The Hypoglycemic Association

NEWSLETTER

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The NEWSLETTER of the Hypoglycemic Association is distributed to members of the Association and to Health Professionals with an interest in nutritional medicine and clinical ecology.

As can be seen there are a few changes in the super-structure of the Association. Mrs Joy Sharp, who as treasurer has given her free time to look after the finances for many years, has asked to be released from these duties because of illness of her husband. She certainly deserves a good rest and we are glad that she is staying on the Committee. Our Committee meetings would not be the same without her delicious home-baked cookies! We were very fortunate to receive an offer by Kerrie Cook, of Cartwright, to take over Joy's job as treasurer. We cannot survive without a treasurer, needless to say. We are grateful that Mildred and Ted Grant are staying on. They do a tremendous job at the door and in sending out the Newsletters

We again ask members to pay their fees as soon as possible. New names have been added to the professional list, which means that more and more doctors and naturopaths are helping us in providing complementary health services to the public. This is a voluntary organisation depending on members' fees to achieve our goals. These are 1) to bridge the gap between the public and health professionals, 2) to encourage doctors to combine traditional medicine with alternative medical practices, 3) to provide information to readers and professionals about the latest scientific developments in natural health and clinical practice, 4) to foster personal responsibility in preventative medicine and optimal health by natural means.

Our Next Public Meeting will be at 2 PM
on Saturday, the 4th June, 1994
at the YWCA,
2 Wentworth Ave, Sydney and
our guest speaker is

Dr Joachim Fluhrer

who will be speaking
on the subject of

"Update on Chelation Therapy"

Dr Joachim Fluhrer is a registered medical practitioner and is the principal and owner of his practice at Manly, which is called **"The Institute for Nutritional and Environmental Medicine"**. Dr Fluhrer's main interest lie in the area of chronic illness. The practice is shared with other professionals in General, Nutritional and Environmental Medicine, Allergies, Acupuncture, Osteopathy, Homeopathy, Support for cancer patients, Chelation Therapy, Immune Therapies and, General and Biological Dentistry.

The Institute caters for chronic degenerative diseases, chronic fatigue syndrome, chronic toxicity, mercury-amalgam toxicity, immune disorders, attention deficit disorders and, of course CHELATION THERAPY which will be Dr Fluhrer's topic at the next meeting.

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

Previous Copies of the Hypoglycemic Newsletter

Back issues of the Hypoglycemic Newsletters are available at the NSW State Library, Macquarie Street, Sydney. They are filed under NQ616.466006/1 in the General Reference Library

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.

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

Organise local meetings

If any member would like to organise meetings in their local area or meet other members, we can help by advertising your name and phone number in this Newsletter.

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 32-38 Montgomery, Kogarah.

DENTAL CAUSES OF SYSTEMIC DISEASE

By Dr Robert Gammal BDS

Brief history of dentistry

Dentistry has generally been thought of historically by the patients and the dental profession as a career that started off as barbers, who then started pulling out teeth. Later on, they started travelling around the countryside as tooth puller. Eventually, the medical profession formed themselves into doctors, science developed, but there was a big gap between the medical profession and the tooth pullers. This chasm still exists today. The aim of the Australasian Society of Oral Medicine and Toxicology is to bring together the doctors, the dentists and the natural therapists and to start bringing information out which has up until now been withheld by the powers that be.

Dentistry has been thought of in three ways: 1) pain control, 2) mechanics (making everything more stable) and recently, 3) aesthetics, which is the more profitable part of dentistry. There is absolutely no concept of systemic effect in dentistry. All the materials we use in dentistry are all tested for mechanical wear and tear and there is no testing for systemic effects. ADA (Statement December 1989) claims that mercury toxicity have been extensively investigated but still nothing is being done to eradicate it's use. Consequently, we use such thing as gold crowns. These are generally high in gold content and other bits of metals that go into it. Gradually, this was replaced with non-precious alloys which would be cheaper and to which we can bond porcelain. They look exactly the same, they fit well and do all the right things mechanically. These contain germanium, rubidium, nickel, indium, zinc, and about 1-2% gold. None of these materials have been tested for their systemic effects.

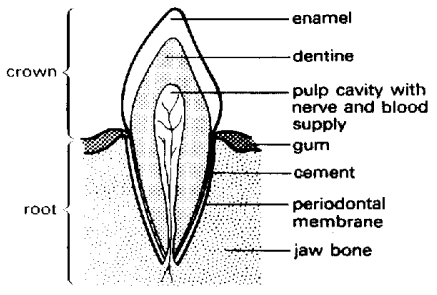
I will try to touch upon a few subjects of dentistry that are being seen routinely in our surgery.

1) Amalgam

2) Dead teeth, osteitis & root therapy

3) Jaw joint or Temporo-Mandibular Joint Syndrome.

Amalgam



Section through an incisor tooth

Amalgam is a metal made up of copper, zinc, silver, tin, some of it has a little indium. It is made into a powder or a tablet, which is then mixed in the surgery with mercury. Amalgam means an alloy made up with about 50% mercury. These are put into the teeth and we are told this mercury stays in the filling. The Australian Dental Association (ADA) has admitted that some mercury comes out but in very small quantities and certainly in small enough quantities to not affect your health. Because of the controversial nature of the debate, you have to look at the figures and actually understand what you are talking about, as it is easy to believe what you are reading, especially if it is presented scientifically.

Following the Current Affairs program of last year, the ADA published a response in writing:

"It is certainly true that in substantial dosages mercury has the capacity to cause a variety of toxic effects, but there is no credible evidence that in the nanogramme quantities (10^{-9} gram) implicated in the suggested leakage mechanisms, any form of harm, including reproductive harm, will occur."[1]

This sounds really impressive and most people believe it. The trouble is

that it does not come in nanogram quantities - it comes out in microgram quantities. And a microgram is a thousand times greater than an nanogram. Using basic mathematics, the average filling weighs two grams, half of that is one gram of mercury. There is a corrosion rate of 50% over a period of ten years; and this is an accepted figure by just about every textbook of dentistry. Thus of the million micrograms of mercury, you are going to lose 500,000 micrograms over ten years. That is 500,000 micrograms divided by 365 days over ten years equals 137 micrograms of mercury per day. That is 137,000 times more than what the ADA wants us to believe! (Patrick Stortebecker, Professor of Neural Surgery, Karolinska Institute).

This is only from one filling. Most people with amalgams have between ten and fifteen fillings, big ones and smaller ones.

The retention rate of mercury, that is mercury from the filling retained by the body, has been estimated - on the basis of studies that I have seen - to be 1 microgram of mercury per surface of a filling per day. If you have ten, three surface filling you would retain 30 micrograms per day. Some people will retain more some people will retain less depending on many factors such as diet.

Some factors that will increase the release of mercury are:

1) Temperature: increased temperature will increase release of mercury. Every time you have a cup of coffee, you increase the temperature and the mercury level coming off the filling increases and stays elevated for about 90 minutes before it starts dropping off. If you consider the number of hot meals one has during a 24 hour period, it would appear that we have a permanently elevated freeing of mercury.

