



Weight management: Keeping/gaining muscle and losing fat

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Abstract

This report aims to focus upon weight management and process of gaining muscle and losing fat. Weight management is a long-term approach to a healthy lifestyle. It includes a balance of healthy eating and physical exercise to equate energy expenditure and energy intake. Developing healthy eating habits while using tips that will keep us fuller longer can be useful tools in weight management.

Keywords: weight management, health, body mass

Introduction

If you are embarking on a weight loss program, forget fad diets and say goodbye to yo-yo dieting, a sensible program of weight management can help you to lose fat safely and protect against loss of lean muscle mass. The key to long-term weight control is to make several small changes that count on a day to day basis.

Setting a Realistic Fat Loss Goal

A sensible goal is to reduce body fat by about 0.5-1.0 kg per week, which represents a loss of between 3,500-7,000 calories. Where possible it is preferable to make these calorie savings by reducing your intake of dietary fat while maintaining the amounts of carbohydrate and protein in your diet.

How Many Calories?
1 gram carbohydrate= 4 calories
1 gram Fat= 9 calories
1 gram Alcohol= 7 calories
1 gram Protein= 4 calories

Fig 1

Alcohol is high in calories and so it is important to be aware of the total energy intake from alcoholic drinks and its impact on energy balance. Although it is high in energy content, alcohol is not a good fuel for exercising muscles.

Alcohol-How many calories?
On average:
1 pint of bitter, lager or cider:
200 calories
1 pint of strong ale:
250-300 calories
1 small glass (125ml) of wine
60-80 calories
1 standard measure (25 ml) of spirits:
60-70 calories

Fig 2

Our guide to weight management will help you to identify some ways to cut your ENERGY IN by 500 calories per day from fat and alcohol calories. When combined with an increase in energy expenditure from being more active it will enable you to reduce your body fat and maintain your weight loss in a healthy way.

Reducing Energy In

By reducing dietary fat intake by 50 g per day, an energy (calorie) saving of about 450 kcal per day or 3150 kcal per

week can be achieved. Such a saving can result in a weight loss of about 0.5 kg per week providing additional energy is not consumed by eating more protein, and/or carbohydrate than needed or by consuming alcohol to excess.

The food swaps to reduce fat in (Figure 3) provide some easy ways to cut fat intake and reduce calorie intake. Remember that small changes can add up to significant savings over a week, month and year!

Here are some ways to cut around 500 calories (ENERGY IN):

- By switching from a packet of crisps to a banana you save 12 grams of fat and 63 calories
 - Replacing carbonara sauce by tomato-based sauce with pasta saves an amazing 27 grams of fat and 243 calories (based on a 200 gram serving of sauce)
 - Switching from 500 ml fully skimmed milk saves 18.5 grams of fat and 167 calories.
- The 3 food swaps in this example amount to an energy saving of 473 kcal per day.



Fig 3: Food swaps to Reduce Fat

Table 1

Food Swap	Total Fat Saving (gram)	Total Energy Saving (Kcal)
1 pork chop with fat replaced by 1 pork chop lean only	19	171
Egg mayonnaise replaced by egg with reduced fat mayonnaise	13	117
2 digestive biscuits replaced by 1 banana	7	63
A packet of crisps replaced by 1 banana	12	108
2 chocolate digestives replaced by 2 jaffa cakes	5	45
A doughnut replace by slices malt loaf	10	90
A doughnut replaced by 2 slices malt loaf	11	99
A 50 gm bar of dairy milk chocolate replaced by a bar of Turkish delight	27	243
Replacing carbonara sauce by a tomato-based pasta sauce (based on a 200 gram 1 Cornish pasty replaced by a ham sandwich	37	333
Pilau rice replaced by boiled rice	22	198
2 grilled sausages replaced by 2 low fat grilled sausages	13	117
2 slices of bread with butter or ordinary margarine replaced by 2 slices with low fat spread	11	99
1 slice of ordinary cheddar replaced by 1 slice of reduced fat cheddar	7	63
500 ml full fat milk replaced by skimmed milk	18.5	167

Remember to check out the fat content of food on food tables where possible and look for the lower fat alternatives.

Other Considerations

High-protein diets are sometimes popular with people wanting to lose weight, and there have been many studies looking at the effect of such diets on weight loss. There is some evidence to suggest that protein-rich foods can increase satiety and minimise hunger thus helping to reduce overall energy intake. The fibre content and slow release of energy from carbohydrate foods with a low glycaemic index (GI) can also help regulate hunger between meals. You can read more at: Low GI foods include porridge, beans, pulses, sweet potato, basmati rice and milk and dairy foods. So when trying to reduce body fat it can be beneficial to include low GI carbohydrate foods with meals to provide slow releasing energy throughout the day and support your energy levels during exercise and training. Regardless of the composition of the diet, weight loss will occur only if more energy is expended through exercise and

being physically active than is consumed from food. It is also important to develop an eating pattern that suits your lifestyle and that you can sustain over a long period.

Keeping/Gaining Lean Body Mass

Very low calorie diets can result in a loss of lean body mass (mostly muscle) as well as fat, and this is not a good idea. Diet and exercise programs aimed at preserving and increasing lean body mass in adults can improve metabolic health as well as strength and functional capacity in later life. The inclusion of resistance training in an exercise program, along with an adequate protein intake, provides the stimulus for muscle protein synthesis. Once the hard work of training is done diet can play an important part in optimising the repair and regeneration of muscle tissues. A source of high quality protein providing all the essential amino acids, the building blocks of muscle, taken with some carbohydrate will stimulate insulin production which in turn promotes the uptake of amino acids into the muscles.

Sometimes people believe that they need to turn to protein supplements to meet the additional requirements for maintaining lean body mass, but there is no scientific evidence that protein or amino acids in supplements are more effective than ordinary food. Most people get plenty of protein through a varied diet and average helpings of everyday foods can supply similar amounts of protein to that provided by food supplements.

Conclusion

The timing of consumption of protein around exercise is more important than overall quantity of protein intake. Consuming approximately 20 grams of protein within 30 – 60 minutes after exercise, especially weight training exercise is most effective in building muscle tissue. Milk contains a unique blend of high quality proteins – casein and whey: both are good sources of protein, but whey is more rapidly absorbed and may be more effective in promoting muscle growth and repair. The vast majority of protein supplements are based on whey protein, and research shows that milk, because of its whey content is the ideal choice for recovery and repair and regeneration of muscle fibres after exercise.

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