

# EATING for PERFORMANCE



## Increasing Muscle Mass

There is often confusion on how to increase muscle size. Increasing muscle mass is specific to the individual; for best results it would be wise to seek advice from a nutritionist.

There are four main things to concentrate on when considering weight gain, these are shown in the triangle below.



## Genes

Muscle gain will rely heavily on your genetic make-up. Unfortunately this is something we cannot change. This does not mean that some people will be muscly and some people won't, it's just something to be aware of if you find you aren't looking as big or as muscly as your team mate.

## Training

Start off with a good training programme from a qualified trainer or coach. Let them know you want to increase muscle mass so they give you a suitable training programme.

## Nutrition

Good nutrition is important. It is safe to gain 0.5-1kg of body weight per week.

*Tip 1: The most important nutritional factor is increasing your total energy intake, specifically Carbohydrates and Protein. This does not mean you binge on unhealthy meals!*

*Tip 2: Carbohydrates are important since muscle must be fueled to do the training to stimulate muscles to grow. Carbohydrate consumption should increase in your diet.*

*Tip 3: Protein is also important for athletes trying to gain muscle mass. In most cases, a high-energy diet that provides 1.2-2.3g of protein per kilogram of body mass will ensure that protein needs are met. Do not have too much protein as this will be oxidized as energy and will be stored as fat if it is not used.*

*Tip 4: Eating a carbohydrate-rich, moderate-protein snack or meal immediately after training may help to optimize gains in muscle mass, it is important for athletes to consume a snack providing 1g of carbohydrate per kilogram of body weight plus 10-20 g of protein within 30 minutes of finishing training.*

*Tip 5: Eat and drink frequently, eat small meals often, this is an easy way to increase energy intake, it's important to avoid 3 large meals a day as this can cause stomach discomfort. Examples of small energy dense meals can include fruit smoothies, sports bars, and flavored dairy foods.*

## Patience

Increases in body mass of 2-4 kg per month are generally considered achievable but individuals can respond differently to strength training. It is important to be consistent with your training and your diet. DO NOT crash diet as this can cause a rise in unwanted weight gain e.g increase in fat rather than muscle.

Below is an example for a 70kg AFL player who trains at a high intensity and wants to gain weight.

Quantity of food required to provide high carbohydrate and high protein needs for a 70 kg athlete		Amount of carbohydrate (g)	Amount of protein (g)
Breakfast	2 cups cereal	39	6
	300 ml milk	16	12
	2 slices toast	30	8
	2 tablespoons jam	36	0
	1 cup juice	19	2
Lunch	2 bread rolls each with 50 g chicken + salad	78	41
	1 banana	20	2
	1 fruit bun	34	6
	250 ml flavoured low fat milk	17	13
Dinner	Stir-fry with 2 cups pasta + 100 g meat + 1 cup vegetables	100	50
	1 cup jelly + 1 cup custard	82	13
Snacks	750 ml sports drink	51	0
	1 carton yoghurt	33	10
	1 piece fruit	18	1
	1 cereal bar	24	2
<b>Analysis</b>		<b>594 g (8 g/kg)</b>	<b>166 g (2.3 g/kg)</b>

