

RED MEAT MATTERS



**Lean red meat
can be included in
weight control diets**

Fact **6**

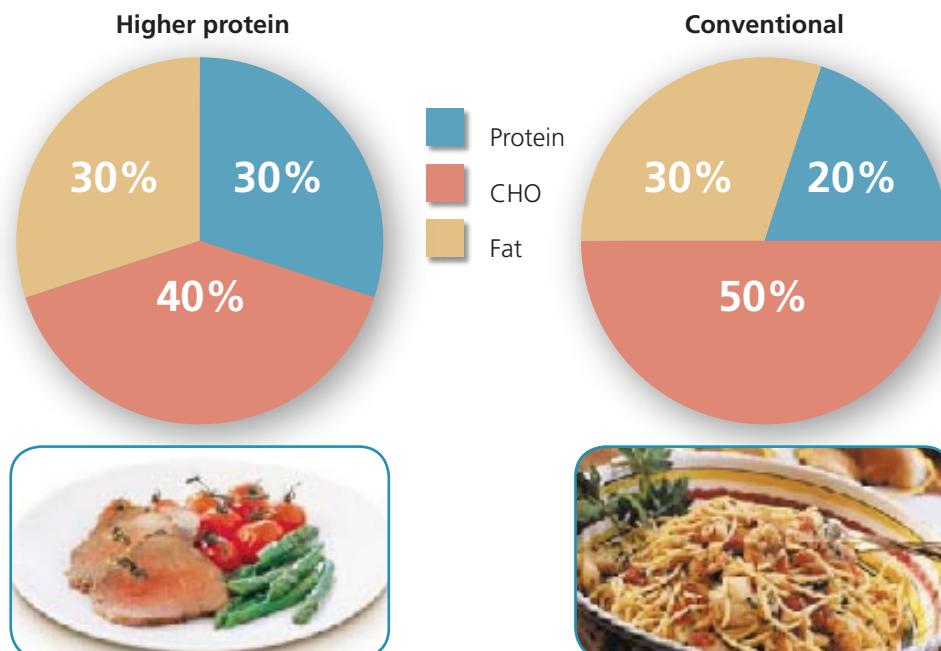
In Australia we are fortunate to have at our finger tips a wonderful array of foods available. However, we aren't exercising as much as previous generations and as a result obesity rates are on the rise. Therefore we need to reduce our energy (kilojoule) intake and at the same time make sure we are getting enough nutrients for good health.

Approaches to keeping our energy intake down

The best way to get the most nutrition from our food without overdoing the fat or kilojoules is to make every kilojoule count and choose foods that are nutrient dense. That is, food choices which provide the most nutrients for a given number of kilojoules.

To help reduce our total energy (kilojoules) we have generally focused on reducing our fat intake with the conventional approach being high in carbohydrate.

However, a strong and growing body of scientific evidence (including some Australian clinical trials) shows that replacing some of the carbohydrate with more protein can be just as effective as the conventional diet.¹⁻⁷



Advantages of the higher protein, low fat diet

The evidence also shows that the new higher protein approach may have some distinct advantages over the conventional diet:

Compliance

Most studies comparing the two different approaches were energy controlled, however where energy intake wasn't fixed, the higher protein subjects achieved a greater weight loss. This may be related to the finding in some studies that higher protein intake improves satiety (feeling of fullness), so that subjects are content to eat less energy overall and stick to their diet.^{2,4}

Total body fat loss

Some studies showed that the higher protein, low fat approach tended to maintain muscle and reduce body fat, compared to the high carbohydrate diet, particularly in women.^{3,4}

Metabolic benefits

Studies have shown that the higher protein approach has several metabolic benefits. Replacing some of the carbohydrate with protein has been found to:

- improve the blood glucose response, which is particularly important for people with type 2 diabetes.⁸
- produce greater weight loss in subjects with high blood fat (triglycerides) than those on the high carbohydrate diet.^{1,2,5,9}

Safety

Clinical trials (up to a 12 month period) have found both the higher protein diet and conventional diet to be safe with renal and bone health being maintained.^{1,7,10} Studies looking at the effect of dietary protein on renal function have not found any problems in either those with normal or mildly impaired renal function.^{11,12} Although some loss in bone mineral density is to be expected with significant weight reduction, one study found a lower rate of decrease on a higher protein diet.¹³

Following the higher protein, low fat eating plan

1. Regular protein serves

- For dinner include lean red meat (beef, lamb or veal) at least 3 to 4 times a week and fish 2 times a week
- For lunch include lean protein (meat, poultry or fish)
- Consume 2 serves of low fat dairy foods everyday

2. Moderate carbohydrate intake

- Focus on wholegrain carbohydrate foods to maintain fibre intake while limiting refined carbohydrate foods

3. Low fat intake

- Include 3 teaspoons of unsaturated fats and oils everyday

4. Regular physical activity

- At least 1 hour of suitable physical activity is recommended in a weight loss program everyday.



