

RED MEAT AND CANCER RECOMMENDATION

What does it mean for New Zealanders?

Several global cancer reports have looked at the impact of diet and lifestyle on cancer risk. Red meat* is one of a number of modifiable factors that have been extensively researched in the pursuit of answers behind cancer. In 2018, the World Cancer Research Fund downgraded red meat from a 'convincing' to 'probable' cause of bowel (colorectal) cancer. So what does this mean when it comes to the next meal with red meat?

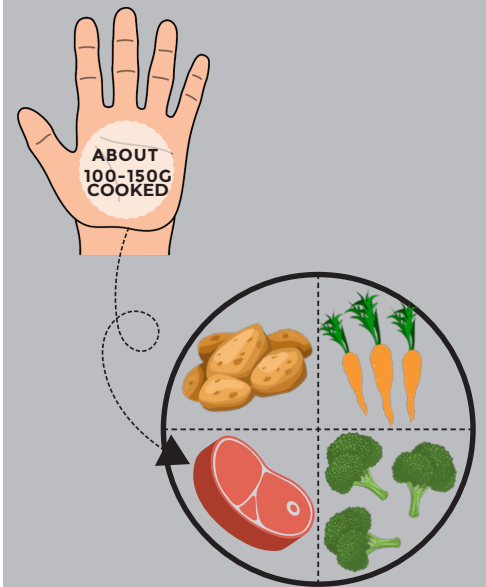
How much lean beef and lamb should I be having?

The World Cancer Research Fund (WCRF) recommends eating up to 350-500g/week of cooked lean red meat (approximately up to 750g/week raw), as part of a healthy, balanced diet and lifestyle (WCRF, 2018).

But what does 350-500g/week look like? Assuming an average intake of about three red meat meals a week, this would allow a cooked portion size of up to 100-150g per meal. You can also use the size and thickness of the palm of your hand as an estimated red meat portion guide.

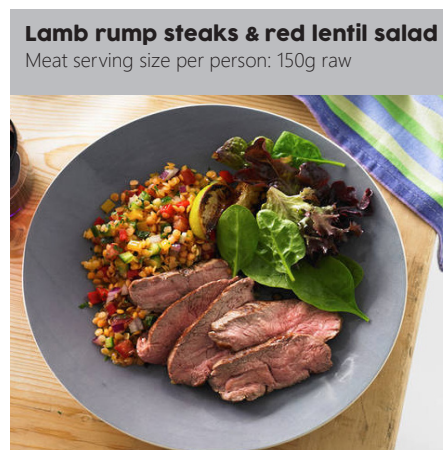
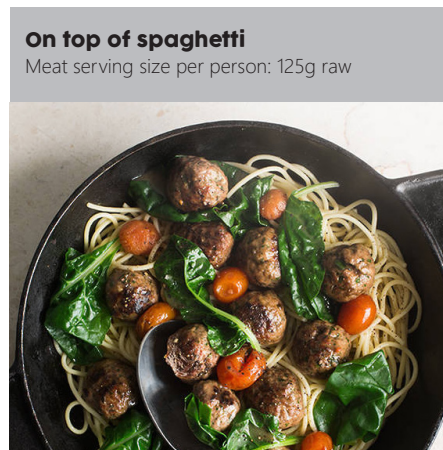
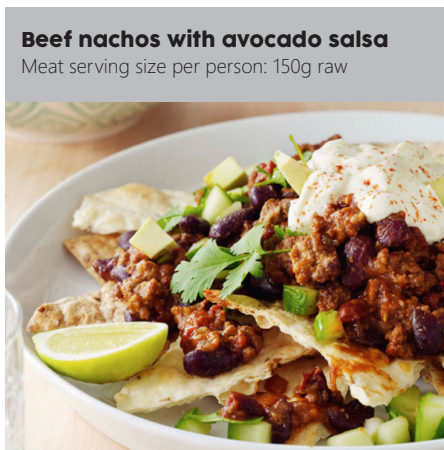
Most of the recipes provided by Beef and Lamb New Zealand Inc allow for 100-150g of raw red meat per person. The following meal ideas show how beef and lamb can be included in a healthy, balanced diet up to three times a week.

