Live Well With Chronic Illness
Health Coaching

Nutrition for Fatigue

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QUALIFICATIONS:

- ✓ Naturopathic Nutrition and Health Coaching: *Diploma-College of Naturopathic Medicine (CNM)*
- ✓ Hypnotherapy and Psychotherapy: *Mindworks*
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MEMBERSHIPS:

- ✓ National Council for Integrative Psychotherapists (NCIP)
- ✓ UK & International Health Coaching Association(UKIHCA)
- ✓ The Association of Naturopathic Practitioners (ANP)

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Specialises in Lyme Disease, MCAS, Dysautonomia and Chronic Pain

Nutrition for Fatigue

It’s important to acknowledge that dietary changes are not a ‘magic wand’ for fatigue conditions

They are not a ‘cure’

There are many, complex medical causes for fatigue conditions, and what helps one person won’t necessarily help another

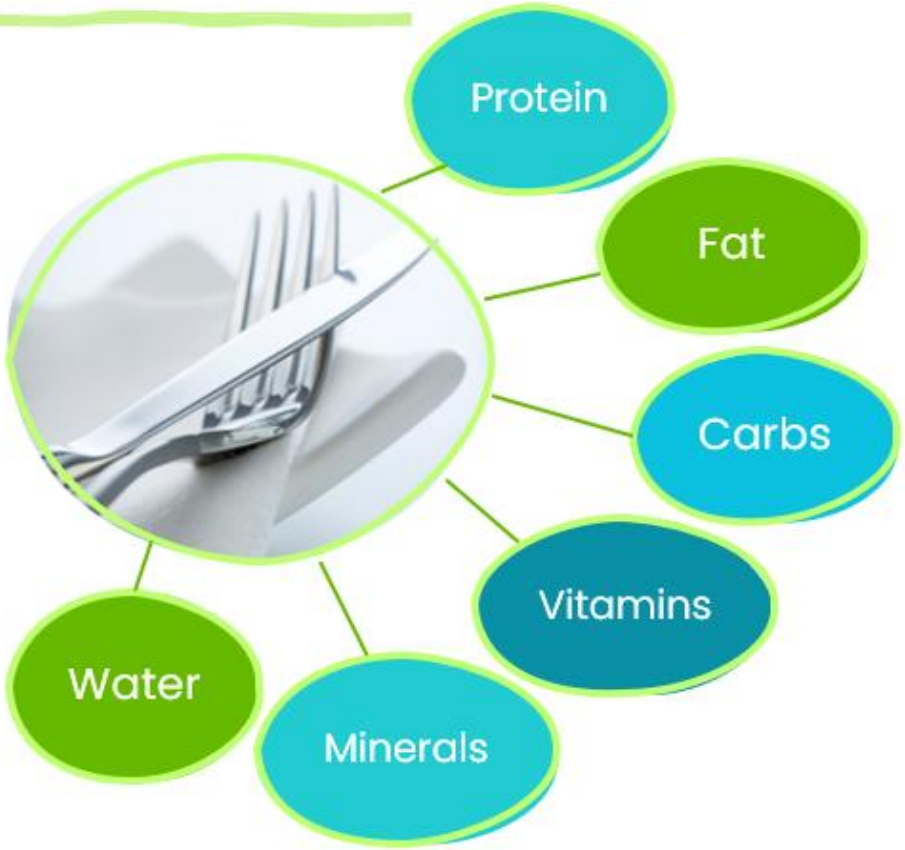
There is no ‘one answer’ for fatigue conditions

However, I found on my own health journey that what I ate made a big impact on my symptoms, and I’ve learned that there are lots of ways in which diet can impact on fatigue.

Making small changes can, sometimes, make a big different in how we feel on a day-to-day basis

This is NOT about blame – It’s about empowerment.

What is Nutrition?



Food:

Any nutritious substance that people or animals eat or drink or plants absorb that maintains life and growth.

Nutrient:

A substance that provides nourishment essential for the maintenance of life and growth.

Naturopathic Nutrition:

Food as Medicine. Looking at the medicinal properties of food and understanding the ways in what we eat can either keep us healthy or make us sick.
Looking at each person as an individual, with personalised dietary requirements.

