THE THYROID GLAND: WHERE IS IT AND WHAT DOES IT DO?
The thyroid gland is located just beneath the larynx (voice box) in the throat. It produces two hormones: T3, or triiodothyronine, and T4, or thyroxine. The two thyroid hormones increase basal metabolic rate (BMR) – the rate of oxygen consumption at rest, or in layman’s terms, how much energy the body uses to carry out its vital functions.
Thyroid hormones elevate body temperature, stimulate protein synthesis, increase the use of glucose and the breakdown of fats for energy production, and enhance the excretion of cholesterol in bile (thus lowering blood cholesterol). Thyroid hormones, acting with human growth hormone and insulin, accelerate growth, particularly of nervous tissue. Thyroid hormones also profoundly affect mood, emotions and thinking processes.
Thyroid hormones are made from the mineral, iodine, and the amino acid, tyrosine. Structurally, thyroid hormones are very similar to the neurotransmitters (brain chemicals) noradrenaline and dopamine, which helps to explain why thyroid hormones have such profound effects on mind and mood.

WHAT CAN GO WRONG WITH THE THYROID GLAND?
Thyroid disorders are very common, although there is little agreement on exactly how common. It is conservatively estimated that about one in forty Australians has some type of problem with their thyroid, while US endocrinologist, Ridha Arem, states that one in ten Americans has a thyroid imbalance. Females are far more prone to thyroid disorders than males.
The major types of thyroid disorders are underactivity of the thyroid gland, known as hypothyroidism, and overactivity, called hyperthyroidism. Goitre – enlargement of the thyroid gland – can occur in either hypo- or hyperthyroidism. 96% of goitres throughout the world are caused by iodine deficiency, which causes hypothyroidism. When iodine is lacking, the pituitary gland in the brain secretes more thyroid stimulating hormone (TSH), which causes thyroid cells to enlarge.
Naturally low levels of soil iodine occur throughout Europe, central Asia, parts of Africa, and also Tasmania. In Australia, however, dietary iodine deficiency is quite rare because iodine is added to salt, bread, most multivitamins and many medications.
Table 1 shows the prevalence of iodine deficiency throughout the world, as measured by low urinary iodine levels. Australia is included in the Western Pacific region.

Table 1:
Prevalence of iodine deficiency in the general population (all age-groups) and in school-age children (6-12 years) in 2003

<table>
<thead>
<tr>
<th>WHO regions*</th>
<th>Population† with urinary iodine &lt;100 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General population</td>
</tr>
<tr>
<td>AFRICA</td>
<td>260325000 (42.6%)</td>
</tr>
<tr>
<td>AMERICAS</td>
<td>75081000 (9.8%)</td>
</tr>
<tr>
<td>EASTERN MEDITERRANEAN</td>
<td>228451000 (54.1%)</td>
</tr>
<tr>
<td>EUROPE</td>
<td>435452000 (56.9%)</td>
</tr>
<tr>
<td>SOUTHEAST ASIA</td>
<td>624013000 (39.8%)</td>
</tr>
<tr>
<td>WESTERN PACIFIC</td>
<td>365332000 (24.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>1988654000 (35.2%)</td>
</tr>
</tbody>
</table>

*192 WHO Member States.

Most cases of enlarged thyroid are, fortunately, not due to cancer; thyroid cancer is relatively rare.
HYPOTHYROIDISM

Women are five times more likely to suffer low thyroid hormone levels than men. Low-grade hypothyroidism may affect up to ten per cent of the population, while two per cent suffer severe hypothyroidism. Hashimoto’s thyroiditis is the most common hypothyroid condition, affecting one in ten women at some point in their lifetime.

