ne many Faces of Fatigue by Tessa Jupp RN

Fatigue - common to many polio survivors - and often described as "hitting the wall", is defined in the dictionary as "weariness" or "term used in physiological experiments on muscle to denote diminishing reaction to stimulus applied."- Nurses' Dictionary

I suppose the latter can explain the muscle fatigue, that occurs when we do too much with a weaker muscle and it can't keep up. I have had polio people say to me that they were walking down the corridor and they kept moving but their polio leg "got left behind" and didn't come with them! And so they had to stop or slow down.

Lack of endurance is one of the symptoms, we list for Late Effects of Polio - the inability to keep on going at a normal rate thru' a number of repetitive movements. It is not that we can't do it - but that we can't KEEP ON DOING IT!

This is the fatigue Jega, at our Late Effects Clinic is talking about when she says don't use a particular muscle to the level of fatigue - stop before it gets tired. She is not talking about generalised fatigue - whole body weariness.

CARNITINE will help with both of these sorts of fatigue. It helps to keep a high level of fuel available in the blood for polio muscles that are working overtime just to do ordinary things like walking, working and all the other things we expect us to do all day. It allows energy for the muscle to be able to work and to keep working.

MAGNESIUM is also part of muscle action as it is **DEHYDRATION**. If we don't get enough fluid, needed for the relaxation phase. Calcium is need preferably water, the body will struggle and this for muscle contraction. Magnesium turns the movement off by 'booting out' the calcium so it can work again and not stay 'seized up'. (We usually have enough calcium - despite what we are told about needing more calcium. Magnesium is more important.)

There are many other aspects of keeping our bodies functioning, and blaming it all on polio may not be fair. We may have a number of other different sources of fatigue adding to the load and we may be able to do something about them if we yourself regular. take a sensible look at the causes of fatique.

SLEEP. The obvious answer for tiredness is to make sure we get enough sleep and to get good quality sleep. While we are asleep our nutrient stores are restocked so this is important. Make enough "down time" - at



least 8 hours if possible. If you have problems getting to sleep because you keep thinking about things, ie a racing mind, taking some extra chelated zinc tablets 220mg half an hour before bed (and some magnesium) will help you nod off. Eliminating pain is essential and investigate sleep apnoea if this is happening too. If sleep is a problem, this is well covered in our PPS book or ring me to discuss.

PAIN - the same applies to pain. Constant pain is very fatiguing. It is one of the body's warning systems. Do something about it. There are a number of ways to deal with it - so ask for help. I often get people coming in to me as a last resort, having done the rounds of doctors and such. When we are able to fix it, they then say that they should have come to me first Often extra supplements of magnesium, manganese, B6, B12, boron, gelatine, fish oils or carnitine can alleviate or lessen pain. Taking extra Vitamin C helps to raise the pain threshold as well as being a natural anti-inflammatory.

EXERCISE - both doing too much and doing too little can be fatiguing. We need to find our own happy medium. Jega can help sort you out there, at the Late Effects Clinic. Get a referral from your GP to Dr Dade Fletcher at LEDC and send it to me at PPNWA -(not RPRH). I can get you a faster appointment.

STRESS is fatiguing. It saps you of mental and physical energy. Try to resolve stress. Taking some extra glutamine will also help if you can't get rid of it. And remember, when women are under stress, the need for iodine can double or triple.

adds to fatigue. Waiting until we get thirsty is too late. Many bodily functions and diseases are worsened by dehydration. Drink more water.

CONSTIPATION. Feeling full, bloated, heavy and uncomfortable is not conducive to energy expenditure. We should "go" everyday as toxins reabsorbed from the gut can make us tired and lethargic as well as causing bowel cancer. Take enough magnesium and Vit C twice a day to keep

EATING. We can get tired because we haven't eaten - hungry, no energy left, or because we have eaten foods that don't give us proper energy, like sweets, fast and processed foods. We can also get tired if a food we have eaten doesn't agree with us. Our body can't deal with it. If I eat bread, within about 15 minutes I can be so tired I struggle to keep my eyes open and would give anything to be able to lie down and have a nap.