2) Friction from chewing and grinding, brushing teeth. Here again chewing gum has been found to elevate the release of mercury for 90 minutes.

3) Increasing electrical current: we have a battery operating in the mouth. We have an electrolyte in the form of saliva and an amalgam filling which is made up of at least six metals. Different parts of that filling are exposed, some parts are corroding, others are nicely shining surfaces on which you are grinding. You get an interaction between those metals alone to form a capacitance battery within the filling. If you add a gold crown on top of the filling you add another ten metals in there. When the filling is big, you put gold or steel pins into the tooth. So we are creating a massive battery in the mouth.

As soon as you increase the electrical current in a cell it is not only the electrons that flow, but also ions of the metal are flowing. Therefore as we increase the electrical current we increase the mercury output. People who have partial dentures in the form of chrome-cobalt dentures, which contain mainly chromium, cobalt, beryllium and nickel. The nickel will come out when combined with amalgam in the mouth. When you put gold in the mouth with amalgam, the mercury comes out. These are some of the mechanisms by which we routinely increase the release of mercury in dentistry and that is called good dentistry.

The mercury comes off the filling mainly as elemental mercury. The shining part of amalgam when placed under a microscope shows up as little balls of mercury. Because of the temperature of the mouth, it comes off as mercury vapour. Some mercury comes off as ionic mercury or elemental mercury. When you have gold crowns on top of amalgam filling in the teeth, the mercury does not only come out through the biting surface, but it goes through the tooth as well. For your information, there is a still an item number in dentistry which is claimable for an amalgam core underneath a gold crown.

There have been studies[2] which show that in root biopsies there are 200-300 mcgs mercury per gram tissue weight of tooth. If you put a gold crown on top of that tooth, that level goes up to 1200-1400 mcgs per gram tissue. You have an electric pump pushing it out. From there it goes into the bone around the tooth, where it gets sumped into the blood. Eventually it will go around the body and finish up in the liver for detoxification.

As pointed out earlier most of the mercury is released in the form of vapour. Of this 80 percent is absorbed into the lungs, from where it is distributed by the arterial blood supply to the whole of the body. Principal areas of storage are in the liver, the kidney, the brain and heart tissues and especially any fatty tissues. The mercury binds to the sulphydryl (SH) groups on proteins and haemoglobin contains these SH groups which is where the oxygen normally binds on. If we replace a mercury ion at these functional groups there will not be enough oxygen in the blood. This is reflected in the blood tests where we see often an elevation of haemoglobins in an attempt by the body to produce more of them to carry the same amount of oxygen.

It is known that mercury carried in the blood will pass the blood brain barrier and goes into the brain. It also crosses the placenta, which is admitted in the ADA's literature. These facts are also known from the Iraqi disasters and from the Minnamatta Bay disaster, when excess mercury was pumped into a Japanese bay, which found its way into fish. The local people after eating fish from the bay were poisoned and many died of mercury toxins.

Similar studies done by Canadian researchers[3] showed that when pregnant ewes were given 12 amalgam fillings, mercury would show up in the amniotic fluid and in the umbilical cord within two days. This study was criticised on the ground that mercury could have been picked up anywhere in the environment. However, the mercury used in this experiment was radioisotope-tagged and therefore could not have come from anywhere except the fillings that were put into the sheep's teeth.

The highest level of mercury was found in the foetus and not in the mother and the highest level in the foetus was in the pituitary gland. There is no safe level of mercury in the pituitary gland of the foetus and we are taught in dentistry that the best time to treat pregnant women is in the second trimester. The reason is that if a woman is treated in the first trimester and she is scared of dentistry she might miscarry. The breast milk and the foetus concentrates mercury eight times more than the mother's tissue. Much has already been written on the distribution and effects of mercury on the body.

One of the major effects of the mercury from amalgam are on the immune system and when we start knocking down that system with mercury we get all sorts of allergies and all sorts of other diseases and we simply start getting sick. As mercury binds on to proteins, those proteins will be recognised by the immune system as non-self, with the result that the white blood cells start to attack these non-self proteins, because they are tagged with mercury ion. Thus, there may be an increase in some autoimmune diseases such as lupus (systemic lupus erythematosus, a disease with a multitude of symptoms and characterised by a large number of antibodies in the blood), Lichen Planus (an autoimmune disease of the skin or mouth characterised by shiny smooth-topped ulcerated papules) and Crohn's disease (bowel disease). Some studies have also implicated endometriosis (a condition where tissues normally lining the uterus - the "endometrium" - are found elsewhere in the abdomen). As soon as you put amalgam in the mouth, changes in the white blood cell count is noted and when the amalgams are taken out the white blood cell count will fall within the parameters of a non-amalgam group. The mercury bound to the proteins will have an effect on every enzymatic and metabolic process in the body. The diagnosis becomes horrendous and after taking the amalgam out we see vague symptoms, such as eye brows growing back and rashes disappearing and that is beyond what is more traditionally associated with mercury poisoning.

We are also told by the pro-amalgam group that the rate of allergic response to mercury from amalgam is less than 1% of the population, but no one has shown me from where that figure has been obtained. Even if this were so than all the patients seen in dentistry that are being treated for Lichen Planus with all sorts of drugs from cortisone up, their doctors never consider taking out the amalgam from their patients' mouths. It is fascinating to see how quickly the symptoms of Lichen Planus disappear after removal of the amalgam.

Most of the people - over 95-99% - show an immune reaction to mercury as shown in biocompatibility tests by The Australian Biologics in Sydney and it may take 20-30 years before we get clinical symptoms.

Some of mercury vapour will stick to the

mucous membrane of the nose and mouth. The pink acrylic resins used in some dentures are coloured with mercuric compounds which goes straight to the brain via the bone structure. Principal sites are the hypothalamus and the pituitary.

One exponent of the pro-amalgam group in his recent thesis stated that the brain is the critical target organ for mercury vapour and methyl-mercury under long-term low level exposure. This is a description of micro-mercurialism which means that we get the poisoning all the time through the lungs and which is then distributed throughout the body. Symptoms from mercury poisoning from amalgam are subclinical neurological symptoms ranging from emotional disturbances to suicidal tendencies, depression, short term memory loss. These are early stage symptoms of micro-mercurialism. It is often asserted from the other side, that unless you have the shakes you have no mercury poisoning.

To get the shakes from mercury poisoning one has to either localise it to a particular part of the brain that governs motor control or one has to have a massive amount in the body. Thus having the shakes belongs to the later stages of mercury poisoning.

Root therapy

In general medicine it would not be permitted to implant amalgam or mercury into a bone, and this is exactly what is considered good dentistry. This practice is nothing short of injecting mercury into the hypothalamus and pituitary gland. This is called a **RETROGRADE ROOT FILLING.** My approach would be to take the tooth out.

