

RED MEAT MATTERS



Red meat is a major contributor of key nutrients in the diet

Fact **2**

A third of Australians eat red meat less often than 3 to 4 times a week as recommended in the Australian dietary guidelines. They could be placing themselves at risk of a range of chronic health problems. This is because red meat (beef, lamb and veal) is a major contributor of key nutrients in the diet.

Red meat as a contributor of key nutrients

The most recent National Nutrition Survey was conducted in 1995.² Although this is over 10 years ago, the results of the Survey still provide us with important knowledge on the role red meat plays in a healthy diet.

In 1999, re-analysis of the 1995 National Nutrition Survey by CSIRO Health Sciences and Nutrition revealed red meat is a major source of essential nutrients in the Australian diet.³

In the average Australian adult's diet, red meat (beef, lamb and veal) contributed:

20% of the daily protein

52% of the haem iron

27% of the zinc

24% of the vitamin B12

28% of the long-chain omega-3s

only 8% of the total fat intake

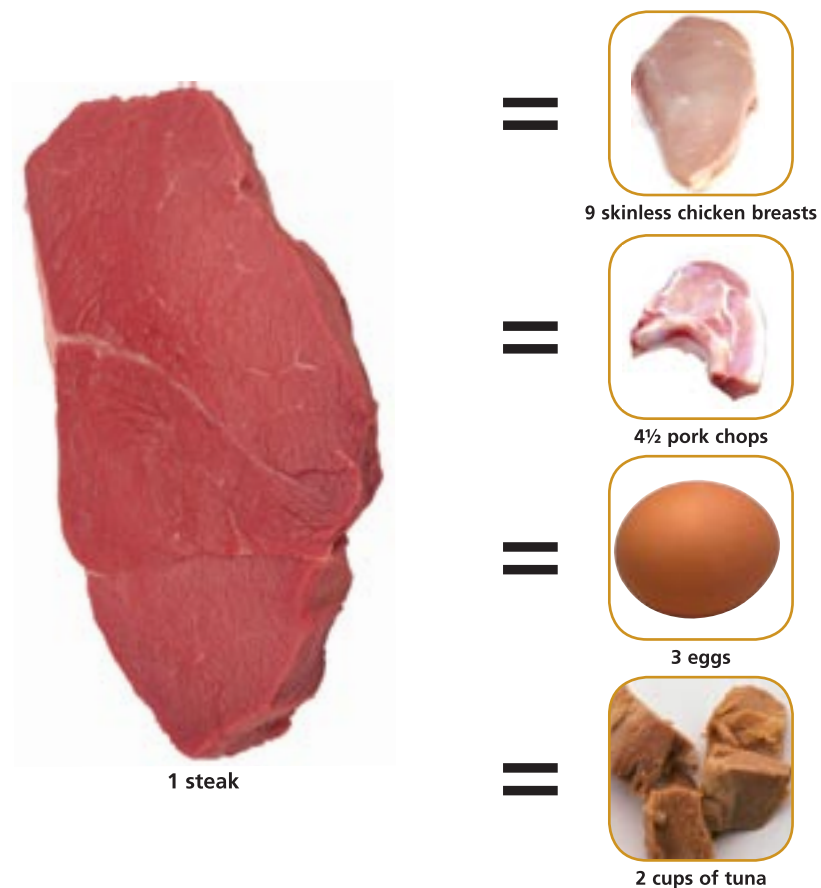
Contribution of different animal foods to nutrient intakes

The following table shows how lean beef and lamb compare with skinless chicken, pork, egg and tuna as contributors of key nutrients in the diet. It demonstrates how much of each protein food provides one quarter (25 per cent) of the recommended dietary intake (RDI) of iron, zinc and vitamin B12 for an adult woman.

Amount of different animal foods needed to supply 25 per cent of the RDI of iron, zinc and vitamin B12 for an adult woman.

