



## **Dairy Council for Northern Ireland Lecture 2019 30<sup>th</sup> Anniversary Symposium**

**A review of dairy's role in cardiometabolic health – where are we now?**

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The global prevalence of cardiovascular disease (CVD) is predicted to escalate substantially over the next decade, due to the increasing ageing population and rise in obesity. One preventive strategy for reducing this burden of CVD risk includes limiting intake of saturated fatty acids (SFA). As major sources of SFA in the British and Irish diet, milk and dairy products are common targets for SFA reduction. This presentation will examine the evidence to suggest that focusing on the potentially adverse effect of a single nutrient such as SFA in milk and other dairy foods, overlooks the important role of these nutrient dense foods in a healthy diet. Review of the existing evidence for the impact of milk and dairy consumption on risk factors for CVD, reveals a higher intake of fermented dairy intake to be associated with a marginally lower CVD risk, with milk intake being inversely related with the risk of stroke. Moreover, the consumption of dairy, and circulating levels of plasma dairy fatty acids (such as odd chain SFA and trans-palmitoleic acid) have been linked to a lower risk of developing Type-2 diabetes, a disease which is major cause of premature CVD with exponential growth worldwide.

The presentation will also address the impact of dairy consumption on cardiometabolic risk factors, including dyslipidaemia, hypertension and glucose intolerance, and evidence to suggest that a higher dairy intake can influence these CVD risk factors. These apparent benefits of milk and dairy foods to cardiometabolic health have been attributed to the impact of specific components within dairy, such as proteins, bioactive peptides and calcium. Despite dairy being a major source of SFA, these findings suggest that limiting intake of milk and other dairy foods may not be the optimum strategy for CVD risk reduction. Another potential option is to manipulate the fatty acid profile of ruminant milk to reduce its SFA content, without altering the other components of dairy. While the body of evidence to support cardioprotective effects of dairy continues to increase, it is still unclear why different dairy foods, especially fermented products, exert differential effects on CVD risk factors. Well designed and adequately powered studies are needed to provide clearer evidence, not only for the mechanisms underlying the effects of dairy, but also how they may be manipulated during milk production and processing.