In 1910-20 Weston Price, the Einstein of dentistry of this century and sometime president of the American Dental Association conducted a series of studies on root therapy and the conclusions he and his group came to caused him to be dismissed from the American Dentist Association. He looked at 1600 patients studying their family history back for three generations looking for patterns of diseases, illnesses and death rates. He was able to divide his subjects into three major groups;

1) a group highly susceptible to diseases (including rheumatic type lesions, skin lesions, cancer, heart disease, arthritis).
2) a group who were not highly susceptible to disease, a group thus having a 'high immune' function and
3) a group with 'acquired' susceptibility which lies in between the two groups.

Those with 'acquired' susceptibility were people who started off being healthy, but who because of continuous exposures to stressors in their life gradually became sicker and started showing similar diseases as the first group. Price was able to relate those three groups to the types of lesions seen around dead teeth. He could also relate it to a whole range of blood parameters and to different forms of diseases, so that he could predict that a particular group with certain factors would likely get a group of diseases. In dentistry we are taught that if an X-ray shows a big hole in a tooth, then that area needs to be cleaned up. Weston Price found that the people who had no susceptibility to the rheumatic group of diseases would get rarefying bone loss lesions around the dead teeth. He surmised and then proved that these lesions were a localising reaction; i.o.w., the immune function is still active and is quarantining the infection locally. Those people who got all the diseases going back to previous generations showed bones, that look what dentistry now teaches to be normal. There was no reaction and this is seen as a 'successful' root therapy. The bone around the root therapy may be seen upon closer look to be denser, called a condensing osteitis. Yet these are the very people who get the systemic diseases, which is the exact opposite of what we are taught in dentistry. This was back in the early 20th century. Price did a lot of experiments with dead tooth materials on rabbits and he was able to produce similar diseases in the rabbits. The organisms in the dead teeth can create diseases in remote parts of the body that are not localised to a reaction at the end of the root. Price took a biopsy of a muscle from a woman who was suffering from torticollis (or wryneck, a disease that causes a neck muscle to contract and tilt the head) and with dead tooth tissue he was able to create a batch of rabbits with torticollis.

Price debunked a few myths in dentistry. For instance a tooth is assumed to have one major root canal, but the reality is that it has branches and sub-branches. The dentine of the tooth is a tubular structure running from the pulp chamber to the edge of the tooth. These tubes may contain bacteria. If we line up all these tubes of one's teeth one would have three miles of tubing from end to end. These could be loaded with aerobic bacteria following an infection of a tooth. Price also showed that aerobic bacteria, which depends on oxygen for their survival, could transform themselves into anaerobic bacteria by gradually reducing the available oxygen in a laboratory setting. This has been called pleomorphism.

In the 1970 Steinman, in America was able to demonstrate bacteria in the pulp of the tooth when the decay was only half way through the enamel.

Stortebecker showed that toxins and bacteria transported to the brain, were linked with an increase in brain tumours. He linked multiple sclerosis with dental decay. He found in some cases the identical organisms in the brain that were found in the tooth.

Thus it can be seen that if we fill up a hole in a tooth and reduce the oxygen supply, bacteria do not die but change form into anaerobes. As such they produce some violent haemolytic and neurotoxins which continually leak out of the tooth. This is another way of getting sick with root therapy.

Another way of looking at diseases flowing from decayed teeth is the concept of neural-therapy, which comes from medical research in Germany. This says that any area of dead tissue, scar tissue, inflammatory tissue or foreign body can act as a focus of neural interference. It means that it interferes with the messages sent back to the brain and the brain responding by sending back weird messages. This would result in disease states in remote parts of the body distant from the original focus of the infection. From a practical point of view in the dental surgery we are looking at all these theories to help the whole of the patient, rather than just his teeth.

This work was backed up by Voll who specialised in electro-acupuncture and who was able to map the acupuncture meridians with the different teeth. We often see reproductive problems, kidney disorders and chronic fatigue being related to problem of the front teeth, but obviously there is an overlap.

When we take the tooth the periodontal ligament often remains attached to the bone rather than to the tooth. If there is an infection at that point, there will be an infection for a couple of millimetres into the bone as well. Thus we clean this out. If this is not done then the socket fills up with blood and it clots. The gum grows across the top and joins together. The clot of blood gets replaced by bone, the capillaries grow in from the side and lie down collagen that get filled up. This happens except when you have periodontal ligament or when there is an abscess. These will leave a hole and this is called osteitis. Eugene Rattner found that 90% of areas of osteitis are loaded with anaerobic bacteria.

In terms of disease states, those areas of osteitis create the same sort of diseases from a bacteriological, toxins and from a neural interference point of view as to root therapy. Rattner's work in these areas was partly pathological, but he also looked at the pain referral zones from these areas. He was able to map different parts of the head, face, neck and the back and the back of the legs and arms that related to osteitis in different parts of the mouth. Often from the wisdom teeth area the pain would be up into jaw joint. From the canines the pain would radiate into a different area. From the pre-molars there is again a different spread. Thus there are a whole range of maps. In a clinical situation we see the same pain radiation maps from root therapy teeth.

We get a lot of head and neck pain from root therapy and osteitis, and yet in medicine this is rarely related to dentistry. If it is, than it is regarded as jaw joint stuff. The commonest symptoms of mercury poisoning is headache and we see in our surgery headaches disappear when you get the metals out of the mouths. One reason is the effects of mercury we have talked about, but the other reason is that the amalgam fillings have electrical currents. We are reading these currents in the order of micro-amps. The brain operates at the level of nano-amps, which is a difference of a thousand times. We are creating a electro-magnetic field which affects the central nervous system. One of the feedback from our patients

is that muscles around the neck loosen up when amalgams are extracted. The electrical field in the mouth causes muscle around the neck to spasm and to compress the vertebrae - a C1 and C2 compression - which then results in a headache. Consequently, when these symptoms disappear, we don't have to treat the jaw joint, even if there is a dysfunction there.

Temporo-Mandibular Join Dysfunction (TMJ)

This leads us to another myth in dentistry: the so-called Temporo-Mandibular Joint (TMJ) dysfunction which is said to create symptoms of ear ache, or pain in the joint. Sometimes pain may radiate to the teeth, in the same way that the molar area may radiate pain into the joint.

The autonomic nervous system is that part of the nervous system that regulates the unconscious part of the body, such as heart rate, breathing, sweating, the rate at which the eyes flicker and so on. It comes with two pedals: one is an accelerator called the sympathetic nervous system, the other is a break pad, called the parasympathetic nervous system. When we are healthy both these systems are functioning well together.

What about if we have something that keeps on kicking the accelerator and something else keeps breaking all the time? This analogy could explain a range of symptoms related to the jaw joint problems.

Biomechanically, when you open your mouth, initially you get a rotation, then the joint moves forward and comes away from the skull. It forms an arch. If the joint is misplaced than the vertebrae C1 & C2 will be displaced. Biomechanically, C1, C2, C3 (cervical vertebrae) move in the same direction always as L5, 4, &3 (lumbar vertebrae).