Food	Iron	Zinc	Vitamin B12
RDI³	18mg	8mg	2.4µg
Cooked lean beef rump steak (100g) ⁴	1½ steaks	¼ steak	¼ steak
Cooked lean lamb steak (100g) ⁴	1½ steaks	½ steak	⅓ steak
Cooked skinless chicken (100g) ^{5, 6}	9 breasts	2½ breasts	1 breast
Cooked lean pork chop (100g) ⁵	4½ chops	¾ chop	1½ chops
Canned tuna ⁵	2 cups	1¼ cups	¼ cup
Hard boiled egg ⁵	3 eggs	2 eggs	½ egg

A small serve of lean beef (150g rump steak) will provide a quarter of an adult woman's daily iron needs, where as for the same amount of iron, you would need to eat 9 chicken breasts, 4½ pork chops, 3 eggs or 2 cups of tuna.



Comparing the contribution of lean red meat and different plant foods to nutrient intakes

It is important to note that generally only a small proportion of iron and zinc in plant foods is actually absorbed. A dietary modelling study conducted by Professor Katrine Baghurst, Adjunct Professor, University of Adelaide found that plant-based alternatives are not nutritionally equivalent to red meat because “whilst plant based alternatives such as legumes, nuts and seeds provide protein, they are generally poorer sources of readily available iron and zinc and do not contain vitamin B12 or long-chain omega-3s.”⁶

This is acknowledged in the latest *Nutrient Reference Values for Australia and New Zealand* which set the requirements for iron and zinc 80 per cent and 50 per cent higher respectively for strict vegetarians.⁷

Food	Iron* (mg)	Zinc* (mg)	Vitamin B12 (µg)
Lean red meat	+++	++++	+++
Lentils	+++	+	-
Nuts	+	+	-
Seeds	+	+	-

* The iron and zinc in plant foods is not as well-absorbed.

Lean red meat naturally nutrient-rich

Excluding red meat from the diet may lead to inadequate intakes of essential nutrients, particularly iron, zinc and vitamin B12.⁶ Careful planning is needed to ensure nutrient intakes are maintained if red meat is not eaten. Iron and zinc are two of the most common nutrients we lack in our diets, so every effort must be made to eat enough iron and zinc-rich foods.

Some people attempt to improve their intakes of nutrients by taking vitamins and minerals as a dietary supplement. However, obtaining nutrients from foods such as meat and vegetables ensures that a naturally balanced range of other nutrients and protective substances is also eaten. Many of the nutrients that naturally occur in food are more absorbable than when taken in supplemental form.

Summary of key points:

- The Australian dietary guidelines recommend lean red meat be eaten 3 to 4 times a week.
- Up to a third of Australians eat red meat less often than recommended and could be placing themselves at risk of a range of chronic health problems.
- Red meat is a significant contributor to the intake of protein, iron, zinc, vitamin B12 and omega-3s in the diets of Australians.
- Red meat is a richer source of many important nutrients relative to other commonly eaten "protein" foods.
- Plant based alternatives to red meat are generally poorer sources of readily available iron and zinc and do not contain vitamin B12 or long-chain omega-3s.
- Excluding red meat from the diet may lead to inadequate intakes of essential nutrients, particularly iron, zinc and vitamin B12.
- Foods are a more balanced source of nutrients than supplements.

References:

1. *Red meat consumption and attitudinal research* (2007), Millward Brown.
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3. Record S et al, (1999): "Red meat consumption – results from the 1995/6 National Nutrition Survey," **CSIRO Health Sciences and Nutrition**, commissioned by Meat & Livestock Australia.
4. Williams P et al, (2007): "Composition of Australian red meat 2002-3. Nutrient profile," **Food Australia**; 59:331-41.
5. Food Standards Australia New Zealand, (2006): "NUTTAB 2006. Online Database of the Nutritional Composition of Australian Foods," Canberra: FSANZ.
6. Shrapnel B and Baghurst K, (2007): "Lack of nutritional equivalence in the 'meats and alternatives' group of the Australian Guide to Healthy Eating," **Nutrition & Dietetics**; in press.
7. National Health and Medical Research Council, (2006): "Nutrient Reference Values for Australia and New Zealand including Recommended Dietary Intakes," Canberra: Commonwealth Department of Health and Ageing.



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