Because thyroid hormones impact on every bodily system, signs and symptoms of low thyroid hormone levels are many and varied, as Table 2 shows:

| Table 2: Signs and symptoms of hypothyroidism[
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cardiovascular system</td>
</tr>
<tr>
<td>Reproductive system</td>
</tr>
<tr>
<td>Hair, skin and nails</td>
</tr>
<tr>
<td>Gastrointestinal tract</td>
</tr>
<tr>
<td>Musculoskeletal system</td>
</tr>
<tr>
<td>Immune system</td>
</tr>
<tr>
<td>Mental/psychological</td>
</tr>
<tr>
<td>General</td>
</tr>
</tbody>
</table>

Hypothyroidism is medically diagnosed when elevated levels of TSH and decreased T4 are found in the blood. If T4 is normal but TSH is elevated, ‘subclinical’ or ‘low-grade’ hypothyroidism will be diagnosed. There is now evidence that people whose TSH is in the upper reaches of the ‘normal’ range may in fact have subclinical hypothyroidism, and are highly likely to progress to ‘full-blown’ hypothyroidism.[13] Doctors will often not treat until hypothyroidism with above normal TSH and low T4 develops. Low-grade hypothyroidism, however, is the easiest of all the thyroid disorders to treat naturally (see case study below), and should be addressed as soon as it becomes evident.

Many alternative practitioners, and some doctors, believe that the blood test is not sensitive enough to detect mild hypothyroidism. They prefer to use the basal body temperature (BBT), which is lower in hypothyroidism, for diagnosis. Whereas 10–12% of people have mild hypothyroidism if blood tests are used for diagnosis, that figure is around 25% if the BBT is used.[16] However, many conditions, including depression, post-traumatic stress disorder, eating disorders and kidney failure, can cause a lower-than-normal BBT — so clearly, the BBT is not precise enough to identify hypothyroidism. In any case, only severe hypothyroidism causes a drop in body temperature, as opposed to a perception of being ‘cold’.[17]

Causes

- Autoimmunity (Hashimoto’s thyroiditis and primary autoimmune thyroiditis).
- Iodine deficiency (in developing nations with low soil iodine).
- Defect in iodine metabolism.
- Excess intake of goitrogens.
- Deficiency of vitamins A and E, selenium, zinc.[18]
- Radioactive iodine therapy, drugs or surgery for hyperthyroidism, goitre or thyroid cancer.
- Late result of Graves’ disease (hyperthyroidism).
- Subacute thyroiditis (due to a viral infection) or silent thyroiditis (an immune attack on the thyroid gland); both result in transient hypothyroidism.
- Absence or poor development of the thyroid (congenital or childhood hypothyroidism).[19]
- Medical drugs: diet pills, oestrogen, some anticonvulsants, rifampin, p-aminosalicylic acid, iodides, lithium, amioderone, interferon, interleukin-2.[20]
- Radiation treatment for head and neck cancers, lymphoma or acne.[21]
- Cigarette smoke, chlorinated compounds e.g. pesticides.[22]
- Disorders of the hypothalamus or pituitary gland (extremely rare causes).[23]
- Hereditary tendency.[24]
- People with blood type A are more prone.[25]
HYPERTHYROIDISM

The major types of hyperthyroid conditions are Graves' disease (more common in people aged 20 to 40) and thyroid nodules (usually in the over-40s). Increased thyroid activity is not always pathological, however — it is normal for thyroid hormone levels to rise in conditions where energy demand is increased, such as cold environments, hypoglycaemia, high altitude and pregnancy.[26] Women are five to ten times more likely to develop hyperthyroidism than men.[27] The thyroid gland may be either enlarged or shrunk in hyperthyroidism.[28]

As with underproduction, excessive production of thyroid hormones can cause a multitude of symptoms, as Table 3 shows.

Table 3: Signs and symptoms of hyperthyroidism.[28]

<table>
<thead>
<tr>
<th>Mental/psychological</th>
<th>Nervousness; anxiety; panic attacks; irritability; fluctuating moods; over-reaction to minor setbacks; depression; hypochondria; disorganised thinking; emotional withdrawal; loss of emotional control; paranoia; aggression; episodes of erratic behaviour; psychosis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive system</td>
<td>Females: low or exaggeratedly high libido; infertility; menstrual irregularity (usually more frequent periods); light menstrual flow. Males: impotence; enlargement of breasts; low libido; infertility.</td>
</tr>
<tr>
<td>Hair, skin &amp; nails</td>
<td>Hair loss (alopecia areata), thinning and greasiness. Soft, easily torn nails; separation of the nails (especially of the ring finger) from the nail beds; clubbing of the fingertips.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Exophthalmus (bulging eyes – think Marty Feldman!); staring.</td>
</tr>
<tr>
<td>Musculoskeletal system</td>
<td>Weakness, particularly of the thigh, shoulder and upper arm muscles; osteoporosis.</td>
</tr>
<tr>
<td>Gastrointestinal system</td>
<td>Increased hunger; frequent bowel movements; diarrhoea; vomiting.</td>
</tr>
<tr>
<td>Cardiovascular system</td>
<td>Rapid pulse; enlarged heart; atrial fibrillation (fluttering beat); systolic hypertension – predisposing to heart failure; angina; reduced platelets (causing prolonged bleeding after injury).</td>
</tr>
<tr>
<td>General</td>
<td>Insomnia; fatigue; overactivity; intolerance of heat; weight loss; tremor (especially in the hands); increased thirst.</td>
</tr>
</tbody>
</table>

