

Research continues to support the role of eggs in a healthy diet for diabetes



Publication:

20 November 2020

Reading time:

4 minutes



Eggs are widely recognised as one of nature’s most nutritious foods and as a key source of quality protein with 13 important nutrients required by the body. The current body of research evidence confirms that as part of a healthy and balanced diet, eggs can be enjoyed by individuals living with, or are at risk of, diabetes.

Recently published research in Chinese adults has observed an association between higher, long term egg intake and the risk of developing type 2 diabetes. These findings have stimulated interest in whether caution in egg intake is needed¹.

In response to renewed interest in the role that eggs play in a healthy diet, Australian Eggs consultant dietitian from Food & Nutrition Australia Sharon Natoli, sets out the current key facts and research findings.

“Rates of type 2 diabetes are on the rise globally making this an important area of study. In Australia, the Baker IDI Heart and Diabetes Institutes attributes increased prevalence to be likely driven by rising obesity, the ageing population, dietary changes, and sedentary lifestyles². Body mass index (BMI), alcohol consumption and physical inactivity have been specifically identified as significant lifestyle risk factors impacting the development of type 2 diabetes in Australian adults³” says Sharon.

Eggs as part of a healthy and balanced diet

Sharon says, “When it comes to diet and consideration of the broader evidence in this space, the National Health & Medical Research Council, recommend eggs as part of a healthy dietary pattern and lifestyle⁴.”

In 2020, a systematic review and meta-analysis by Harvard University researchers explored the existing body of evidence and found no association between moderate egg intake and the development of type 2 diabetes⁵. Furthermore, egg intake of 1 or more eggs per day was not associated with the development of type 2 diabetes in Asian populations (70,468 study participants)⁵.

Recent studies in diabetes

Well-designed intervention trials have indicated that individuals with, or at risk of type 2 diabetes can include 6 to 12 eggs per week as part of an overall healthy diet⁶. In 2018, researchers at Sydney University undertook a 12-month randomized controlled trial exploring egg intake in individuals with or at-risk of type 2 diabetes.

Known as the DIABEGG study, participants consumed at least 12 eggs per week for 12 months, with no detrimental outcomes on heart disease risk factors or blood glucose levels⁷. These findings are in line with advice from the Australian Dietary Guidelines that eggs can be included as a core part of the everyday diet of Australians⁴.

Single observational studies, such as the recent one by Wang and others, continue to provide important insights in nutrition, highlighting possible relationships between nutrients, individual foods and dietary patterns with chronic disease development. It does, however remain imperative that we look not only to the wider body of evidence, but also remember that it is the entirety of what we eat and what we do that will affect our overall health and wellbeing.

References

1. Wang Y, Li M, Shi Z. Higher egg consumption associated with increased risk of diabetes in Chinese adults - China Health and Nutrition Survey. *Br J Nutr*. 2020 Oct 8;1-8. doi: 10.1017/S0007114520003955. Epub ahead of print. PMID: 33028452.
2. Shaw, J. & Tanamas, S. Diabetes: the silent pandemic and its impact on Australia. (Baker IDI Heart and Diabetes Institute, Melbourne, VIC, Australia, 2012).
3. Li, J. & Kinfu, Y. Impact of socioeconomic and risk factors on cardiovascular disease and type II diabetes in Australia: comparison of results from longitudinal and cross-sectional designs. *BMJ Open* 6, e010215 (2016).
4. National Health and Medical Research Council. Australian Dietary Guidelines. (ed. National Health and Medical Research Council) (NHMRC, Canberra, ACT, Australia, 2013).
5. Drouin-Chartier JP, Schwab AL, Chen S, Li Y, Sacks FM, Rosner B, Manson JE, Willett WC, Stampfer MJ, Hu FB, Bhupathiraju SN. Egg consumption and risk of type 2 diabetes: findings from 3 large US cohort studies of men and women and a systematic review and meta-analysis of prospective cohort studies. *Am J Clin Nutr*. 2020 Sep 1;112(3):619-630. doi: 10.1093/ajcn/nqaa115. PMID: 32453379; PMCID: PMC7458776.
6. Richard C, Cristall L, Fleming E, Lewis ED, Ricupero M, Jacobs RL, Field CJ. Impact of Egg Consumption on Cardiovascular Risk Factors in Individuals with Type 2 Diabetes and at Risk for Developing Diabetes: A Systematic Review of Randomized Nutritional Intervention Studies. *Can J Diabetes*. 2017 Aug;41(4):453-463. doi: 10.1016/j.jcjd.2016.12.002. Epub 2017 Mar 27. PMID: 28359773.
7. Fuller, N.R., et al. Effect of a high-egg diet on cardiometabolic risk factors in people with type 2 diabetes: the Diabetes and Egg (DIABEGG) Study—randomized weight-loss and follow-up phase. *Am J Clin Nutr* [Epub ahead of print], nqy048-nqy048 (2018).