant.

D-phenylalanine is used in pain relief; L-phenylalanine is used to treat depression. DL form has both. Warning: Phenylalanine can worsen high blood pressure, not to be taken by people suffering from Phenylketonuria (take tyrosine instead), or angina, pre-existent pigmented melanoma. Don't take with MAO Inhibitors. Discuss with your doctor or health professional naturopath.

Tyrosine An amino acid the body can produce from phenylalanine. Tyrosine together with iodine is the precursor to thyroxine, the hormone produced by the thyroid gland. This gland is concerned with the rate of metabolism. A deficiency leads to sluggishness, low temperature, overweight, low blood sugar levels and lethargy, although there can be many other causes. Thyroxine is required to convert cartotene into vitamin A in the liver. Tyrosine as an intermediary amino acid has the same antidepressant effects as phenylalanine. Warnings: as with phenylalanine except phenylketonuria.

Evening Primrose Oil contains Gamma lenolenic acid (GLA) required in the production of friendly prostaglandins, anti-inflammatory chemical substances to control allergies. Most alcoholics are unable to produce GLA from golden vegetable oils such as linseed, safflower, soy, and various fish oils. (Dose: 1/2-1 gram three times daily may reduce alcohol craving). Max EPA is also a useful supplement improving the general health and mental well-being.

Heavy Metal Intoxication often related to one's work environment such as lead, cadmium, mercury causes symptoms similar to the hypoglycemic syndrome and can be tested by means of hair-analysis. Medical tests by a doctor can confirm this condition. Onions, garlic and eggs - have the ability to claw out heavy metals from the body over a period of time. The amino acid methionine plus vitamin B6 is perhaps the most effective way of detoxifying the body of heavy metals. Anti-oxidant supplementation with vitamins A, E, C and selenium is also helpful.