Macro & Micro Nutrients

Our bodies don't make these substances – we get them from food.

Macro Nutrients

- Proteins
- Fats
- Carbohydrates

Micro Nutrients

- Vitamins
- Minerals

"Your body and brain are entirely made from molecules derived from food, air and water".

Patrick Holford

If we don't eat them, we don't get them! And we become malnourished.

What is Fatigue?

The medical definition is

‘Tiredness that is not relieved by sleep’

However, people who experience fatigue-related conditions also experience a wide range of additional symptoms along with fatigue

Poor sleep
Pain
Low mood
Anxiety
IBS
Neurological symptoms – headache, neuropathy, weakness
Food intolerances
Allergies
Chemical sensitivity

Image by Gerd Altmann from Pixabay

What is Fatigue?

Conditions that include fatigue as one of their symptoms

ME/CFS
Long Covid
Fibromyalgia
MCAS
Dysautonomia/POTS
Lyme Disease
Cancer
Parkinson's
Multiple Sclerosis
Cancer
Stroke
Brain injury
Depression
Hypothyroidism/Hashimoto’s
Autoimmune conditions- IBD, Lupus, Rheumatoid Arthritis

What Causes Fatigue?

Nutrient deficiencies
Blood sugar issues
Mitochondrial dysfunction
Inflammation
Food intolerances
Dehydration
Underactive thyroid
Gut dysbiosis
Post-Viral Illness
Neurological injury – stroke, brain injury
Neurological dysfunction
Poor sleep – sleep apnoea, wakeful sleep
Hormonal imbalance
Cancer Treatment
Hypoxia – lack of oxygen
Infections – bacterial or fungal overgrowth
Mould illness
Chronic pain
Mental/emotional distress/trauma

Nat Rev Dis Primers. 2015 Aug 13;1:15022.
Neuroscience. 2016 Dec 3;338:114-129

Research on Diet for Fatigue

Research into links between fatigue conditions and dietary changes indicate some people find their symptoms improved after:

- Reducing Gluten
- Eating a generally healthy diet – avoiding processed foods, increasing fruit and vegetables
- Increasing consumption of antioxidant foods
- Avoiding food additives like aspartame (artificial sweeteners) and Monosodium Glutamate (MSG) which is often added to processed foods. Both can have a toxic effect on the nervous system

- 2014 survey by Action for ME found 51% had tried making dietary changes to help them manage their symptoms. Of these, 72% said it was helpful or very helpful

- **Why might that be?**

https://www.actionforme.org.uk/get-information/managing-your-symptoms/diet-and-nutrition/

How We Make Energy

Glucose is the body's main source of energy

If blood glucose levels drop, it causes fatigue, shakiness, weakness, brain fog.

Glucose is obtained from foods containing carbohydrates

Complex carbs are better than refined carbs for maintaining steady energy levels

Low blood sugar causes fatigue

Low blood sugar, or poor insulin function (diabetes or insulin resistance) can both cause fatigue as the glucose isn't getting into the cells.

Image by congerdesign from Pixabay

Glucose for Energy

Refined carbs

Broken down very quickly,
Spike in blood glucose
Spike in insulin to get the glucose into the cell.
But then blood sugar levels drop again very quickly.

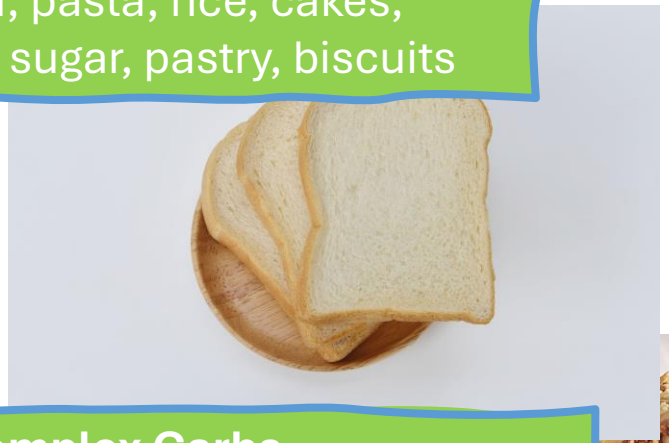
This can cause a ‘roller coaster’ effect, where we get highs and lows of energy

Complex carbs

Broken down much more slowly,
Their glucose ‘load’ is released slowly too
The body gets a steady supply of energy.

