



NUTRITION FOR MITOCHONDRIAL DISEASE

Ensuring you eat and drink enough calories, with the right balance of protein, fat and carbohydrate, can improve your overall health and assist mitochondrial function.

Enjoy a variety of foods from the five food groups

- Vegetables and legumes
 - Wholegrain and high fibre carbohydrate foods such as wholegrain bread, high fibre breakfast cereals, brown rice and pasta, and wholegrain crackers and crispbread
 - Fruit
 - Lean meat, chicken, fish, eggs, nuts and seeds
 - Low and reduced fat dairy products such as milk, yoghurt, cheese and dairy alternatives including soy milk products
- Ensure to include healthy fats such as olive oil, nuts and seeds, oily fish and avocado.
 - Further information about Australian Dietary Guidelines can be found on the Eat for Health website (eatforhealth.gov.au).

Don't skip meals

- Eating small, regular meals and snacks is important to optimise mitochondrial function.
- Ensure you start your day with a nutritious breakfast.
- People with mitochondrial disease should avoid fasting for long periods of time.
- Consider liquid supplements as meal replacements if you are having difficulty eating. when the patient is under 18.

HEALTHY EATING TIPS

It can be challenging to eat well when you have mito because of fatigue and chronic pain.

Being prepared can ensure you have healthy options on hand when you don't feel well enough to cook.

1. Save energy by preparing meals in bulk

- Double dinner recipes and keep leftovers for lunch or dinner the following day.
- Make soups or stews which can be frozen

2. Buy in bulk or order groceries online

- Avoid multiple trips to the supermarket by planning meals and doing a weekly shop.
- If shopping becomes difficult, consider ordering groceries online or using a meal delivery services.

3. Have easy meal and snack options on hand

- Keep a stock of long shelf life items in the pantry for easy meals when you don't feel like cooking, e.g. canned tuna and pasta, low salt baked beans and healthy canned soups.

Limit caffeine if you have trouble sleeping

- Caffeine can impact sleep quality which worsens fatigue.
- Try to limit caffeine intake to no more than 400mg caffeine per day (equivalent to 4-6 cups instant coffee, 2-3 shots of espresso, 4 cups of black tea).
- Limit your intake of other caffeinated beverages including energy drinks, e.g. Red Bull and Coke.

Choose foods with a low glycaemic Index

- The Glycaemic Index (GI) ranks foods containing carbohydrates based on their effect on blood glucose levels.
- Low GI foods are digested and absorbed slowly by the body, causing a lower and slower rise in blood glucose levels and therefore usually insulin levels; this helps to maintain satiety (the feeling of fullness) for longer.
- Your dietitian will be able to advise you further on whether a diet containing low GI foods would be suitable for you. Visit gysymbol.com/about/glycemic-index for more information.

Classical Ketogenic diet or Modified Ketogenic Diet

- Some people with neurological or metabolic disorders (e.g. epilepsy) which do not respond to medication, may benefit from a ketogenic diet
 - A ketogenic diet is high in fat, low in carbohydrate and contains a moderate amount of protein. Reducing the intake of carbohydrates forces the body to use fat for energy, in a process called ketosis.
 - There is limited evidence about the impact of this diet on people with mitochondrial disease. It is important to refer to your specialist and dietitian who can advise if this diet is suitable for you.
- This diet should only be followed under strict supervision from a specialist.**

Disclaimer: Information contained in this document is intended for use as a guide of a general nature only. Individual advice should be sought from a patient's mitochondrial disease specialist. Given the nature of the subject matter and continuous medical advances, the information may change over time, and may or may not be relevant to particular patients or circumstances.