The CSIRO Total Wellbeing Diet is an example of a higher protein, low fat eating plan based on scientific evidence. The CSIRO Total Wellbeing Diet books 1 and 2 provide easy-to-cook recipes and sample meal plans. Visit www.csiro.au for more information.

Lean red meat's role in weight management

Lean red meat is a nutrient-dense food and therefore plays a vital role in a healthy diet. Eating the recommended amounts of lean red meat 3 to 4 times a week will help to provide a large proportion of valuable nutrients – protein, iron, zinc, vitamin B12 and omega-3s but little fat or kilojoules.

Lean red meat helps us feel satisfied

Red meat can help make it easier for people to stick to their weight control diets. This is because red meat and other protein-rich foods are more satisfying, keeping us feeling fuller for longer than many other foods and helping us eat less.



1. Farnsworth E et al, (2003): "Effect of a high-protein, energy restricted diet on body composition, glycaemic control, and lipid concentrations in overweight and obese hyperinsulinaemic men and women." **American Journal of Clinical Nutrition**; 78: 31-9.
2. Layman D et al, (2003): "A reduced ratio of dietary carbohydrate to protein improves body composition and blood lipid profiles during weight loss in adult women." **Journal of Nutrition**; 78: 31-9.
3. Parker B et al, (2003): "Effect of a high-protein, high-monounsaturated fat weight loss diet on glycaemic control and lipid levels in type 2 diabetes." **Diabetes Care**; 25: 425-30.
4. Skov AR et al, (1999): "Randomised trial on protein vs carbohydrate in ad libitum fat reduced diet for the treatment of obesity." **International Journal of Obesity and Related Metabolic Disorders**; 23: 528-36.
5. Baba NH et al, (1999): "High protein vs high carbohydrate hypoenergetic diet for the treatment of obese hyperinsulinaemic subjects." **International Journal of Obesity and Related Metabolic Disorders**; 23(11): 1202-6.
6. Luscombe ND et al, (2002): "Effects of energy restricted diets containing increased protein on weight loss, resting energy expenditure, and the thermic effect of feeding in type 2 diabetes." **Diabetes Care**; 25: 652-7.
7. Noakes M et al, (2005): "Effect of an energy restricted, high-protein, low-fat diet relative to a conventional high-carbohydrate, low-fat diet on weight loss, body composition, nutritional status, markers of cardiovascular health in obese women." **American Journal of Clinical Nutrition**; 81; 1298-306.
8. Gannon MC et al, (2003): "An increase in dietary protein improves the blood glucose response in persons with type 2 diabetes." **American Journal of Clinical Nutrition**; 78: 734-41.
9. Piatti PM et al, (1994): "Hypocaloric high-protein diet improves glucose oxidation and spares lean body mass: comparison to hypocaloric high-carbohydrate diet." **Metabolism**; 43: 1481-7.
10. Skov AR et al, (1999): "Changes in renal function during weight loss induced by a high vs low-protein, low-fat diets in overweight subjects." **International Journal of Obesity and Related Metabolic Disorders**; 23: 1170-7.
11. Skov AR et al, (1999): "Changes in renal function during weight loss induced by a high vs low-protein, low-fat diets in overweight subjects." **International Journal of Obesity and Related Metabolic Disorders**; 23: 1170-7.
12. Knight EL et al, (2003): "The impact of protein intake on renal function decline in women with normal renal function or mild renal insufficiency." **Annals of Internal Medicine**; 138: 460-67.
13. Skov AR et al, (2002): "Effect of bone mineralisation during weight loss: a 6-month trial." **Obes Res**; 10(6): 432-8.

Meat & Livestock Australia (MLA) represents the beef, sheepmeat and goatmeat producers of Australia and manages research and development, marketing and promotions on behalf of the industry. MLA has a commitment to providing Australians with accurate nutrition information and promotes the role of red meat as part of a healthy, balanced diet.

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