Eating regular meals of complex carbs is the main way that blood sugar levels are maintained, and healthy bodies obtain a steady supply of glucose for energy-production.

Refined Carbs - like white bread, pasta, rice, cakes, white sugar, pastry, biscuits



Complex Carbs
like brown rice, brown bread, brown pasta, vegetable starches, seeds, nuts, and pulses

Image by danastajic016 from Pixabay

Mitochondria - the body's energy factory

Within almost every cell in the body there are mitochondria

These organelles use oxygen and glucose to produce Adenosine Triphosphate – ATP

When we talk about 'energy' in the context of the body, we are talking about ATP.

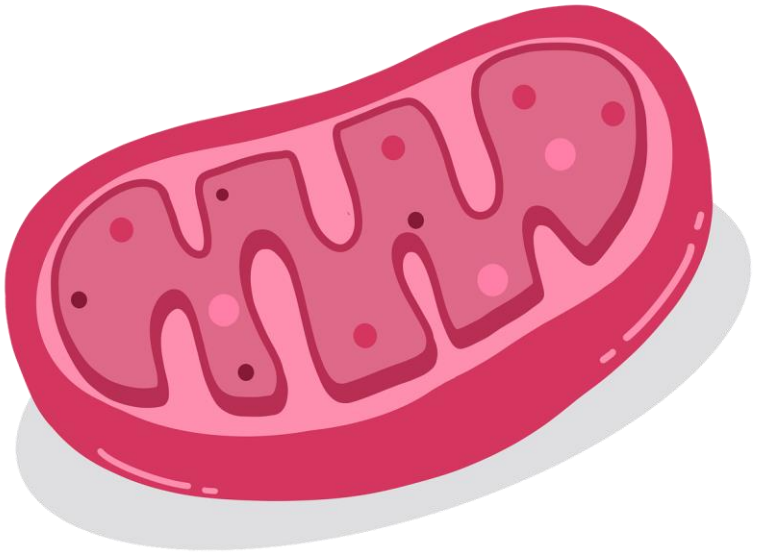
ATP is required for every single bodily function

If our mitochondria are not functioning well, we are not going to be making enough ATP

Mitochondria can be affected by

Infections – viral/bacterial/fungal
Stress
Toxin exposure
Trauma
Oxidative stress

There are certain nutrients that we can eat to support our mitochondrial health



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B Vitamins

All of the B Vitamins are essential to support energy production.
A deficiency in B Vitamins often leads to people experiencing severe fatigue, as without B vitamins, the Mitochondria can't function and create ATP

Foods that are rich in B Vitamins

Fish like salmon, tuna and trout
Liver and organ meats
Eggs
Shellfish like oysters, clams and mussels
Poultry - Chicken and turkey
Dairy - Milk and yoghurt

Leafy green vegetables
Pulses like chickpeas, lentils, peas, pinto beans, kidney beans etc
Nutritional yeast
Seeds - Sunflower seeds, pumpkin seeds, linseeds
Avocado

