

Muscle Growth and Bulking up

Building muscle mass requires an appropriate training program to promote muscle strength and hypertrophy. A diet which compliments specific training can facilitate muscle growth to see better results and get the most out of your training.

Muscle growth takes time

To gain good weight in muscle mass, you need to remain in a positive energy balance from the right types of food so there is always appropriate fuel present for the body to build, replenish and repair muscle as well as having enough fuel to be used for daily living, training and recovery.

More Protein ≠ More Muscles

Having twice the required amount of protein won't mean your muscles become twice as big, twice as fast! **Protein alone does not directly all turn into muscle**; if protein is consumed beyond what is needed, or used the excess kilojoules can become fat. Expect weight gains in the range of up to 0.25 - 0.5kg per week, anything more than this and its likely to just be an increase in body fat and fluid.

How much protein?

Directly after training, **10-20g of protein** can be enough to prevent muscle breakdown. Combining timing and delivery of regular protein is paramount for best results in muscle growth, more so than excessively large quantities of protein. Protein consumption in excess of 2g/kg body weight/day has shown to have no further effect on muscle growth.

Carbohydrates and muscle growth

To enhance post training protein uptake carbohydrates must also be consumed. Carbs stimulate the muscle to absorb amino acids from dietary protein. Carbohydrates also replenish fuel stores to prevent further muscle breakdown. Including carbohydrate AND protein in the pre and post training snacks is just as important as consuming the protein itself.

Protein and fat

Some foods which provide good sources of protein also have high levels of saturated fat; which as well as being an artery clogging fat, can add excess kilojoules and an increase in skinfolds. To reduce gains in body fat try to reduce intake of fatty foods and excess fats. Choose **lean cuts of meat** and remove all visible fat and skin from meat and chicken. Choose **low fat dairy** which has a greater amount of protein in comparison to its full fat alternative.

Increase meal frequency over meal size

The post training meal is one of the most important times to eat for recovery. However, one meal alone directly after training cannot provide all the fuel requirements for the growth and recovery process. The body requires a constant supply of energy when active and recovering to avoid a negative energy balance which can result in muscle mass losses.

To keep the body in a positive energy balance, aim to consume meals and snacks containing a protein and carb source **every 2-3 hours**. Planning and preparation will be important so you have food with you to avoid skipping a meal.

Protein shakes

Commercial protein shakes provide a quick and readily available source of protein after a workout or training session. Protein shakes don't necessarily contain protein with an ability beyond food to help muscle growth. **The benefit of protein shakes is timing** – because they are easy and quick to prepare they can be available directly after training and this is the most important aspect of consuming protein with the aim to build muscle. Protein shakes can be included in diets with high energy requirements but should only be considered when all other dietary habits are adequate.