



## Energy Production

Energy or feeling energised is something that everyone is after. Our body naturally produces energy and is what provides us with the drive to accomplish everything we want or need to do.

Energy in the body is in the form of adenosine triphosphate (ATP) and is the primary energy source for every bodily function. ATP is created in a series of reactions called cellular respiration where glucose is broken down. This process mostly happens within the mitochondria of each cell.

The food that you eat is an important factor in energy production. It is important that your diet is optimal to support energy production. A balanced diet that includes wholefood sources of carbohydrates, protein, fat, and micronutrients is important.

Food quality is equally as important as including all the food groups in your diet as wholefoods have a wide range of nutrients supporting your body compared to refined and processed foods.

The table below explains the importance of each key nutrient group in energy production and examples of each to include.

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| <b>Carbohydrates</b><br>Are one of the main substrates used for energy production.<br>Complex carbohydrates are best for improving glycogen stores in the body.                            | <b>Sources of Complex Carbohydrates</b><br>Wholegrains (rice, oats, buckwheat, barley, quinoa), vegetables, legumes, beans, nuts. |
| <b>Protein</b><br>Required to support your body in tissue repair and cellular function.  | <b>Sources of Protein</b><br>Meat, poultry, seafood, eggs, yoghurt, nuts, vegetables.   |
| <b>Fat</b><br>Can also be used for energy production.<br>High intakes of omega-6 fatty acids can cause further health complications, try to include a balanced intake of omega 3, 6 and 9. | <b>Sources of Healthy Fats</b><br>Salmon, mackerel, cod liver oil, flax seeds, chia seeds, walnuts, soybeans, avocado.            |



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The mitochondria in each body cell can also become fatigued and impair energy production. It is important to ensure we are supporting our body in the best way to avoid mitochondria dysfunction.

Try to include these tips to help support the proper functioning of your mitochondria:

### Reduce both EMF and ELF exposure.

Exposure can reduce the production of mitophagy and artificial light from electronic devices also reduces mitochondria activity in the brain.

### Reduce radiation exposure.

Radiation slows down the production of new mitochondria production.

### Ensure you are getting optimal sleep.

The circadian rhythm directs proteins and peptides through the trillions of cells and the mitochondria.

### Support your musculoskeletal system.

Exercise is essential for the stimulation of new mitochondria production.

### Reduce exposure to chemicals and toxins.

Exposure can limit mitochondria and reduce mitochondria production.

*Please note that specialised supplementation may be advisable to recharge your mitochondrial activities and energise your cells. It is important to talk to your health care practitioner about which supplements are best recommended for you.*

We recommend that you get your epigenetics tested regularly to prevent energy production and wellbeing challenges.