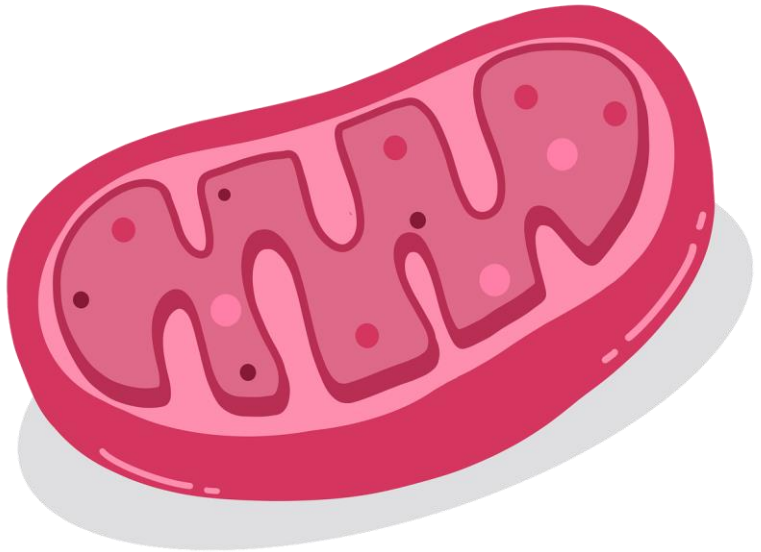


Image by Sieglinde Sterbling from Pixabay

CoQ10

Co-Enzyme Q10 is essential for Mitochondrial function

It is required for the production of ATP
It also acts as an anti-oxidant, protecting mitochondria from damage from oxidative stress (more on this later!)

As well as combating fatigue, CoQ10 also has benefits for heart health, skin health, lung health, brain health, migraine and cancer prevention

Reduced levels of CoQ10 can happen because of

- Ageing
- Oxidative stress
- Toxin exposure
- Mitochondrial damage
- Disease
- Statins
- Nutrition deficiencies

Foods rich in CoQ10
- **Liver and other organ meats**
- **Pork, beef and chicken**
- **Fish like** trout, herring, mackerel, and sardines
- **Legumes:** soybeans, lentils, and peanuts
- **Nuts and seeds:** sesame seeds and pistachios

Image by Sieglinde Sterbling from Pixabay

Magnesium

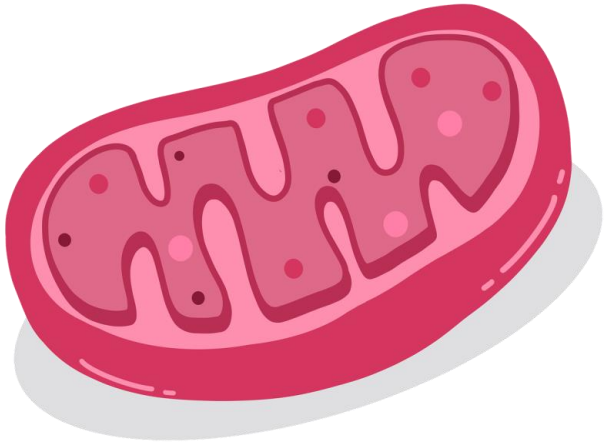
Magnesium is required for over 600 different functions in the body, including the production of ATP in the mitochondria

Without enough magnesium, we can't make DNA, we can't move our muscles, we can't regulate our blood pressure, we can't send signals through our nerves, our brain doesn't work properly, our heart doesn't work properly, and many, many other things.

Fatigue can be caused by lack of magnesium.
Imagine the effect that not having enough magnesium would have on all of those functions, and how that would impact our overall health.

Between 60-70% of the US population is not meeting RDA in their diet. Likely to be similar in UK

https://www.healthline.com/nutrition/what-does-magnesium-do
https://www.healthline.com/nutrition/magnesium-deficiency-symptoms



Foods rich in Magnesium
- **Dark chocolate**
- **Avocado**
- **Fish like** trout, herring, mackerel, and sardines
- **Legumes:** beans, peas, lentils
- **Nuts and seeds**
- **Wholegrains**
- **Dark green leafy greens**
- **Bananas**

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Vitamin D

Vitamin D is also essential for mitochondria to function well

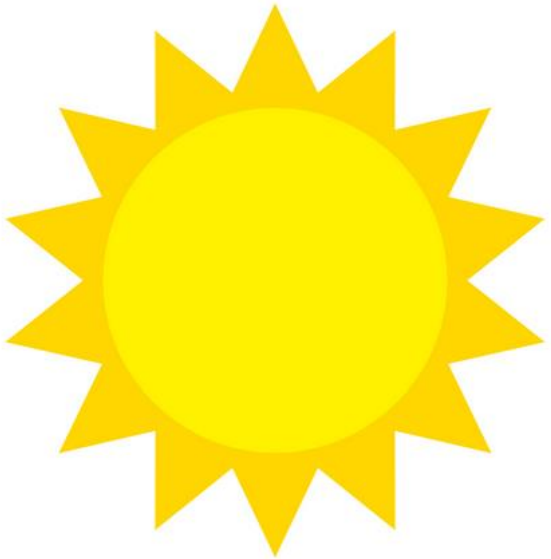
Fatigue is a symptom of vitamin D deficiency.