Causes

- Autoimmunity (Graves' disease).
- Excessive intake of iodine-rich foods, e.g. kelp.[30]
- Excess thyroid hormones from over-medication or endocrine changes.
- Subacute thyroiditis (due to a viral infection) or silent thyroiditis (an immune attack on the thyroid gland); both cause transient hyperthyroidism followed by hypothyroidism.[31]
- Liver damage leading to inadequate breakdown of thyroid hormones.
- Deficiency of vitamins A, E, B₆.[32]
- Diet pills.
- Pituitary tumour.
- People with blood type O are more prone.[33] (Note that Peter D'Adamo contends, in Eat Right 4 Your Type, that type Os are more prone to hypothyroidism; there appears to be no scientific evidence for this claim.)

AUTOIMMUNITY AND THYROID DISORDERS

Observant readers will have noticed that the major types of both hypo- and hyperthyroid disorders involve autoimmunity. Autoimmune diseases occur when the body loses 'immunological tolerance' – the immune system's normal capacity to recognise all the body's own cells as 'self'. Often in autoimmune diseases, the immune system 'mistakes' antigens (marker molecules) found on body cells for antigens belonging to 'invaders' such as viruses or bacteria. This process of 'mislaid identity' is called molecular mimicry. Immune cells then attack and destroy cells bearing these antigens. In Hashimoto's thyroiditis, the thyroid cells themselves are the target of attack by antibodies and cells of the immune system. In Graves' disease, the immune system makes antibodies that mimic the effect of TSH, causing thyroid cells to over-produce their hormones.[34]

People with one autoimmune disease are at increased risk of developing another, such as rheumatoid arthritis, systemic lupus erythematosus, type 1 diabetes, pernicious anaemia or Sjögren's syndrome. There also appears to be a genetic predisposition to developing autoimmunity; if one family member has an autoimmune disease, there is a higher-than-average risk of other family members having autoimmune diseases too (not necessarily the same disease).[35]

Although both sexes are equally likely to develop autoimmune disorders prior to puberty, after puberty females become much more prone to them than males. This is believed to be due to the higher levels of and greater fluctuations in sex hormones in women compared to men.[36]

Hashimoto's thyroiditis occurs six times more often in women than in men, while Graves' disease is 15 - 20 times more common in women. During the first trimester of pregnancy and for the first six months after the baby is born, a woman's risk of developing an autoimmune disease is the highest it will ever be in her life, because of the combined effects of the physiological and psychological stresses, immune suppression and hormonal shifts that occur during and after pregnancy.[37] Interestingly, though, in late pregnancy women with Graves' disease will often experience remission,[38] possibly because of the mild immunosuppression that normally occurs in pregnancy.
THE STRESS CONNECTION
Autoimmune disorders of all types are very commonly triggered by unusual or extreme stress. There is particularly strong evidence that Graves' disease can be precipitated by stress. Such events as changes in work conditions and/or hours, serious illness or death of a family member, marital difficulties, divorce, financial troubles and smoking (which is often an indicator of stress) are all associated with an increased risk of developing Graves' disease. There have also been significant increases in the incidence of Graves' disease during and following wars.
Hashimoto's thyroiditis, a major symptom of which is depression, may also be triggered by an episode of depression. The effects of depression on the immune system are very similar to those caused by stress.[39] Both weaken the immune system, but when the stress lifts and the immune system 'bounces back', it may bounce too high and begin to attack normal tissue.[40]

A useful analogy is to think of a bottle of soft drink (something NVNH readers may not do too often!). The drink won't 'fizz' much while it's inside the bottle, because the carbon dioxide is trapped in the liquid. But as soon as you open the cap, the carbon dioxide begins to escape - like the immune system escaping the suppression caused by stress - and the drink fizzes. If you shake the bottle before you open it, there will be a tremendous amount of fissing and the drink will spill over the sides of the bottle - like the overzealous immune system in autoimmune disease.

