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Fatigue Part 2

Special points of interest:

- > Features the important supplements to help overcoming fatigue.
- > Magnesium, N Aceyl carnitine, Co Q 10, Lipoic acid.
- > Fish oils and antioxidants

Are you sick and tired of being sick and tired

In last month issue we covered the lifestyle and dietary changes to help improve fatigue. This month the focus is on supplements to help fatigue and other underlying causes of fatigue.

Do you jump out of bed every day with a smile and excitement about your day? If you have to force yourself up and drag yourself through the day then you may be fatigued. With our stressful busy lives, most people experience tiredness at some time but usually this resolves with rest and relaxation. For an increasing number of people however, persis-

tent unremitting tiredness becomes a major problem. Many people often consider their low energy levels to be normal.

Fatigue is a common condition in Australia and New Zealand and is often misunderstood or even dismissed. This may occur if there is no identifiable 'cause' from diagnostic procedures, such as blood tests, but that doesn't mean you shouldn't want to strive to be your best.

Fatigue occurs if the mechanisms which provide the body with the energy to function are not

working effectively. The result is everything slows down, both physically and mentally, and functioning normally becomes harder and harder. The resulting low energy and enthusiasm affects all facets of life – relationships, performance at work, chance of driving accidents, desire to eat well and exercise – to name a few.

Working with your practitioner Tracey Lee Morley, to perform a 'tune up' and get your energy producing mechanisms working again is one of the best ways to improve both the quality and quantity of your life.

Important nutrients to help overcome fatigue

Some helpful nutrients which have been scientifically researched and proven to assist the mitochondria to produce energy effectively (see last issue) are:
Magnesium
Carnitine
Coenzyme Q10

Lipoic Aid
Omega 3 oils
Antioxidants

Deficiencies in these nutrients can lead to persistent fatigue. Unless the deficiency is corrected it may prove difficult to overcome the state of low energy

and motivation. Your Practitioner Tracey Lee Morley can assist you to decide which of these nutrients you may be deficient in.

Turn over to find out some of these common deficient signs and symptoms.

Magnesium; the lead supplement for fatigue

Magnesium is needed everywhere in the body, in fact in over 300 processes in the body depend on magnesium. With regards to energy production, it is important for the conversion of sugars, fats and proteins to energy. Magnesium deficiency is very common, with over half the Australian and New Zealand population having a deficiency. One of the factors that cause this deficiency is the increase in

the intake of processed foods and refined grains as well as a decrease in green vegetables, which are a good source of this crucial mineral.

Magnesium may particularly useful when fatigue is accompanied by:

- Muscle aches, pains, cramps and spasms
- Mood changes, irritability, poor concentration

- Stress – mental or physical
- Tension headaches
- Strenuous exercise
- Regular sweating
- Visual fatigue induced by computer screens
- Restlessness and anxiety
- Insomnia
- Tremors
- Vertigo

Do you have fatigue, mood swings, muscle aches and pains? Then you may be in the 50% of Australians who are deficient in magnesium.

N Aceyl Carnitine for fatigue and poor memory and concentration

Carnitine plays an important role in fat metabolism and energy production. It acts by transporting dietary fats directly into the mitochondria for breakdown and energy produc-

tion. Carnitine may support energy production if fatigue is accompanied by:

- Poor memory and concentration
- Mental fatigue

- Neuropathy numbness and abnormal sensations
- High fat diet
- Strenuous exercise
- Vegetarian or vegan diets



Coenzyme Q10; for fatigue and a healthy heart

Small amounts of Coenzyme Q10 are obtained from eating meat and seafood, but the majority of your supply is made within the body.

Although nearly all body cells make it, coenzyme Q10 concentrates in the muscles, heart, kidneys, liver, and pancreas with about half of the body's

stores in the mitochondria of these cells.

Coenzyme Q10 may be helpful in the management of fatigue via the following actions. It may help:

- Support cardiovascular and heart health.
- Enhance cellular energy production.
- Minimise the affects of

high cholesterol and/or cholesterol lowering medications.

- Maintain healthy immune function, therefore increasing the ability to combat illness.
- Maintain stamina and endurance.
- Note on dosage; this is one supplement I see many people take the incorrect form of or a too low a dose when self prescribed.