Many people living in the Western Hemisphere are deficient in Vitamin D, especially during the winter months

A 2015 study of female nurses in Iran found a connection between low vitamin D levels and self-reported fatigue. 89% of the participants were then found to be deficient.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4954906/

A study of people with Fibromyalgia found they all had lower levels of Vitamin D than 'healthy' controls

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5665736/



Sources of vitamin D
Sunlight Exposure to at least 15 minutes of sunlight per day
Fatty fish like salmon, mackerel, herring
Egg yolks
Dairy yoghurts
Liver
Mushrooms

Image by Sieglinde Sterbling from Pixabay

Antioxidants

Free Radicals damage our mitochondria and prevent us from making energy efficiently

Free Radicals do this by creating ‘oxidative stress’ on the body

Unstable molecules that ‘steal’ electrons from other cells, making them unstable.

Free Radical Exposure is caused by

- Natural metabolic processes like detoxification and energy-production
- Exposure to viral infections
- Exposure to toxins
- Cigarette and vape smoke
- Processed foods
- Radiation

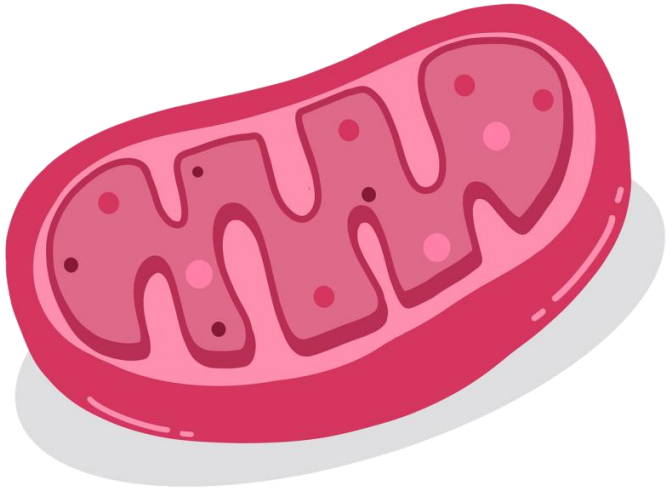


Image by Sieglinde Sterbling from Pixabay

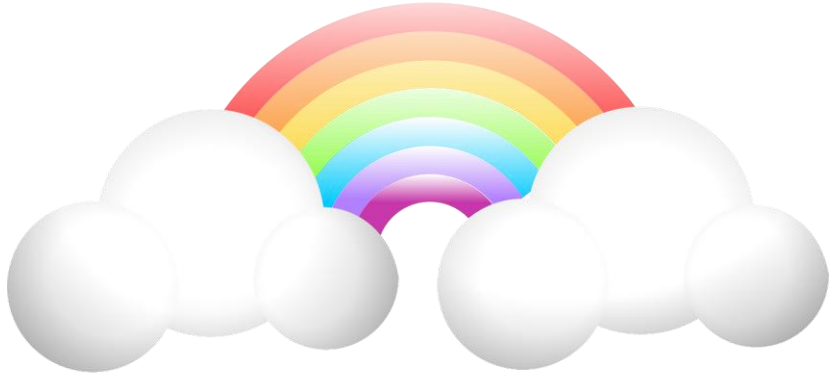
Antioxidants

Antioxidants are natural components in some foods that stabilise the unstable free radicals and neutralise them.

The more anti-oxidants we consume the less damage from free radicals, the more our mitochondria are protected and can make energy.

- Fruit and Vegetables contain antioxidant vitamins (A, E and C and CoQ10) and phytonutrients
- Chemicals found in plants that are anti-oxidants and prevent oxidative damage, and also prevent inflammation

Eating lots of fruit and vegetables
protect the mitochondria
from damage from free radicals



Eat a rainbow!