What seems to happen is that a stressful event triggers a mild thyroid dysfunction, which escalates into a more severe dysfunction if the stress is prolonged or another stressful event occurs. The illness that develops impairs the capacity to cope with stress, which worsens the illness, causing more stress ... and so on and on. The important message for people with thyroid disorders, and the health and medical professionals treating them, is that the anxiety, depression and other psychological symptoms associated with thyroid disease may not go away even if treatment causes thyroid hormone levels to return to normal, because these symptoms may be the cause of the thyroid imbalance, not its consequence.[41]

Stress increases the severity of the autoimmune attack on the thyroid in Graves' disease, and even if drug treatment causes complete remission, flare-ups of overactive thyroid may occur, even years later, if patients experience stress. So stress management and regular monitoring of feelings of pressure and inability to cope are absolutely vital strategies of treatment for thyroid disorders, for the prevention of recurrences in people who have been apparently successfully treated for thyroid disease in the past, for people with a genetic predisposition to thyroid disease, and for women who are pregnant or entering menopause.[42]

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Treatment of Thyroid Disorders
The old adage, 'An ounce of prevention is worth a pound of cure', could have been coined especially for thyroid disorders. Because both hypo- and hyperthyroidism have such wide-ranging and profound effects on all bodily systems, and can often go undiagnosed for months or years, severe cases may not be amenable to treatment by natural means - or natural treatments may need to be accompanied by medical ones. The earlier that natural treatments are commenced, the higher the likelihood of success without the need for medical intervention. So everyone should be alert to the signs and symptoms of thyroid disorders - as described above - in themselves and in their family and friends.

STRESS MANAGEMENT
As discussed above, stress plays a major role in triggering and perpetuating thyroid disorders, and thyroid disorders diminish people's capacity to cope with stress. Depending on personal preferences and availability of services, consider music, art, dance and movement therapy; Tai Chi; yoga; meditation; guided imagery; biofeedback; self-help groups; counselling and psychotherapy. These techniques and services can be of enormous assistance in restoring the thyroid patient's sense of control over their mind and body, improving self-esteem and coping skills, reducing anxiety and depression, restoring normal immune function and solving relationship problems generated by the thyroid imbalance.[43]

Regular aerobic exercise is also helpful for relieving tension and anxiety, but strenuous exercise should be avoided if you...
TREATMENT OF HYPOTHYROIDISM

The conventional medical treatment for hypothyroidism is synthetic thyroid hormone tablets, called **Oraxine in Australia**. The patient commences treatment on a low dose, and the dose is gradually increased until TSH and T4 levels are within normal ranges. However, almost one-third of hypothyroid patients continue to have symptoms (particularly depression) even after their hormone levels are returned to normal by drug treatment[52] – an indicator that simply replacing the 'missing' hormone does not address the cause of the hypothyroidism. As with any disease, the essential question to ask is “Why did this organ begin to malfunction in the first place?”

Many diet and lifestyle factors are implicated:

- **Iodine**, **zinc, selenium and vitamins E, A, B2, B3, B6 and C** are all essential to normal thyroid hormone synthesis.[53] Selenium deficiency increases the destructive effect of free radical attack on the thyroid gland, and when combined with iodine deficiency, it also causes mental impairment related to severe hypothyroidism. Correction of zinc deficiency in children with Down's syndrome also corrected their hypothyroidism.[54]

- Iodine supplements and iodine-rich foods (e.g., kelp and other seaweeds), however, should be approached with great caution. The Recommended Daily Intake (RDI) for iodine is only 150 mcg, and the average diet supplies over 600 mcg per day. Excess iodine actually inhibits the release of thyroid hormones[54] may trigger autoimmune attacks on the thyroid gland, and causes increased rates of thyroiditis and thyroid cancer[54] – so this is definitely not a case of ‘If a little is good, then more is better’. Excess iodine may also encourage acne.[55] If iodine deficiency is definitely present, the herbs bladderwrack and kelp may only provide ample iodine, but also help the body retain it better than supplements.[56]

