

Food processing linked to an increase in type 2 diabetes

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Modern methods of food production and processing have contributed to a dramatic escalation of type 2 diabetes diagnoses in Australia and the associated financial cost is expected to double to more than \$2 billion by 2025.

An estimated 25 per cent of Australians aged over 25 years have prediabetes or diabetes. Studies led by Associate Professor Barbora de Courten from Monash University in collaboration with Professor Josephine Forbes from the University of Queensland, have linked the

widespread heat processing of foods to a worsening in insulin sensitivity and the development of type 2 diabetes.

Heat processing is used in [food](#) to increase shelf life, sterility and flavour, creating Advanced Glycation End-products (AGEs). Food preparation methods such as roasting, frying, baking or grilling all produce more AGEs in foods whereas boiling or steaming produces fewer AGEs.

Associate Professor de Courten said long-term dietary intake of AGEs worsens insulin [sensitivity](#) and increases the likelihood of the development of type 2 diabetes.

"Our study demonstrated that consumption of a low AGE diet results in lower urinary AGE concentrations and improved [insulin sensitivity](#) when compared to a diet high in AGEs," Professor de Courten said.

Type 2 diabetes is not only a major threat to [public health](#), but also an increasing burden on the economy. In Australia, direct healthcare costs for type 2 diabetes are currently estimated at \$1.1 billion a year, with the prospect of that figure doubling by 2025.

"These findings have important public health implications," Professor de Courten said.

"Now important studies are needed to confirm that lower dietary AGE consumption can reduce the incidence of type 2 [diabetes](#) diagnoses, and help relieve pressure on the healthcare budget."

Researchers intend to continue to test their findings in larger scale and longer term clinical studies.

Provided by Monash University

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