Often the way the head is positioned is related to the jaw joint and this can be related to the way the rest of the spine responds to the position of the head. Thus the jaw joint dysfunction may affect the rest of the body position, including the tension or otherwise of the muscles.

Very often we see patients with a full set of teeth, everything looks normal, but one side of teeth is ground down more than the other side and this may not make sense. However, if one leg is shorter than the other, than you get a pelvic tilt. Consequently, L4 & 5 (lumbar vertebrae) have to compensate for this and there is a biomechanical scoliosis (or lateral curvature of the spine), which will go all the way up to C1 and 2. As a result, if you have a short leg than you will grind your teeth more on one side than the other. Often before adjusting the bite I send my patient to a podiatrist to balance the pelvic girdle.

Most symptoms of TMJ relate to head and neck pain, tinnitus, dizziness, deafness (or reduced hearing) and visual disturbances. Then there is a whole range of the systemic symptoms. For example, one patient came to me with a prostate disorder and after I corrected his bite he soon reported that he no longer had a prostate problem. I am not sure whether it was due to the malplacement of the spine or some disorder of the autonomic nervous system. So we get a lot of reproductive disturbances, lower leg pains and back pains, all relating to jaw joint problems.

The first muscles we contract when we chew or bite or even look nasty are of the posterior cervicals, these muscle relate to the back of the neck. The next muscles we contract are the temporal muscles and the third group are the masseter and the medial pterygoids. These muscles contract in this order when we chew or bite.

When we are frustrated we tend to clench our teeth and therefore we may have spasms in the muscle at the back of the neck. Although the muscles run in different directions, some going up and others going down, the simultaneous contraction of these muscle causes a compression of the cervical vertebrae.

An orthopaedic doctor in the states found that 60% of lower back pain and leg pain came from compression between C3 and C5. He got his patients to stretch their neck with their hands, which would relieve their lower back pain. If you correct the bite as well as leg length, posture and so on, then you often allow the body to repair itself.

I have only given a short and brief description of the problems associated with amalgams, dead teeth and TMJ dysfunction, and am sure you realise that each of these areas has filled many books. I hope you have a taste of knowledge about dentistry and that this may assist the furtherance of health.

References

1)Taken from the Statement from the Federal President to all members of the ADA, 6 August, 1993.
2)Till & Maly (1978)
3)Vimy & Lorscheider (1991)

The Side Effects of Medical Drugs

By Jurriaan Plesman

Drugs and their manufacturers

Outside the medical profession there is much criticism against the overuse of medical drugs in Australia, and this seems to reflect a world-wide trend. The pharmaceutical industry is, of course, heavily subsidized by the Australian tax payer, through the Pharmaceutical Benefits Scheme (PBS) or Repatriation Pharmaceutical Benefit Scheme (RPBS). The profit margins of this industry are enormous and this commercial enterprise is represented by powerful lobby groups at Canberra to preserve the status quo. When a patent of a drug expires another drug company may also produce that drug under a different brand name. However, when a drug company ceases to market a drug because of lack of profits, the patient's needs are often of secondary importance. This was shown in the recently reported case of **Pexid** (perhexiline) an anti-anginal drug which was withdrawn from the market. Many patients were dependent on this medication.

The interests of drug-oriented medicine is not only over-represented in Canberra, but also there seems to be a politically motivated campaign to prosecute some qualified doctors who are underprescribing drugs and practise alternative forms of treatments. These go under the name of "natural medicine, preventative medicine, orthomolecular medicine or non-traditional medicine". That is any medicine taught beyond the walls of a university. This is the kind of medicine that falls outside the standard deviation determined by a computer in Canberra. It alerts the powers that be, that some doctor is practising medicine not within the norms of other doctors. Holistic medicine usually require longer consultation times and more pathology tests to diagnose the underlying causes of illnesses. In many instances this modern type of medicine - not taught at the universities - would ultimately save the tax payer huge amounts of money as well as improve the overall health of its citizens.

The proliferation of drugs and

consequences

The average person over the age of seventy takes six different medications a day. Up to 25 percent of these patients are admitted to hospital as a result of adverse drug reactions.[1] All drugs have side effects[2] and in many cases these are worse than the disease itself. John Dwyer has warned against the assault of antibiotics and other drugs on the immune system, which in the end will help to kill the patient.[3] A medical practitioner has to weigh the advantages of a drug against its disadvantages. Often he may be forced to prescribe a further drug to counter the new set of symptoms caused by his first prescription and thus we see the phenomenon of doctor-induced or **iatrogenic** illnesses.

History of chemotherapy

This century witnessed the success of chemotherapy. In 1910 Paul Ehrlich introduced **Salvarsan** (arsphenamine) to kill the organisms of syphilis, which has now been abandoned for penicillin. In 1935 sulphonamide were introduced to fight harmful bacteria, which were followed by an avalanche of synthetic and semi-synthetic antibiotics. More than 200 species of fungi are known to cause disease in humans and a particular fungus *Candida* is responsible for serious debility and illness. *Parasites* form another class of microbial enemies to humans. 200 million people are infected with malaria. Parasites are divided into protozoans and the helminths (or worms). Of the 30 known protozoans (micro-organisms with one cell) about 15 are harmful to humans, responsible for such diseases as malaria, amoebic dysentery, sleeping sickness, kala-azar, toxoplasmosis, trichomoniasis and giardiasis. Among the worms we find roundworms (Pinworm, Whipworm, Hook worm, Guiney worm), tapeworms (of many different lengths) and flukes. All these illnesses have been overcome by the intervention of drugs. Thus, where would we be today without medical drugs?

Viruses are generally not responsive to drug therapy. They are so small that the majority cannot be seen under a light microscope (they range from 17-300 nanometers - one nanometer is one billionth of a meter[4]), and they consist only of a nucleic acid, either DNA or RNA in an envelope of protein. Viruses are clever creatures who seem to be outsmarting the scientists. The latest and most dangerous virus is the HIV (Human Immunodeficiency Virus) which is able to attack the very white cells that are supposed to defend us against it. Its RNA molecule replaces part of the hosts DNA and instructs the cell to make more viruses. Consequently, the person is left without a natural defence system and later succumbs to various diseases that are known as AIDS (Acquired Immune Deficiency Syndrome). The disease is spreading in an uncontrolled fashion all over the world and so far scientists have not found a cure or vaccination against this disease. Its transmission to other humans is still subject to much controversy.[5]

Tuberculosis, once thought to have been eradicated, has reared its ugly head with a vengeance. The micro-organism - *Mycobacterium tuberculosis or bovis* - has learned to resist treatment by the usual drugs (streptomycin, para-aminosalicylic acid PAS, rifampin, isoniazid, ethambutol, pyrazinamide, thiacetazone and so on). The disease appears to be a socio-political illness as it affects the New York homeless underclass, who are forced to live in close proximity because of their economic circumstances. Many of these have been evicted from mental hospitals.

