



Red Meat

Cutting through the confusion



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A World Health Organisation (WHO) summary publication on meat and cancer last year created an outpouring of media headlines claiming, in some cases, that eating red and processed meats posed a similar health risk to smoking tobacco. This was untrue and had to be clarified in a further press statement from WHO.¹ Photos of sausages and burgers were accompanied by conflicting statements about risk and health, often prompting a backlash from readers and other commentators. At the root of this were fundamental misunderstandings in the media about how WHO had graded the evidence, what the risk meant for colorectal cancer (CRC) statistics, how processed meat was defined, and how much meat was safe to consume.

Given this and the blanket message in the new Eatwell Guide to 'eat less red meat',² consumers and health professionals could be forgiven for feeling confused. This article aims to address the issue by looking in detail at what the WHO and the UK's Scientific Advisory Committee on Nutrition (SACN) said about red meat and how this can be translated into simple public health messages. It is important to do this for two reasons: firstly, because more than 95% of people in the UK eat meat;³ and, secondly, because red meat is the most bioavailable source of iron and zinc, and contains several other useful nutrients.⁴ Therefore, blanket 'eat less meat' messages could have a significant adverse impact on future nutrient adequacy.

WHO report

The International Agency for Research on Cancer (IARC), the specialised cancer agency of the WHO, regularly reports on determinants of cancer. Following a meeting in October 2015, a short commentary on red and processed meat was published. The full monograph will be made available during 2016.

The commentary made several points about the available evidence, which included more than 800 observational studies mainly relating to CRC risk:

- Average intakes of red meat worldwide were 50-100 g with high intakes defined as those in excess of 200 g per day
- Processed meat and red meat were clearly defined (see **Figure 1**)
- Red meat contains high biological value proteins and important micronutrients, such as B vitamins, iron and zinc

- Of the 15 case-control studies which examined CRC, seven reported positive associations with high versus low intakes of red meat. For processed meat, 12 out of 18 cohort studies reported positive associations
- A meta-analysis of 10 cohort studies found a 17% increased risk with every 100 g of red meat consumed daily and a 18% increased risk for every 50 g of processed meat consumed daily
- For these reasons, IARC graded the evidence relating to processed meat and CRC as 'sufficient' (Grade 1). Other substances/activities within this grading include contraceptive pills, HRT and working as a painter
- Due to greater inconsistency, IARC determined that the evidence relating to red meat and CRC was 'limited' (Grade 2a). Other substances/activities within this grading include coffee, shift work and hairdressing.