- **Goitrogen-containing foods**, when eaten raw and in large quantities, and when iodine intake is low, can inhibit thyroid hormone synthesis. These foods are cabbage, cauliflower, kale, brussels sprouts, turnips, kohlrabi, rutabagas, mustard seeds, cassava root, peanuts, pine nuts, soya beans, millet, peaches, pears and spinach. Cooking usually inactivates goitrogens.[57]

- **Iron-deficiency anaemia, and depletion of iron stores without anaemia**, are both associated with lowered levels of thyroid hormones, and iron supplementation helps to restore thyroid hormone levels to normal.[58] Anaemia is diagnosed through checking for haemoglobin levels in the blood, which is done as part of a full blood examination (FBE). Low iron stores are detected through a test called ‘iron studies’. Never take iron supplements without first checking your ferritin (storage iron) and haemoglobin levels. Excess iron is extremely toxic to the body, and is believed to contribute to atherosclerosis. If blood tests do detect anaemia and low ferritin, use an organic or chelated iron supplement (not the constipating ferrous sulphate which an orthodox doctor will prescribe) and boost your intake of iron-rich foods, such as green leafy vegetables and juice made from them, legumes, dried apricots, nuts and seeds (eaten with vitamin C-rich foods to enhance absorption).

- **Fluoride** in drinking water and toothpaste may decrease thyroid function. In fact, fluoride compounds were formerly used as antithyroid drugs in hyperthyroidism.[59]

WHERE THERE'S A WILL ...

Many subscribers and other readers who have benefited by this magazine or who are inspired by our principles may wish to support our work further. One way of doing this is by a bequest through your will to the *Natural Health Society of Australia (NSW)* Inc. or to the *Australian Vegetarian Society* or both.

Should you consider doing this, the following wording for a will may be helpful:

"I bequeath to the ____________________________ (enter the name of the Society) ABN ______________, the sum of $______________________ (or part or all of residue of Estate) free of all duties to be applied for the purposes of the Society (or as directed by the donor) and the receipt of the Secretary of the Society shall be sufficient discharge for the same". It may be wise to consult a solicitor to ensure that the bequest is valid.

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Autumn 2004
Oestrogen: A most intriguing relationship exists between oestrogen and thyroid hormone. As previously mentioned, thyroid disorders are far more common in women, whose oestrogen levels are much higher than men’s. Hypothyroid women who are being treated with thyroxine, often need a higher dose of thyroxine to maintain normal levels of TSH and T4 if they begin taking oestrogen replacement therapy for menopausal symptoms.[56]

This tends to corroborate Dr John Lee’s observation that women suffering from what he calls ‘oestrogen dominance syndrome’ are more likely to be hypothyroid.[57] Oestrogen dominance syndrome is described by Lee as “excess oestrogen [when] unopposed or unbalanced by progesterone”. It only occurs in women who are perimenopausal; taking high-oestrogen oral contraceptives or oestrogen replacement therapy; postmenopausal and overweight; and after hysterectomy; or exposed to xenoestrogens.[62] Lee states that thyroid gland function is suppressed by oestrogen, and that oestrogen may interfere with the binding of thyroid hormones to their receptors in cells.[63]

Many of the symptoms commonly ascribed to menopause, such as fatigue, depression, weight gain and memory loss, are also symptoms of hypothyroidism. It is well known that women living on the typical high-fat, high-animal-protein diet suffer far more from menopausal symptoms than women living on plant-based diets in traditional cultures. For example, 38% of American women undergoing menopause experience fatigue, whereas only 6% of Japanese women do; 30% of American women complain of irritability compared to 12% of Japanese women; and depression and insomnia are three times as common in American women.[64] Is it merely a coincidence that Western women have dramatically higher oestrogen levels both pre- and post-menopausally than women on traditional plant-based diets?[65] Or could it be that the Western diet and sedentary lifestyle, by elevating levels of oestrogen, set the stage for hypothyroidism?[66]

My own clinical experience suggests that measures that reduce oestrogen levels, such as weight loss, regular exercise and a vegetarian diet, can make it possible for hypothyroid women to reduce or even discontinue thyroid replacement therapy (see ‘Case Study’ below).

However, no one currently taking Oroxine or any other prescribed medication should stop taking it or alter the dose without first consulting a supportive doctor.