Thus a brief history shows the rise and fall of drugs and the question is whether true medical research will come up with new approaches. Whenever we hear about a new sensational medical discovery it simply is an advertisement of a "new miracle drugs". Medical research is often equated with drug research. The truth is that very little funds are made available for medical research outside the pharmaceutical arena. We are fortunate to have the CSIRO as an independent research institution, but they too are under constant threat of extinction.

NOTE: Any information provided in this article should not be used to change your medication or self-medication. Your doctor is responsible for your treatment and you should discuss supplementing your diet with nutrients with your doctor if you are on any medication.

Infectious and degenerative diseases

Whereas in the past drugs appear to have cured most of the illnesses, their effectiveness in modern diseases has fallen into disrepute. Perhaps it may help to distinguish between infectious disease and degenerative diseases.

In 1900 the death rate in Europe was about 600/100,000 in the population. Death due to acute infectious diseases declined to about 50/100,000 in 1960, whereas deaths from non-infectious (degenerative) diseases climbed to 700/100,000 in that year.[6] The gap between the two would be much larger now. Thus drugs have been very successful in protecting us against microbial enemies, but has failed us in overcoming degenerative (life-style) diseases. Degenerative diseases include, such disorders as cardiovascular diseases, osteoporosis, rheumatoid arthritis, cancers, hormonal disorders, allergies and food intolerances, chronic fatigue syndrome, many skin disorders (psoriasis, acne), asthma, hay fever, many gastrointestinal disorders, ulcers, Parkinson's disease, migraine headaches, prostate disorders, Alzheimer's disease, epilepsy, obesity, hypoglycemia, diabetes, insomnia, mental illness, schizophrenia, in short many of the modern diseases for which no cure is known.

Drugs used to fight bacteria may be said to "cure" a disease. Drugs used in degenerative disorders do not pretend "to cure", but rather attenuate their symptoms. Thus high blood pressure tablets may help to lower blood pressure, but do not cure the underlying cause - unknown to medicine at present. Neuroleptic drugs can calm down a schizophrenic person, but cannot rid him of the underlying mental illness. Thus we have entered the era of **allopathic medicine**, characterised by the treatment of symptoms only and the suppression of the signs of disease that cry out for help. The dilemma is that modern drug-therapy is both harmful and beneficial, and that many people depend on them for their very survival. Whereas in the past side effects were of minor consideration, now, that they are being used for incurable diseases, long-term side effects becomes a prime consideration.

Nutritional supplements may reduce the side effects of drugs

Ideally, medical treatment should use drugs as a last resort, and ideally, doctors and health practitioners who try to avoid drugs and treat the underlying disorder instead should be fully supported by the community. No doubt, the mounting criticism against traditional medical practice will result in a political response in the not too distant future. In the meantime, the reality is that at the present stage of conventional medical treatment, people have no options but to take drugs for their survival and this apply especially to the elderly.

It is suggested in this article that a major cause of side-effects of drugs is the interference with the absorption and/or metabolism of vitamins, minerals and other nutrients, and therefore that the administration of drugs should be accompanied with the missing nutrients. This is indeed a bold statement, as their is a scarcity of information on drug/nutrient interaction. It is amazing that most resource books on pharmaceutical drugs are totally silent on the effects of drugs on nutrition and vice versa. Most of the information here are gathered from diverse sources and indeed little is known about the mechanisms underlying the causes of side effects.

Nutrients may oppose the intended effects of drugs

Furthermore, the statement must be tempered in the knowledge that certain nutrients may oppose the effects of drugs for which they are taken. Examples are the supplementation of vitamin B6 (pyridoxine) with the anti-Parkinson drug (levodopa), unless taken in combination with carbidopa **Sinemet** or benserazide **Madopar**.[7] This drug converts dopa into dopamine (deficient in Parkinsons disease) in the presence of B6, but supplemented B6 will not necessarily convert dopa

TABLE 1

Drugs that may cause depression. Brand names in [...] are American equivalents.