- **Green fruits** and vegetables – chlorophyll
- **Red fruits** and vegetables – lycopene
- **Orange fruits** and vegetables – beta carotene
- **Blue fruits** and vegetables – anthocyanins
- **White fruits** and vegetables – sulphur

Pro-Inflammatory Foods

Inflammation is exhausting. It consumes a lot of energy to produce inflammation all the time.

Some foods provoke inflammation
These foods worsen fatigue and increase oxidative stress in the body

Trans fats, heated fats, hydrogenated fats
Processed foods
Processed meats
Sugar
Refined carbs – white bread, pasta, rice, cakes etc
Gluten
Dairy – for some people
Fizzy drinks

Artificial sweeteners like Aspartame

Food Intolerances

Common Foods that can trigger inflammation

- Gluten
- Grains
- Dairy
- Eggs
- Additives – E Numbers
- Histamine
- Nightshades
- Oxalates
- Lectins
- Salicylates

Not necessarily bowel symptoms

Can cause systemic issues, fatigue, IBS, respiratory issues, joint pain, skin issues, neurological issues, sleep issues, brain fog, depression, anxiety.

How to reduce Food Intolerances

Keep a food diary and note symptoms

Reactions can be delayed by 48 hours

Look for patterns

Trial elimination diets, with expert guidance

Food intolerance testing – expensive and can be unreliable, seek expert advice

Kinesiology – using muscle testing – can help identify food intolerances

Seek nutritional advice if you suspect you may have food intolerances
IMPORTANT NOT TO CUT OUT FOODS UNECESSARILY

Healing the gut with pre and probiotic foods can help reduce food intolerance

Water

It may sound really obvious, but studies show that dehydration makes fatigue much worse.

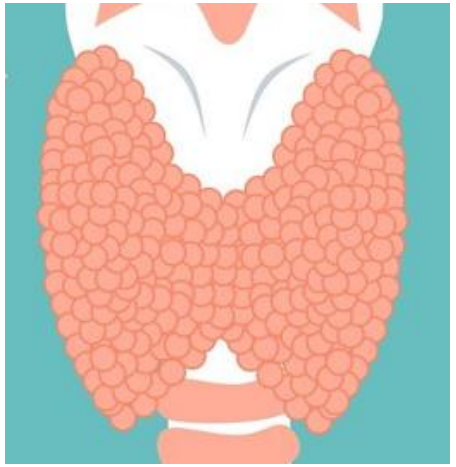
Our bodies need around 2 litres of fresh, pure water every day to be healthy.

Our brain is composed of 75% water. Water is needed to produce neurotransmitters and energy for the brain.
Even 2% dehydration can affect brain function.

Caffeinated drinks like tea, coffee and fizzy pop, and alcoholic drinks don’t count, as they dehydrate us even more.

If you are experiencing fatigue, make sure you are drinking at least 2 litres of fresh, filtered water a day, as this may make a difference.

