

Does gluten prevent type 2 diabetes? Probably not

March 14, 2017 4.07pm AEDT

Reports gluten can prevent type 2 diabetes come from a study that didn't really prove this. from www.shutterstock.com.au

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A recent [analysis](#) of a massive study observing the effect of food on the health of nearly 200,000 American health professionals suggested eating more gluten was associated with a [lower risk](#) of type 2 diabetes.

But is it really this simple?

Can gluten be linked to diabetes?

A considerable amount of published research has looked at the potential links between coeliac disease and type 1 diabetes (a chronic condition where the pancreas produces little or no insulin). This has led to the discovery that they often share similar genetic markers [linked to the immune system](#).

Another recent study found that although coeliac disease was more common in people with type 1 diabetes there were [no more cases](#) of coeliac disease in people with type 2 diabetes (which usually presents in adulthood, and is typically associated with lifestyle factors) than the general population.

However, while studies in animals suggest gluten may increase risk of developing type 1 diabetes, human studies do not. A large review investigating when infants are first given gluten and their risk of developing type 1 diabetes found no link, unless infants were fed solids in their first three months, which is much younger than the six months recommended by the World Health Organisation.

And in animal studies of type 2 diabetes, it has been suggested gluten may increase the risk of developing diabetes.

How reliable are the study results?

Mice studies are interesting, but we need to look at data from people. This is typically done in either clinical trials, which can assess causality (that one thing caused the other), or by observing groups, which identify associations only (two things happened together, but one didn't necessarily cause the other).

This new study fits into the latter. The study looked at data from three big studies that started 40 years ago with the Nurses' Health Study, and continued with Nurses' Health Study II (1989) and Health Professionals Follow Up Study (1986). These looked at the effect of nutrition on long-term health.

The latest news, suggesting gluten may lower risk of type 2 diabetes, was reported at an American Heart Association conference last week. The full research paper is not readily available, so we have to rely on a press release from the AHA.

This reported that the 20% of people with the highest intake of gluten had a 13% lower risk of developing type 2 diabetes compared to those eating less than 4g a day (which is equivalent to less than two slices of bread).



Foods that contain gluten often also contain other good things. from www.shutterstock.com

So, it could seem that gluten intake is protective against developing type 2 diabetes.

However, a more likely explanation could be that this is an effect of other things in foods that also contain gluten. Perhaps, eating wholegrains - including wheat, barley and rye could be responsible for the reported results. They are key dietary sources of gluten and are rich in fibre and a number of vitamins (such as vitamin E) and minerals (such as magnesium).

Evidence of this can be seen in an earlier analysis of the same data, which found that those consuming the most wholegrain had a 27% reduced risk of developing type 2 diabetes.

It's also plausible that the foods people were eating that didn't contain gluten were more likely to be discretionary foods, such as French fries, and that could be a factor. This was also seen in another analysis of this data, which found the highest consumers of French fries had a 21% increased risk of developing type 2 diabetes.

Avoiding gluten can mean losing important nutrients

So, any conclusions regarding effects of gluten in prevention of type 2 diabetes cannot be drawn from this study. The authors acknowledge this in the conference media release. The observed effect is likely to be related to other factors in foods consumed or not consumed.

The study also suggests that for people who do not have a clinical reason to avoid gluten (such as coeliac disease, wheat allergy or other gluten sensitivities), restricting the intake of foods that could have other benefits can be harmful. They need to look for replacement sources of fibre and other nutrients.

Avoiding gluten is an increasing trend, possibly linked to media attention associated with popular alternative dietary messages such as “[paleo](#)”, or following the latest fad diets observed in celebrities and athletes. This may not be a problem if nutrients are replaced by other foods. But that can be challenging, particularly if there are diet or food restrictions in such plans.

To get the best out of this way of eating, it's important to have a comprehensive understanding of diet and nutrition, which may require a visit to a dietitian or other healthcare professional.

Including foods containing gluten, unless you have a medical reason to exclude them, can be the simplest way to benefit from the fibre and other nutrients they contain. If you wish to remove gluten from your diet, you should look to include healthy, naturally gluten-free grains such as quinoa or buckwheat.

Although this study is interesting, it's important to remember that without a medical reason, going gluten free is unlikely to result in any therapeutic benefits. But if you do, you need to ensure you don't replace these foods with [discretionary foods](#) high in fat, salt and sugar.



[Diabetes](#) [Coeliac disease](#) [Gluten](#) [Gluten avoidance](#)