Drug	BrandName
acebutolol;	**[Sectral,]**
acetazolamide;	**Diamox,**
acetohexamide;	**[Dymelor, Dimelor,]**
acyclovir;	**Zovirax,***
amantadine; amantidine;	**Antadine, Symmetrel**
aminophylline;	**Aminophylline, inj.**
aspirin;	**Many Brandnames containing aspirin or Codein**
atenolol;	**Tenormin, Ternormin+CD, Noten**
baclofen;	**Lioresal,**
bromocriptine;	**Parlodel,**
calcium carbimide;	**Dipsan,**
chlordiazepoxide; +clidinium;	**Librax,**
chlorothiazide;	**Chlotride, Azide, Diuret,**
chlorpropamide;	**Diabenese,**
chlorthalidone;	**Hygroton, Tenormin+CD (with atenolol)**
choline theophyllinate;	**Brondecon, Choledyl,**
cimetidine;	**Tagamet, Duractin,**
clonazepam;	**Rivotril,**
clonidine;	**Catapress, Dixarit**
cortisone;	**Cortate, tabs**
danazol;	**Danocrine,**
dexamethasone;	**Oradexon tabs & inj, Dexamethasone; Decadron Phosphate Inj; Sofradex, Maxidex, Tobispray,**
dexamethasone;+tramazoline;	**Tobispray,**
dichlorphenamide;	**Daranide,**
diethylproprion;	**Tenuate, Tenuate Dospan**
digitalis; digoxin;	**Lanoxin, [Acylanid]**
digitoxin;	**[Crystodigin,]**
digoxin;	**Lanoxin tabs & inj, Lanoxin PG Paediatric Elixir**
diphenoxylate; +atropine;	**Lomotil,**
disulfiram;	**Antabuse,**
enalapril;	**Renitec, Amprace,[Vasotec]**
ethinyloestradiol;	**Estigyn, Mixogen tabs, (+methylyestosterone)**
ethinyloestradiol;+ethynodiol;	**Ovulen,**
ethinyloestradiol;+levonorgestrel;	**Biphasal, Microgynon, Microlut, Nordette Nordiol, Norinyl-1, Sequilar, triphasal, Triquilar**
ethinyloestradiol;+norethisterone;	**Brevinor, Synphasic**
ethosuxamide;	**Zarontin,**
ethyloestrenol;	**Orabolin**
ethyloestrenol;	**Orabolin, tabs**
ethynyloestradiol;	**Estigyn tabs,**
ethynyloestradiol;+ methyltestosterone;	**Mixogen, tabs**
felodipine;	**Plendil ER, Agon,**
fenfluramine; HCL	**Ponderax, tabs & SR caps**
fluoxymesterone;	**Halotestin, tabs**
glipizide;	**Minidiab, [Glucotrol]**
guanethidine;	**[Ismelin, Esimil]**
hydralazine;	**Apresoline, Alphapress, Supres**
indomethacin;	**Indocid, Arthrexin, Rheumacin,**
interferon;	**Intron A, Roferon A, Inj.**
isoniazid; isonicotinic acid hydrazide;	**Isoniazid,**
labetalol;	**Trandate, Presolol**
labetalol; HCL;	**Presolol,**
labetalol; HCL;	**Presolol, Trandate, [Normodyne]**
levodopa; L-dopa;	**Levodopa; Larodopa w carbidopa; Sinemet, Sinemet-M with benserazide;Madopar, Madopar M, Madopar Q,**
levodopa;+ beserazide;	**Madopar, Madopar M, Madopar Q**
levodopa;+ carbidopa;	**Sinemet, Sinemet-M**
lisinopril;	An anti-hepertensive
mazinol;	**Sanorex,**
mesterolone;	**Proviron, tabs**
methazolamide;	**Neptazane,#**
methazolomide;	**Neptazane,**
methenolone;	**Primobolin**
methotrexate;	**Ledertrexate, Methoblastin, Methotrexate tabs & inj**
methyclothiazide;	**Enduron, Eduron M,**
methyldopa;	**Aldomet, Hydopa,**
methylphenobarbitone;	**Prominal,**
methyltestosterone;	**Testomet tablets, Eldec(With vitamins), Mixogen (w ethinyloestradiol;), see also ethylnyloestradiol;**
metoclopramide;	**Maxalon, Metamide, Pramin,**
metoprolol;	**Betaloc, Lopressor, Minax**
metronidazole;	**Flagyl, Metrogyl, Metrozine, Protostat, Trichozole gel for skin,**
minoxidil;	**Loniten,**
morphine;	**Morphalgin,(Aspirin w mor phine)**
nadolol;	**[Corgard, Corzide]**
nalidixic acid;	**Negram,**
nandrolone;	**Durabolin Inj, Deca-Durabolin Inj**
nifedipine;	**Adalat 20 tabs, Adalat & Adalat**
norfloxacin;	**Noroxin,**
oestradiol;	**Progynova Tabs, Primogyn, Oestradiol Inplant inj, Primodian Depot inj (+testosterone)**
oxandrolone;	**Lonavar, Tabs**
oxprenolol;	**Corbeton, Trasicor,**
oxymetholone;	**Adroyd tabs, Anapolon tabs**
paracetamol;	**Percodan,**
paracetamol;+codeine;+doxylamine; or pentobarbitone;	**Nembudeine, Pentalgin**
penbutolol;	**Lobeta,**
pentobarbitone;	**Barbopen, Carbrital,**
pentobarbitone;	**Nembudeine, Pentalgin, Nembutal,**
phenobarbitone;	**Phenobarbitone,**
phenobarbitone;	**(with hyoscine) Donnatal, LA;**
phenobarbitone; +hyoscine;	**Donnatal LA,**
phentermine;	**Duromine,**
phenytoin;	**Dilantin,**
pindolol;	**Visken, Visken+Brindalix, Barbloc**
prazosin;	**Minipress,**
prednisone;	**Deltasone, Panafcort, Sone,**
primidone;	**Mysoline,**
propranolol;	**Cardinol, Deralin, Inderal***
ranitidine;	**Zantac,**
rauwolfia;	**Raudixin,**
reserpine; rauwolfia; alkaloid	**[Serpasil, Ser-Ap-Es]**
rifampicin;	**Rifadin, Rimycin**
secobarbital;	**[Secogen, Seral, Tuinal, Seconal]**
sotalol;	**Sotacor,**
sulthiame;	**Ospolot,**
tetrabenazine;	**Nitoman,**
theophylline; or choline-theophyllinate;	**Austyn SR, Theo-Dur (theodur); and many others**
theophylline; or choline-theophyllinate;	**Elixophyllin & Elixophyllin-Kl and many others**
timolol;	**Blocadren, Timoptol, Tenopt**
tinidazole;	**Fasigyn,**
tolbutamide;	**Rastinon, [Orinase]**
triazolam;	**Halcion,**
verapamil;	**Isoptin, Isoptin SR & inj, Veracaps SR, Anpec, Verapamil CP, many others**
vinblastine sulphate;	**Velbe, Vinblastine Sulphate Inj**

within the brain cells where the vitamin is required. Some authors advocate the use of tyrosine - a forerunner of dopa and dopamine - in conjunction with the drug.[8] Henry Osiecki[9] writes that B6 can be taken with carbidopa to overcome its deficiency caused by **L Dopa.**

High doses of folic acid (vitamin B9) and B6 may decrease the effects of (phenytoin) **Dilantin** a drug prescribed for epilepsy.[10]

Side effects

But first, let us make it clear that by side effects we mean possible or *potential* side effects, as only a small proportion of patients fall victim to these side effects.

For instance with the following drugs **Capoten** (captopril) and **Renitec, Amprace** (enalapril) used in the treatment of hypertension (high blood pressure), it was found that about 15-20 percent of patients experienced a persistent dry cough.[11]

The emergence of side effects depend on many factors, such as the dose of drug, the health and age of patient and whether he/she is using other drugs. Each person may react in a unique way to pharmaceutical drugs. Older people are more sensitive to drugs than younger people and the dose needs to be individually adjusted.

Dry cough and a dry mouth is a common potential side effect of many drugs especially among the antihistamines and the so-called anticholinergic drugs containing atropine and used in the relief of diarrhoea in irritable colon and many other diseases (**Lomotil, Lyspafen, Donnagel, Donnatal, Atrobel, Contact Cold, Neo-Diophen)**. Many of the anti-Parkinson drugs such as **Artane, Antispas** (benzhexol) - also used for tardive dyskinesia[12],[13] - **Cogentin** (benzotropine), **Akineton** (biperiden), **Kemadrin** (procyclidine) and many others also belong to this group.

The reason seems to be that these drugs oppose the action of a neurotransmitter called acetylcholine released at nerve endings onto smooth muscle within the walls of the bowel, bladder, urinary tract, bile ducts and airways. Acetylcholine stimulates sweat and saliva flow, secretions in nose, stomach and bronchial airways, improves muscle tone and slows heart rate. By opposing acetylcholine the drugs appear to dry up secretions and cause dry mouths and coughs. Since choline, found in lecithin or in choline bitartrate (obtainable from health food stores) is the forerunner of acetylcholine[14] it is suggested on theoretical grounds that these drugs should be taken together with choline or lecithin[15]. When drugs cause constipation again choline plus vitamin B5 could activate the smooth muscle of the intestinal wall.

In fact, the potential side effect of forgetfulness (amnesia) could also be overcome by taking choline. Most of the anti-depressant drugs, major and minor tranquillisers and anti-epilepsy drugs can cause forgetfulness. Sometimes forgetfulness is mistaken as the first sign of **Alzheimer's Disease,** a dreaded disorder of old age, which can turn a person into a vegetable and make him completely dependent on a "carer". Very often, however, it may be due to a thiamine (vitamin B1) deficiency, especially when a person is or has been a regular alcohol consumer. In that case a zinc deficiency should also be suspected.