Thyroid Health



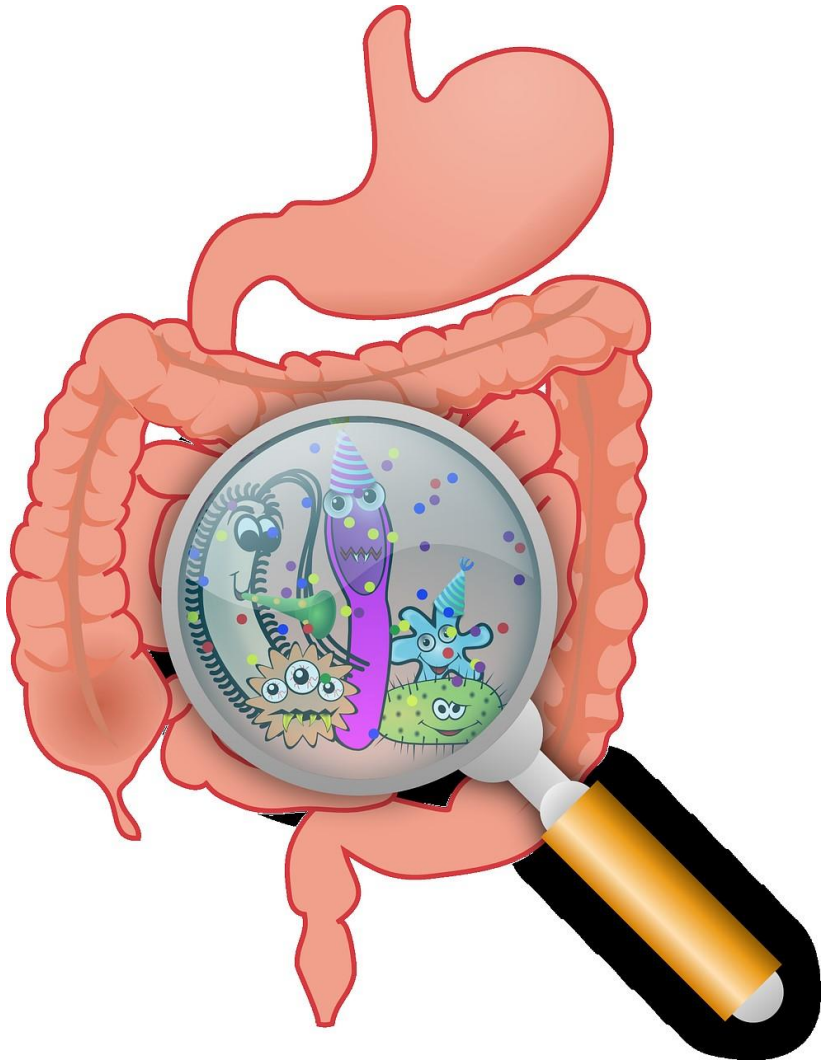
A healthy thyroid is essential for our metabolism which governs the process of converting food into energy

Fatigue is a key symptom of an underactive thyroid, or sub-optimal thyroid hormone function

Nutrients essential for the thyroid include

- **Iodine - Sources:** Iodized salt, seafood (especially seaweed), dairy products, and eggs.
- **Selenium - Sources:** Brazil nuts, fish, sunflower seeds, eggs, and meats.
- **Zinc - Sources:** Shellfish, meat, legumes, nuts, and seeds.
- **Iron - Sources:** Red meat, lentils, spinach, fortified cereals, and pumpkin seeds.
- **Vitamin A - Sources:** Carrots, sweet potatoes, and leafy greens.

The Gut Microbiome



- There are trillions of viruses, bacteria and fungi living in your gut!
- There are more micro-organism cells than human cells, 10-1 (according to some).
- There are as many as 1000 different species of bacteria.
- Many of these micro-organisms are essential for health.
- When harmful bacteria outnumber good bacteria, it's called dysbiosis.
- A dysbiotic gut microbiome has been linked in studies to fatigue conditions, especially ME and cancer

- https://www.nature.com/articles/s41598-021-84783-9
- https://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2021.628741/full?s=09&fbclid=IwAR3JHgMkpGa2C8v5FGCKzG_Rhys6zH9tFkBAW5dVx02u9yg161K3tZ43aJ0

Gut Microbiome and Fatigue

Poor gut health is implicated in many health conditions.

ME/CFS

Studies show that some people with ME/CFS had abnormally low levels of several bacterial species compared to healthy controls, including Faecalibacterium prausnitzii (F. prausnitzii) and Eubacterium rectale. (8 Feb 2023 Dr Williams)

Currently, a research study is being conducted in partnership with UEA into faecal transplants in the treatment of ME.

https://meassociation.org.uk/2023/02/radio-4-today-programme-covers-faecal-microbiota-transplantation-fmt-and-me-cfs/

- Crohn's Disease
- Ulcerative Colitis
- Type 2 Diabetes
- Cardiovascular disease
- Autoimmune disease
- MS

Energy metabolism, fat storage and weight loss

Depression and Anxiety – studies show that there is a link between incorrect gut flora and depression and anxiety.

