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## ORGANIC FOOD: IS IT REALLY BETTER FOR US?

**‘Organic’ is no longer just associated with fresh fruits and vegetables; these days you can find organic pasta, organic sauces, organic biscuits, cakes and energy bars on our supermarket shelves. You name it, there’s an organic version somewhere trying to convince consumers that it’s healthier choice.**

For food producers, being able to market their produce as organic taps into a big market. In Europe alone, it is estimated that organic sales will continue to grow by 20% each year.<sup>2</sup> While the definition of what is organic can vary, it generally encompasses chemical-free farming practices, but can also be extended to cover other positive food terms including ‘cage free’ or ‘natural’, which can add to the organic confusion.<sup>2</sup> Marketing a product as organic attracts consumers and can even convince them to pay a premium price tag because higher prices tend to be associated with better quality. When a product is labelled organic, even if that food is heavily processed - as consumers associate ‘organic’ with a healthy diet of food containing superior nutritional qualities. But this may not always be backed up by science.<sup>1,3</sup>

### WHY PEOPLE BUY ORGANIC FOOD

The main priorities that have been identified as influencing people’s choice of organic, are health implications, improved product quality and concerns about the environment.<sup>3</sup> Characteristics of people who regularly purchase organic products include values of altruism (relationship with others), sustainable environments, protection of the welfare of people and nature, spirituality and self-direction.<sup>1,2</sup> As a result, organic food consumption is often linked to so-called alternative



lifestyles including vegetarianism, active environmentalism and alternative medicine.<sup>2</sup> However, organic fruit and vegetable purchases do not seem to be habitual for most consumers; one study discovered that 84% of organic sales came from 23% of customers.<sup>3</sup> Beyond health implications, one of the most important criteria for consumers who purchase organic food, is because it reportedly tastes better.<sup>2</sup> Although blind taste test trials have had mixed results comparing organic to non-organic fruits and vegetables.

A gap has been found between perceptions that organic produce is superior and actual purchases, which may be reflected by limited availability and the higher price tag associated with organic. People are more likely to purchase organic foods if they come from a higher socio-economic background and are more affluent.<sup>1</sup>

### HEALTH IMPLICATIONS OF ORGANIC FOOD

Improved health for individuals, as well as their families, as a direct result of eating organic food, is the main reason people choose to buy organic foods.<sup>1,2</sup> Many consumers are convinced that organic food is always healthier and more nutritious, despite little conclusive scientific evidence to back up the claims. The Food Standards Agency in the UK concluded that there was ‘no evidence of a health benefit from consuming

organic compared to conventionally produced foodstuffs'.<sup>4</sup>

Organic foods are typically marketed as more nutritious, containing greater amounts of vitamins, minerals and antioxidants. This has been extensively studied in the literature, yet there is little evidence to justify these claims. Nutritional differences are typically subtle and may have negligible impact on actual dietary intake.

Earlier this year a study was released stating that organic milk and meat products contained 50% more omega-3 than conventional produce.<sup>5</sup> However, this was primarily found within the fat content of the milk, which typically would not provide large amounts to the diet. Incorporating other dietary sources of omega-3 would provide a better impact on omega-3 status for an individual. Interestingly, organically produced milk was found to be lower in iodine than traditionally farmed milk - something worth considering in a society that has increasing levels of iodine deficiency.<sup>6</sup> In the case of milk and meat products, the nutritional differences observed between organic and non-organic produce relates to the animal feed and not necessarily the farming practice.

In 2012 a systematic review evaluating the results of 17 human studies and 223 nutrient studies concluded that there "lacked strong evidence that organic foods are significantly more nutritious than conventional foods".<sup>7</sup>

## ENVIRONMENTAL CONSIDERATIONS OF ORGANIC FOOD

Many consumers choose organic products as they believe they will be free from pesticides and chemicals. However, an organic label doesn't guarantee that no pesticides were used during the farming process.

Baranski et al found that organic produce had a 30% lower risk of pesticide contamination compared to conventional fruits and vegetables, but were not necessarily 100% pesticide-free.<sup>8</sup> So, while the research supports any claims that organic produce is lower in pesticides, organic fruits and vegetables aren't necessarily pesticide-free. Some consumers choose organic because they associate it with better animal welfare.<sup>2</sup>

## CONCLUSION

While there are some subtle differences observed between organic and non-organic produce in terms of superior nutritional content and reduced pesticide levels, the evidence is not strong enough to make recommendations that all individuals start purchasing organic produce. Food marketing can often play upon the perceptions that organic is a healthier option. Although in the case of processed foods this may not be true. The hefty price tag that typically accompanies organic produce may be a barrier and it would be more practical to look at improving the overall fruit and vegetable intake of the population by any method before singling out organic over traditionally farmed produce.

### *Comment from the editor*

The organic label does have some credibility and shows that a food has been produced or farmed in a certain way. 'Organic' is regulated by the UK Government and the EU. Without official certification, farmers or producers can't claim that a product is organic. The conversion of conventional farming to organic farming is supported in the UK and farmers and producers can apply for support grants and funding to achieve this. Once the conversion has been made official certification must be obtained for the term 'organic' to be used. Information about this can be found at [www.gov.uk/guidance/organic-farming-how-to-get-certification-and-apply-for-funding](http://www.gov.uk/guidance/organic-farming-how-to-get-certification-and-apply-for-funding)

Whilst organic food has an image of being healthier than non-organic food, or even possessing 'super food' properties, and because it is marketed as fully natural, pesticide free, 'as nature intended' etc, this is not necessarily the case. Organic farming or food production simply means this:

- avoiding artificial fertilisers and pesticides;
- using crop rotation and other forms of husbandry to maintain soil fertility;
- controlling weeds, pesticides and diseases using husbandry techniques and where necessary approved materials to control pests and diseases;
- using a limited number of approved products and substances where necessary in the processing of organic food.

We plan to look into the nutritional implications of organic food in more detail in a future issue of *NHD*.