Forgetfulness belongs to a cluster of side effects affecting one's mental state and are usually found together with confusion, dizziness, disorientation and depression.

As an illustration I would like to concentrate on **depression** as one potential side effect and we find a surprising number of drugs that may be responsible as shown in **Table 1.**

Of the 127 drugs mentioned[16], 87 or about 70% of them are known to affect or interfere with the metabolism or absorption of a multitude of vitamins and minerals. Notably folic acid (41 drugs), vitamin B12 (22), B1 (38), vitamin D (17), vitamin B6, vitamin C (26), vitamin K (37).

Generic drugs, brand names and chemical names.

When a pharmaceutical company introduces a newly developed drug, it enjoys a monopoly on the sale of that drug for a number of years, protected by a *patent*. Once a patent expires any other drug company may also then produce and market that same drug under a different **brand name**. This is called a **generic** form of the drug and usually at a lower price. In this article the **brand name** of a drug is shown in bold type and the **chemical name** in brackets for example, **Valium, Ducene, Pro-pam, Antenex, Diazepam inj., Diazemuls** (diazepam), if appropriate. To save space I have avoided listing the brand names of some drugs and the readers might check these names against the labels on their bottles.

Drugs causing hypoglycemia

Many of the antihypertensive and diuretic drugs - thiazide, calcium channel blockers and the beta-blockers - may cause a glucose intolerance. **Hygroton,** (Chlorthalidone), **Tenormin** (Atenolol)**, Chlotride, Azide, Diuret, Dichlotride** (chlorothiazide), **Enduron** (methyclothiazide), **Diamox** (acetazolamide), **Neptazane** (methazolamide), **Renitec** (enalapril), and a host of hypertensive beta-blockers (for high blood pressure) such as **Blocadren** (timolol), **Cardinol, Deralin, Inderal** (propranolol), **Lobeta** (penbutolol) and more fall into this category.

They seem to interfere with the effects of insulin activity. This could account for the side effects of dizziness, drowsiness, confusion, muscle weakness and depression so often associated with these drugs.[17] Who knows, there may well be some drugs when used over a long period of time that could be responsible for mature onset diabetes.

The blocking of vitamin B6

The mechanisms causing depression are manifold. About 22 drugs in the list interfere or block the absorption of vitamin B6, which is needed to transform tryptophan into serotonin, a neurotransmitter required for sleeping, relaxation and general sense of well-being and also smooth muscle contraction of the intestinal wall. This could account for the side effect of depression and some of the drugs involved are; phenytoin, chlorthalidone, enalapril, minoxidil, levodopa, rifampicin, theophylline, cortisone, prednisone, dexamethasone, methyclothiazide, chlorothiazide, female sex hormones and oral contraceptives.

Drugs that interfere with tryptophan

In fact, drugs classed as corticosteroids, oral contraceptives or female hormones and anti-Parkinsons are reported to interfere directly with tryptophan metabolism, such as; dexamethasone, ethinyloestradiol, levodopa. These drugs may also affect vitamin C, D, and B6.

Vitamin B12 & folic acid

A deficiency of vitamin B12 and folic acid are known to cause depression and there are many drugs that interfere with the absorption or metabolism of these nutrients. Drugs such as acetazolamide, clonazepam, female sex hormones, isoniazid, metformin, methyldopa, methylphenobarbitone, drugs containing paracetamol & codeine, doxylamine, pentobarbitone, phenobarbitone, phenytoin, primidone, sulthiane belong to this category. One mechanism may be that a drug could decrease the pH of the ileum below pH 6.2 (rendering the intestinal environment too acid) causing impaired B12 absorption as with potassium chloride. Or else some drugs interfere with the intrinsic factor, a mucoprotein secreted in the stomach and needed for the absorption of B12 in the terminal portion of the ileum. Vitamin B12 is required for the maturation of red blood cells in the bone marrow.[18]

The following drugs are known to interfere with the **intrinsic factor**: cholestyramine, cimetidine, colestipol, gemfibrozil, metformin, phenformin, probucol, ranitidine, simvastatin.

A B12 deficiency may take some time to appear and apart from pernicious anaemia begins with changes in the nervous system, which may cause some type of brain damage associated with psychotic symptoms. These may vary from mild disorders of moods, mental slowness or memory defects. Other signs are sore mouth, numbness or stiffness, shooting pains, pins and needles, hot and cold sensations. In more severe states it may lead to neuritis, unpleasant body odour, menstrual disturbances and difficulty in walking.[19] It may therefore be helpful to supplement those drugs with vitamin B12 and folic acid.

Drugs that interfere with zinc absorption

Over 80 enzymes are known to require zinc as a co-enzyme[20] and hence drug-caused deficiency not only may cause depression, but also other side effects. For example, zinc is an essential element in the metabolism of pyruvate to acetyl-Coa in the glucose energy pathway and its deficiency may cause severe mood swings. It is also an essential element in various enzymes that protect us against free radical attack as in superoxide dismutase which reacts with superoxide radicals to substances less dangerous within the cytoplasm. This enzyme plays an important role in the prevention of arthritis and cataracts. Long term zinc deficiency may lead to a host of symptoms; such as stretch marks of the skin, white spots in fingernails, but more seriously zinc deficiency has been associated with arteriosclerosis, atherosclerosis, diabetes, alcoholism, night blindness (together with vitamin A), prostatitis, rheumatoid arthritis, acne, dermatitis, delayed wound healing and ulcers. Other symptoms are: Acne, alopecia, anorexia, apathy, brittle nails, depression, eczema, fatigue, high blood cholesterol, hypogeusia (loss of taste), impaired wound healing, impotence, irritability, memory impairment and paranoia. Among drugs that can potentially cause depression we find the following drugs interfering with zinc absorption; chlorothiazide, chlorthalidone, cortisone, dexamethasone, digitalis, digitoxin, digoxin, enalapril, female sex hormones, methyclothiazide, prednisone.

Bone pain

Some drugs such as cortisone, dexamethasone, methotrexate, prednisone, primidone interfere with vitamin D and hence affect bone growth and calcium absorption. A side effect is bone pain. Other drugs - mainly corticosteroids - affecting vitamin D and calcium may cause also arthritis-type symptoms.

Conclusion

Drugs treating degenerative diseases without curing the underlying illness inevitably are ingested over a long period of time. Being foreign to the body (xenobiotic substances) they will interfere with the digestion and absorption of nutrients in the gut and destroy the naturally occurring intestinal flora, which produce vitamins and minerals from within. Antibiotics are well known to cause general vitamin and mineral deficiencies. Drug metabolites (poisons) need to be detoxified in the liver - a process that has priority over the normal metabolism going on - requiring high doses of vitamin C, zinc and B6 and other co-enzymes. Other excretory organs such as the bowel, kidney and skin have to work harder and often become targets of "side-effects" in terms of nausea, diarrhoea and skin rashes. Thus it would appear that persons on long term drug treatment need greater quantities of nutrients than are available in a normal diet.