TREATMENT OF HYPERTHYROIDISM

Medical treatment for thyroid overactivity involves antithyroid drugs which inhibit the production of thyroid hormones and suppress the autoimmune attack on the thyroid; destruction of much of the thyroid using radioactive iodine; or surgical removal of part of the thyroid. None of these three methods addresses the cause of the hyperthyroid condition; all of them increase the likelihood of developing hypothyroidism down the line, and all may fail to resolve the mental and emotional symptoms of hypothyroidism, such as excessive anger, depression, anxiety, impatience and impaired memory, attention, planning and productivity, even if they are successful in normalising hormone levels.[60] Dealing with autoimmune stress are the primary considerations (see above).

Adequate intake of antioxidants is crucial because thyroid overactivity increases metabolism, which increases oxygen consumption, which increases free radical production. All bodily tissues are damaged by excessive free radical activity, including the brain. Hyperthyroidism increases the risk of dementia because of the damage inflicted by free radicals on the parts of the brain necessary for normal thinking processes. Supplementation with carotenoids, vitamin C, vitamin E, zinc and glutamate helps to quench free radicals and restore damaged tissues, and minimises the damage done to the thyroid by autoimmune attacks.[67]

A nutrient-dense diet (i.e., no refined or high-fat foods except for raw nuts and seeds) is needed because the acceleration of metabolic processes depletes all nutrients, while also causing malabsorption, which further diminishes nutrition.

Avoid caffeine, nicotine and alcohol, which increase caloric expenditure.[68] Herbs: the constituents of Melissa officinalis (lemon balm) reduce the activity of the abnormal antibodies that cause thyroid overactivity in Graves’ disease. Essential oil of thyme may also reduce thyroid activity.[69]

CASE STUDY – HYPOTHYROIDISM

Pauline, a 55-year-old American woman who was visiting family in Australia, originally came to see me for high blood pressure. She was taking a beta blocker called Carvea for it, and was also on Synthroid (called Oroxine in Australia) to treat her hypothyroidism. She reported that her blood pressure, which she measured on a home monitor, rose to as high as 180/120 in spite of the anti-hypertensive drug.

I gave Pauline detailed dietary and lifestyle guidance, including vegetarian diet, regular moderate exercise and stress management advice, and asked her to continue monitoring her blood pressure regularly so that we would know when she could begin to reduce her blood pressure medication. Pauline followed my advice to the letter. At her next visit, two weeks later, she reported that her blood pressure had dropped to 120/80 after just three days on the program. By her third visit, her blood pressure had decreased even further and she had also lost 5 kg. She had only six Carvea pills left and was happy to begin phasing them out. She did so over the next week, and her blood pressure remained at its new lower level.

She found that it only became elevated after she went to an exciting church meeting! Some months later, Pauline rang from the US to tell me that she had begun feeling very agitated, couldn’t sleep at night, and was experiencing palpitations. I couldn’t make sense of her symptoms until I went back over her file and recalled she was on Synthroid. She confirmed that she was still taking the same dose of this drug. Her symptoms sounded like hypothyroidism, and I suspected that she would need to reduce her dose of Synthroid. I advised her to see her doctor for thyroid function tests, which she did, and these revealed an excessive level of thyroid hormones. Her doctor advised her to stop taking Synthroid altogether!

This was a truly remarkable outcome, given that people who go on thyroid hormone replacement are told they will be on it for life. Pauline was unclear about the exact nature of her hypothyroidism, but she almost certainly had Hashimoto’s thyroiditis. It seems quite clear that the vegetarian diet and stress management techniques that I prescribed for her high blood pressure also resolved her autoimmune thyroid condition.

Measures which restore health almost always have positive ‘side-effects’ such as this, whereas treatments that merely address disease symptoms almost invariably have negative side-effects.

References continued on page 79

PLEASE PASS IT ON!

When you have finished reading New Vegetarian and Natural Health, why not share it with someone else? You could give it to a friend or workmate, leave it at the dentist, doctor, gym or hairdresser, or leave it at your local library or reading room. Please help the mag to get around so that others may benefit from the information.

Robyn Chuter, ND, Grad Dip Couns, is a naturopath and counsellor practising in Cronulla, NSW. She can be contacted on 02 9542 6698.

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