

What's the beef?

Red meat gets a bad rap in the health stakes, writes JOANNA McMILLAN PRICE, but here's some food for thought

‘Some have meat, and cannot eat,
And some would eat that want it;
But we have meat, and we can eat
— and so the Lord be thanked.’

This quote from the famous Scottish bard Robbie Burns is much used in my native land as a grace before dinner. It nicely illustrates the importance that meat has played in our diet, considered by most as being the star player of the meal.

In both developed and developing countries, animal foods are generally more expensive and therefore more valued than plant foods; intakes vary more from cost and availability than anything else.

Yet on the other side of the coin a significant number of us shun some or all animal foods and survive quite happily on a meat-free diet. Some do so for moral or religious reasons while others believe it's healthier not to eat meat.

Red meat in particular has come under fire, largely as a result of the advice to lower fat intake, particularly saturated fat, for health. So should we or should we not be eating meat?

If we put aside all moral and religious considerations and simply consider the nutritional science, the evidence in favour of eating animal food is pretty convincing. We



have a relatively high requirement for the minerals iron and zinc, both of which are in found in greatest abundance and in the most readily absorbable form in animal foods. Of all meat, red meat is particularly rich.

The iron found in plant foods is extremely poorly absorbed (although the presence of some meat in the meal will improve absorption of the plant iron, as will a good source of vitamin C). Zinc is generally found in only very small quantities in plant food,

while red meat provides good quantities and the best source of all is seafood, including oysters and mussels.

Meeting the recommended daily intakes for these minerals is extremely difficult, if not impossible, on a completely animal-free diet without the help of supplementation.

Vitamin B₁₂ is found only in animal foods. Small amounts are often found in seaweeds but this comes from micro-organisms present or fish waste. We are

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very efficient at recycling this vitamin and so it takes many years of a strict vegan diet to develop a deficiency.

Nevertheless, the fact that a nutrient found only in animal foods is so essential to the functioning of the human body is fairly convincing proof that we're designed to eat animal food in some form.

Taurine is an amino acid required for successful synthesis of proteins throughout the body. While we can make taurine from other amino acids, our ability to do this has limitations. Taurine is only available in our diet from animal foods.

Vitamin A is an important anti-oxidant and essential for the healthy functioning of the eye. Yet this vitamin is not found in any plant food. Beta-carotene is widely found in plant foods and can be converted to vitamin A in the liver but, as with taurine, our capacity to do so is limited.

Finally, the types of fat available to us from plant and animal sources are different. Only animal foods have the longer chain fats essential for the normal functioning of cells in the body.

While we can make these longer chain fats from the shorter plant fats, we are less efficient at doing so. This applies to the omega-3 fats we know to be important in brain development and function; those present in plants such as linseed are shorter chain than those found in animal food and do not have quite the same effect. While oily fish and seafood are undoubtedly the richest sources, the levels in red meat are significant.

Taken together, this is pretty convincing evidence that, genetically, we have evolved to rely on animal produce for the key essential nutrients.

This is not to say that you cannot follow a vegetarian diet. You can indeed do so, provided you take great care in your food choices to provide all the nutrients you need.

The more foods you avoid, the harder this becomes and so vegans will almost

always have to use supplements to meet nutrient requirements.

So why is it that several studies have shown vegetarians to be healthier? While advocates of vegetarianism cite such studies as evidence of the detrimental effects of eating meat, there is an alternative conclusion.

Firstly, there is much confounding of factors known to improve health that makes it difficult to study only the dietary differences; for example, vegetarians tend to follow healthier pursuits, smoking less, exercising more and so on.

But this aside, it may be that it's the protective qualities of plant food, rather than not eating animal foods, that confers the benefit.

In the same vein, studies that have found meat-eaters to have poorer health, with increased risk of cancer and/or heart disease, may be finding an effect due more to what they're not eating rather than what they are. In other words, failing to eat enough plant food may be what increases health risks rather than any effect of meat per se.

Probably the strongest evidence against eating meat has come from studies linking meat consumption to colon cancer, one of the most common cancers affecting Australians. Several large-scale studies, particularly in the US, found those with the highest meat intakes also had the highest risk of colon cancer.

This, together with the discovery that carcinogenic substances are produced when meat is cooked at high heat (eg, on the barbecue), proved pretty damning to meat.

But, on closer inspection, the picture isn't quite so straightforward. The latest evidence highlights three key aspects that affect risk: how the meat is cooked — both the method and the degree of "doneness"; the type of meat you eat — processed or unprocessed; and your overall intake of plant foods.

In short, the greatest risk comes from eating processed meats, meats cooked at high temperatures and "well done", and not

piling enough salad or veg on your plate to accompany the meat.

So what we can conclude? Firstly healthy diets can both include or exclude meat — it's all about what else there is in your diet. If you don't eat meat, think about which foods you can eat to best replace the nutrients found in meat. For those who do enjoy meat, we can indeed eat and be thankful, but let's be choosy about it:

- **Go for lean cuts** to keep saturated fat levels down while maximising intake of the key nutrients. Look for meat labelled "grass-fed" rather than "grain-fed" as the latter leads to more fat marbling through the meat. Chefs may like this for the flavour and moistness that fat imparts, but a carefully cooked lean grass-fed fillet is far better for your health. Another excellent option is to look beyond the standard beef and lamb cuts and choose a game meat. These are far less intensively farmed and almost without exception extremely lean. In Australia, the most commonly available is kangaroo — and the added bonus is that it is also incredibly good value.

- **Use long, slow cooking methods** such as slow roasting, braising, poaching and stewing and, when you do grill or barbecue, use less heat and learn to like your meat rare or medium-rare rather than well done. This will also ensure the best flavour of lean meat.

- **Steer clear of or at least cut down on processed meats** including sausages, burgers, salami, bacon and ham. Choose fresh unprocessed meat cuts instead.

- **Accompany your meat with generous portions of plant food** to ensure you have a good intake of fibre, antioxidants and other health-promoting substances.

Finally, don't always choose meat — we can all benefit from consuming more fish and seafood, for example. And, whatever type of diet you choose to follow, the best means of maximising your nutrient intake is to eat a good variety of foods.

Look at the big picture and remember that our health or risk of disease comes less from whether or not we eat one particular source of food but from our overall lifestyle, genetics and complete diet. If you're overweight, you smoke and/or are physically inactive, all of these factors are more likely to be detrimental to your health than whether or not you eat meat. ■