It is crucial that drug manufacturers start to inform their customers of the effects on drug-nutrient interactions concerning each medication. Whilst we are awaiting more scientific studies, we should consider adhering to a natural diet and supplementing it with a broad range of vitamins and minerals in consultation with your doctor. Where a specific adverse drug-nutrient interaction is known[21], we may then add a specific range of nutrients to a particular drug.

It is therefore considered that side-effects of long term drug use can be reduced by taking vitamins, minerals and other micro-nutrients.

References

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14 This conversion is dependent on the presence of vitamin B1 & B5

15 Other sources of choline are egg yolk, organ meats, Brewer's yeast, wheat germ, soybeans, fish, legumes, lecithin.

16 **Table 1** shows a lesser number as certain common drugs are shared and have been grouped together. For instance drugs containing aspirin or codeine go under various brand names, which have been left out.

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The Case of Daniel*

* Name changed for ethical reasons

Dr George Samra referred a patient to the Clinical Research Unit for Anxiety Disorders at Sydney's St Vincent's Hospital with the results of a Glucose Tolerance Test as shown in Chart 1. This showed clear evidence of a glucose intolerance explaining some of Daniel's symptoms

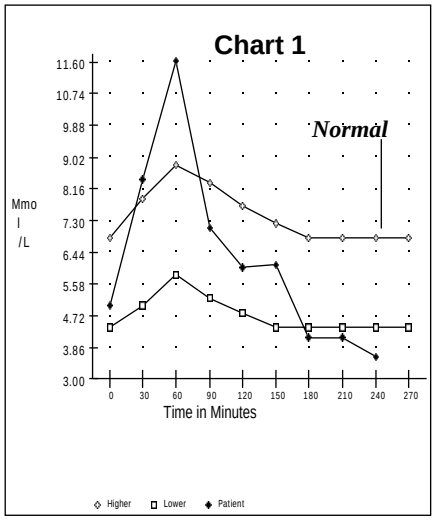
Dr George Samra received the following letter from Dr Conrad R. Newman.

"Dear Dr Samra

Re: Daniel

Thank you for referring this 28 year old man to the Anxiety Disorders Clinic. As you are aware he had a recent episode of depression which it seems may have had an organic basis. As I understand it you have diagnosed hypoglycaemia and with a change in hist diet he has had full resolution of symptoms. He also described some difficulty with his self esteem and a fear that others might evaluate him negatively. However these do not appear to be of sufficient severity at this point in time to warrant intervention. Daniel did not feel he was in need of further Psychiatric treatment. He also had some difficulties in regard to his sexual identity and made good use of the opportunity to discuss these. I suggested to Daniel that he monitor himself on an ongoing basis for symptoms and if his depressive symptoms recur whilst on the modified diabetic diet that he contact me again for review. Should you require any further details at this point in time please do not hesitate to contact me. Your sincerely

Signed Dr Conrad R. Newman



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RECIPES

BY PATRICKA SHEILES

BREAD

This is a wonderful type of scone: bread; cake mixture for anyone who is allergic to all grains except rice and who is allergic to milk, gluten, bakers yeast, sugar and highly processed foods. It is a joy to make your own edible bread that can be completed in approximately 70 minutes. I hope you enjoy this delightful recipe!

Ingredients:
2 cups rice flour
1/3 cups goats milk powder
1 teaspoon salt
1/2 teaspoon gluten free powder made from:-
rice flour, phosphate aerator, sodium bicarbonate
(Wards Baking Powder sold in Supermarkets)
1/2 teaspoon cream of tartar
1/3 cup milk free margarine: Becel, Sundew, Canola
1 cup (250 mls purified water

Blend all the above ingredients in a kitchen whiz or blender, or any kitchen appliance or by hand.

Add the water to a dough consistency. Punch the dough mixture adding some extra sprinkled flour to help with rolling, folding the dough over the top of itself, continuing until it forms a strong round consistency like a small damper or small round snow top loaf. Finally, pat the edges into place. Put inside the pre-greased corning ware TMVision pot and place on the lid. Put it inside the oven that is ready at 225 deg. for 20 minutes and then remove it from oven. Turn it out onto a plate to turn it over and place it back inside the pot with the lid on and cook for a further 20 minutes to brown both side and to cook it through to the middle.

Enjoy the allergy free, tin free bread and the happiness of home made cooking.

Preparation Time: 30 minutes
Cooking Time: 40 minutes
Total time to complete 70 minutes

SCRUMPTIOUS SUGGESTIONS

Add anything that takes your fancy before you bake.

Turn it into muffin.

Add cinnamon and sultanas.

Make garlic, onion and tomato bread

Cheese sticks are everybody's favourites.

Cheese and chives.

Ham and cheese or onions or tomatoes.

Gout

Excerpt from
The Physicians Handbook of Clinical Nutrition
By Henry Osiecki (1990), Bioconcepts Publishing, Kelvin Grove, QLD.

GOUT is a common form of arthritis that is associated with raised blood level of uric acid. In 50 % of cases it is manifested as an inflammation in the metatarsophalangeal joint of the big toe. The inflammation and pain is attributed to the aggregated deposits of monosodium urate monohydrate (tophi) in and around the joints of the extremities, as well as the kidney, tendons and bone. 95% of sufferers are men with an incident of 3 in 100 adults having the symptoms although 10-20% of the population have elevated serum uric acid level.

Biochemical considerations

Gout is a condition characterised biochemically by increased serum uric acid levels, leukotriene levels and neutrophil accumulation in the inflamed area.

Uric acid level may be attributed to: 1) Increased uric acid synthesis from purine metabolism. 2) Reduced ability to excrete uric acid. Drugs such as diuretics and aspirin may contribute to this. Alcohol decreases excretion from the kidney as well as increasing synthesis of uric acid.

Uric acid is a highly water insoluble molecule and deposits easily in cold temperatures, which explains the increased attacks in cold weather. The inflammation caused by this precipitation is associated with activation of the inflammatory pathway ie. Prostaglandins & Leukotrienes release.

Xanthine oxidase is the enzyme that converts Xanthine to uric acid and if inhibited lowers the production of serum uric acid. Quercetin and Folic Acid are powerful inhibitors of this enzyme. The amino acids alanine and glycine increase uric acid excretion.

Nutritional treatment

1 Avoid alcohol, tea, coffee, refined carbohydrates and saturated fats.
2 Purine intake must be reduced - avoid yeast, shell fish, organ meats and offal.
3 Reduce weight if possible.
4 Increase fluid intake.
5 Supplement with essential fatty acids
6 Avoid taking high intakes of Vitamin C and niacin (B3).
7 Increase consumption of cherries and blueberries.
8 Check for lead toxicity.

1994 MEETING DATES

5th MARCH - 4th JUNE - 3rd SEPTEMBER - 3rd DECEMBER