Lipoic Acid for fatigue and overweight or blood sugar imbalances

Lipoic Acid is important for the correct transport and conversion of carbohydrates into energy whilst protecting the mitochondria from damage (as it is a potent antioxidant).

Lipoic Acid improves the way the body deals with carbohydrates and, therefore, is particularly useful for people that have problems with blood sugar

metabolism, or are overweight – particularly if the weight is stored around the middle (apple shaped people).

Lipoic Acid may improve general wellbeing and fatigue by:

Supporting the use of sugar and carbohydrates from the diet

Assisting in blood circulation especially in hands, feet and legs

Maintaining eye health
Assisting in the maintenance of a healthy nervous system

Supporting healthy liver function

Enhancing cellular energy production

Fish oils for fatigue and reduces inflammation

Omega 3 Oils, or fish oils, are vital for the integrity and stability of every cell membrane in the body – including the all important mitochondria. Naturally if the cell membranes are damaged the health and function of the cells is decreased. Omega 3 oils also stimulate the growth and size of the mitochondria along with helping lower stress levels, which will contribute to the overall energy levels.

The majority of Western diets are low in omega 3 oils as a result of the increase of processed and refined foods far overtaking the use of fresh foods, including fish which are a source of these ‘good oils’. The best sources of omega 3 oils are the ‘fatty fish’ tuna, salmon, mackerel and herring – which should be eaten several times per week.

Even when people are trying to eat well they can sometimes create an imbalance in the different types of ‘good oils’ in the diet. This can result in an increased amount of inflammation in the body resulting in fatigue and pain.

The following table separates the ‘good oils’ into the omega 3 and omega 6. Ultimately a good goal should be that for every 4 serves of the foods listed in omega 6 oils list it is necessary to have 1 serve of omega 3 oils – a ratio of 4 to 1 (or even lower would be best!). Currently it is suggested that the Western diet has a ratio of 10 to 1 or higher.

Many people don’t achieve this goal, and a concentrated, purified fish oil supplement can be very helpful.

Omega 3 oils may be beneficial for decreasing fatigue by:

- Supporting cardiovascular and heart health
- Increasing the creation of some important anti-inflammatory messengers in the body
- Maximising the structural fluidity of cell membranes throughout the body – therefore may be helpful in reducing inflammation and swelling
- Maintaining healthy cholesterol levels
- Reducing early morning stiffness associated with arthritis
- Increasing circulation especially to the hands and feet
- Supporting eye health

“For every 4 serves of foods listed in the omega 6 oil list you need to have 1 serve (or more) of the omega 3 oils i.e. at least a 4 to 1 ratio”

<u>Omega 6</u>	<u>Omega 3</u>
Cereals	Fatty fish
Wholegrains	Nuts
Vegetable oils	Linseeds
Eggs	
Chicken	



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Examples of common generators of 'free radicals' in diet and lifestyle include:

Alcohol
Cigarette Smoke
Pesticides on foods
Air pollution
Car exhaust
Gases found in hairsprays

Powerful antioxidants include:

Vitis Vinifera (Grape seed)
Vitamin A
Vitamin C
Vitamin E
Selenium
Camellia sinensis (Green tea)
Zinc
Polygonum cuspidatum (Resveratrol)

Antioxidants

Antioxidants may assist in improving general wellbeing and, in turn, fatigue by:

- Enhancing and maintaining immune function thereby decreasing the susceptibility of infection
- Supporting a healthy cardiovascular system
- Protecting against cell damage.

One of the reasons people become excessively fatigued is due to the damage to the delicate mitochondria. Damage frequently occurs when compo-

nents of our food and/or lifestyle stimulate the formation of 'free radicals' which create 'oxidants'. We have natural systems in the body to deal with a small amount of the oxidants, but when the systems are overloaded the oxidants build up and become excessive, they have the potential to harm every cell in the body. Interestingly, the antioxidants can set off a chain reaction that leads to an ever increasing productions of these oxidants, creating more and more damage as they go. By

including 'antioxidants' you provide the tool to mop up these 'free radicals' and minimise their dangerous effects.

Above is a list of the lifestyle and environment factors that increase our need for antioxidants (i.e. they produce substances called free radicals that can cause cell damage).

Also above is a list of the most important antioxidant nutrients.

Next Newsletter Oct

Fatigue Part 3

The underlying causes for fatigue.