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## TRENDS IN DAIRY FATS WITH A FOCUS ON YOGHURT

**When I was a newly qualified dietitian in the 1990s, the demon nutrients were definitely saturated fat and sugar. Now, more than a quarter of a century later, sugar is still on the hit list, but saturated fat seems to be heading for a reprieve. A beneficiary of this revised thinking is dairy, with milk and yoghurt emerging as healthier options whether or not they are fat-free. This article will look at the thinking behind this interesting trend and highlight research on yoghurt.**



The hypothesis that saturated fat was a causative factor in cardiovascular disease (CVD) arose in the 1970s with the publication of the Seven Countries Study.<sup>1</sup> This multi-centred longitudinal survey found statistically significant associations between CVD risk and serum cholesterol, leading to total and saturated fat being identified as likely risk factors. Keys' hypotheses were later criticised, as they were based solely on observational findings and failed to account for potential confounders, such as trans fats and sugars. Some scientists claimed that Keys had pre-selected a limited range of countries that proved his hypothesis. Indeed, subsequent studies found that subjects with a similar serum cholesterol level nevertheless had widely different CVD outcomes,<sup>2</sup> suggesting an indirect or non-causative relationship between serum cholesterol and CVD risk.

This has been confirmed in subsequent studies such as the Minnesota Coronary Survey<sup>3</sup> which tested the efficacy of a reduced saturated fat/reduced cholesterol diet on a randomised sample of 4,393 institutionalised adults over a 4.5 year period. Despite a fall in serum cholesterol in the reduced fat group, there were no significant changes in the incidence of myocardial infarctions, sudden deaths, or all-cause mortality. A meta-analysis found

contradictory evidence for the apparent CVD benefits of dietary fat reduction, except when polyunsaturated fat was increased at the expense of saturated fat.<sup>4</sup> More recently, a Cochrane analysis concluded that, while saturated fat reduction lowered the cardiovascular events by 17%, the impact on total and cardiovascular mortality was less clear and statistically non-significant in many cases.<sup>5</sup>

### DAIRY BENEFITS

Once branded as a high fat food category to eat with caution, dairy has been revolutionised as a result of processing techniques which allow varying amounts of fat to be removed, as well as growing evidence that the types of fatty acids in dairy foods may not pose a major health risk. Emerging research on dairy protein and satiety has indicated potential weight management benefits.

Saturated fat is a collective term for more than 30 individual fatty acids with single bonds in their chemical structure. Around 60% of the fatty acids in dairy foods are saturated with the most predominant being palmitic acid (16:0; making up 30% of the fatty acids), myristic acid (14:0) and stearic acid (18:0). Uniquely among animal foods, milk fats exist as globules with an oil-in-water emulsion, which may influence