This feeling can last a few hours as my body struggles with this food. If I take some extra acid - like lemon juice, I can recover more quickly from this mistake. Extra acid helps with absorption as well and helps with the problems of replace all your red blood cells. leaky gut and malabsorption syndromes.

and as we are getting older it may not be working as well as it should. Fatty Liver, gall stones, alcohol etc all take their toll. Take extra taurine and maybe add lemon juice to clean out the liver or some other liver detox program. It may help with this type of fatigue.



THYROID - we more or less

covered with iodine. The thyroid is the power house that gets energy working all over the body. Low iodine levels can zap your energy and make you feel tired, edgy and worn out. Low iodine levels can even prevent you from getting a good night's sleep. It is worth trying painting that extra iodine on the skin, eating more meat or taking tyrosine and selenium. Get your thyroid checked out by your GP. You may still need to take thyroxine. To reactivate the thyroid gland, tyrosine, iodine, zinc and selenium are needed so make sure that foods containing these nutrients are included in your diet or try supplementing with them.

DIABETES - again insulin is part of energy production and if this system is not working properly you will not have enough energy. See your GP to check your blood glucose levels and checkout our previous articles on how to lower blood sugar, blood pressure etc. Also don't forget that iodine stabilises blood glucose levels.

The same applies to **Kidney Disease**, **Heart** Disease, Shortness of Breath, Menopause, Depression, Fibromyalgia, Chronic Fatigue **Syndrome etc.** Check these out and get them sorted by you GP if necessary. We are all still likely to develop any of the other diseases of aging, high blood pressure, cancer, MS, Parkinson's and so on. They can all be tiring as the body will be under stress.

ANAEMIA - Shortness of breath can be part of this too. Anaemia can be caused by **low** haemoglobin, low iron or low ferritin levels causing not enough red blood cells (rbc) to transport oxygen around the body. If you are taking iron and it doesn't seem to be working. trv eliminating all legumes and lentils from your diet for a month or so and see if that helps. Legumes include peas, broad beans, 3 or 4 bean mixes,

baked beans, split pea soup, peanuts, coffee, soya and possibly chocolate. Legumes can clump rbc's so they don't work and the body then destroys them in the spleen. It takes 6 weeks to

Haemochromatosis - ie too much iron can also LIVER DISEASE. The liver is our great detoxifier make you tired. Don't assume you are low - get tested as liver damage can occur if iron too high.

> Pernicious anaemia - low B12 levels can have a similar effect. Without enough B12 the rbc's can't split into smaller normal size cells and larger rbc don't carry enough oxygen or get thru' the very small capillaries, so fatigue. **B12 injections are best.**

> POTASSIUM - low potassium levels can also cause fatigue. The feeling is - complete loss of reserve ie no energy left to fall back on, extreme exhaustion, dizziness, heat drains you of energy and finally palpitations as the heart struggles to cope. Potassium and magnesium are highest inside the body cells and energy can't be produced without that powerhouse working properly. With low potassium, sodium is not kept in check, excess water enters the cell and we get swelling. waterlogged inefficient tissues. Since January 2007, you now need a doctor's prescription to buy Slow-K. NB People on potassium-sparing blood pressure tablets can't take Slow-K and - if you are taking potassium and get palpitations, stop it immediately - you have enough. Potassium levels can be ordered by your doctor and the results should be in the top half of the normal range to have adequate levels. When magnesium is low, potassium can't work properly. So just correcting your magnesium may be sufficient.

> **VITAMIN C** - low Vit C used to be called scurvy. We still have it but no one recognises it because we think we got rid of scurvy. The Nurses' Dictionary says of scurvy: " Clinical features include fatigue and haemorrhage . . . may take form of oozing at the gums or large bruises. Tiny bleeding spots on skin around hair follicles are characteristic." So take more Vit C! Twice a day, according to blood type.

Molybdenum - Candida. Research by polio survivor, Stephen Cooter PhD USA in 1994,

showed that taking molybdenum can turn the toxins of candida into energy, thus getting rid of this type of fatique and other candida symptoms.

There may be other causes of fatigue - but I think this will do for now. Do send in any other thoughts on fatigue for the next newsletter.

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