The recipes below can be found on recipes.co.nz or click on the images below.



So how does the recommended intake amount compare to the actual amount of beef and lamb New Zealanders are eating?

The average beef and lamb intakes in New Zealand were measured in the 2008/09 Ministry of Health's Adult National Nutrition Survey (Ministry of Health, 2011). Whilst these figures are now more than 13 years old, and use 24-hour dietary recall and food frequency methodology, they are the most representative measure of consumption available. According to the Adult National Nutrition Survey, men were eating an average of 53g/day and 11g/day of beef and lamb, respectively. In comparison, women were eating an average of 30g/day beef and 8g/day of lamb (Parnell et al, 2012).



*The term "red meat" in this resource refers to New Zealand lean and unprocessed beef and lamb.

The facts behind the headlines – does eating red meat lead to cancer?

Obtaining definitive evidence to confirm the effects of specific dietary factors on disease risk is a challenging process. Randomised controlled trials are needed to demonstrate a 'cause and effect' link, but data from such studies is rarely available. We therefore rely namely on observational studies (cohort, cross-sectional, case-control and epidemiological), which can only look for associations.

A number of studies have examined the relationship between meat and cancer. The 2018 World Health Organisation's International Agency for Research on Cancer Report (WHO IARC) suggested a probable link between red meat consumption and colorectal cancer, and limited evidence of a link with other cancers.

Research suggests the **possible** mechanisms that explain this '**probable**' link include:

- When red meat is cooked at high temperatures, carcinogenic heterocyclic amines (HCAs) and polycyclic aromatic hydrocarbons (PAHs) may form.
- During digestion, the haem iron that gives meat its red colour, may activate carcinogenic N-nitroso compounds (NOCs). However, evidence from the WCRF and American Institute of Cancer Research report suggests the consumption of foods containing haem iron increasing the risk of colorectal cancer is limited.

Research from this same report does show a decreased risk of colorectal cancer with greater dietary fibre consumption.

According to the Nutritional Recommendations (NutriRECS) Consortium, an independent group of nutritional experts, suggest adults should continue current moderate red meat consumption, acknowledging the evidence linking cancer and red meat consumption is low to very low.

The WHO IARC, the WCRF and the New Zealand Ministry of Health all agree eating lean red meat in moderation, as part of a healthy balanced diet and lifestyle, contributes to a range of valuable nutrients for wellbeing and energy.

The benefits of moderate meat consumption include:



The healthiest way to enjoy red meat:

- Enjoy cooked red meat in moderation (up to 500g/week)
- Choose lean cuts of beef and lamb
- For other cuts of beef and lamb trim off and discard visible fat when necessary
- Use the size and thickness of your own palm as an estimated portion guide for yourself
- Use a solid plate on a barbecue or grill so meat does not touch the naked flame
- When barbecuing, grilling or pan-frying meat try not to overcook it and cut off and discard any burnt or blackened parts
- Preferably grill, bake or casserole red meat with little added oil
- Use the healthy plate model as a guide for structuring meals: ¼ protein (e.g. lean red meat), ¼ carbohydrate (e.g. potato) and ½ non-starchy vegetables (e.g. salad, broccoli, peas, carrots etc.)
- Have red meat as part of a healthy, balanced diet that includes plenty of fruits, vegetables and wholegrains
- Consider other dietary and lifestyle factors that could contribute to cancer risk (e.g. smoking status, dietary pattern, alcohol intake, sun exposure and healthy body weight)

Overall, eating and lifestyle habits are more important factors in cancer risk than specific foods. Lean beef and lamb provide a number of essential nutrients to the diet that can optimise health and wellbeing. It would be unadvisable to suggest a general reduction in meat consumption without first assessing individual intake levels, as well as overall eating patterns.

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References

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