Food to Keep Your Gut Happy

Pre-biotics

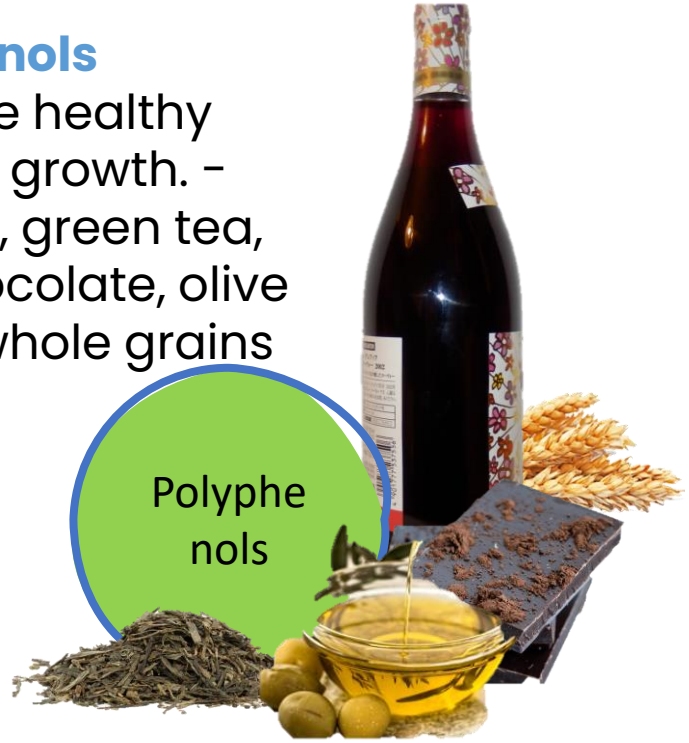
Prebiotics are foods that feed the gut bacteria – mushrooms, oats, artichokes, fibre, cruciferous veg

Pro-Biotics

Probiotics are live, healthy bacteria found in fermented foods. kombucha, natto, kimchi, kefir, sauerkraut, kombucha, live yoghurt.

Polyphenols stimulate healthy bacteria growth. - red wine, green tea, dark chocolate, olive oil and whole grains

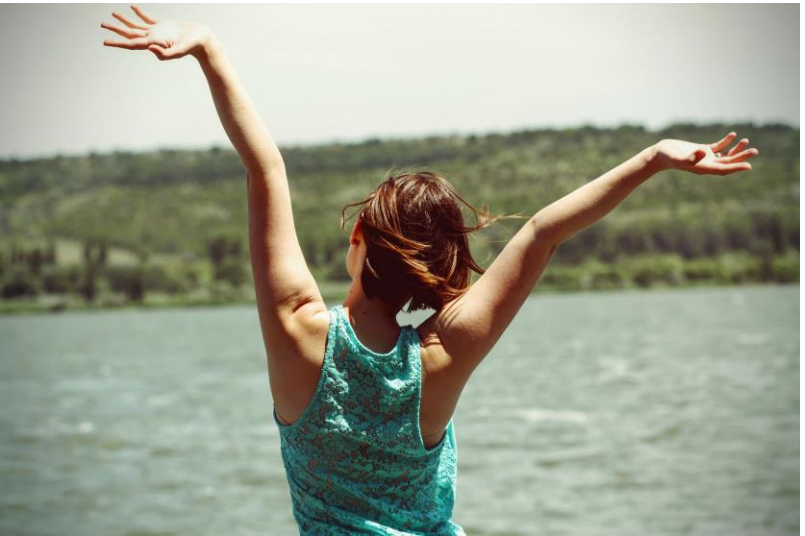
Polyphe nols



Summary

Causes of Fatigue that can be influenced by diet:

- Nutrient deficiencies
- Blood sugar issues
- Mitochondrial dysfunction
- Inflammation
- Food intolerances
- Dehydration
- Underactive thyroid
- Gut dysbiosis



To support your body to make as much energy as possible:

Eat nutrients that support your mitochondria function-

- B Vitamins
- CoQ10
- Vitamin D
- Magnesium

- Eat complex carbs – small meals regularly
- Eat Antioxidant foods – Eat a Rainbow of fruit and veg
- Avoid Foods that provoke inflammation – processed foods
- Consider food intolerances
- Drink 2 litres of water a day
- Eat nutrients that support Thyroid function
- Support your gut microbiome

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Any Questions?