When an unpublished study morphs into a health headline, you can pretty safely assume what you are about to read can be taken with a huge pinch of salt.

So when an insider.com article claims that “vegan diets lead to weight loss by boosting gut bacteria, researchers found” it’s pertinent to point out how little there is to actually know about the study in question, since it wasn’t a published paper but rather a conference abstract presented at the Annual Meeting of the European Association for the Study of Diabetes (16-20 September 2019).

Entitled “Changes in gut microbiota in response to a plant-based diet are related to changes in weight, body composition, and insulin sensitivity: What we do know?” was a preliminary investigation in which 147 participants (86% women and 14% men, average age mid-fifties) were randomized to either follow what the authors describe as a “low-fat vegan diet”, or continue with their habitual one.

Following the 16-week study, those in the vegan group lost an average of 5.8 kilos, due largely to a reduction in fat mass and visceral fat, and also had a significant improvement in insulin sensitivity. Alongside, the vegans had significant changes in the composition of their gut bacteria.

There’s no reason to have any particular, er, beef with the researchers who acknowledge the limitations of their study.

However, it’s simply not possible to attribute the improvements in body weight and metabolic
health to the changes in gut microbial flora as implied by some of the media coverage.

For a start, the study was uncontrolled; the control group did not have their calorie intake restricted to match that the vegan group achieved. There’s also no detail given us on the composition of the vegan diet, other than it was “low fat”, which might also read “less energy-dense”.

What we can say with a good degree of confidence was that it will have been this lower calorie intake (from eating low energy density food) that led to the weight loss, not the vegan-ness or otherwise of the diet.

Similarly, there’s no magic to the noted improvements in insulin sensitivity – weight loss will almost always produce an improvement in insulin sensitivity regardless of the type of diet eaten to achieve that weight loss.

In addition, the vegan diet will almost certainly have provided more fiber than the habitual diet, and it is this that will have led to the changes in gut bacteria (this general effect of fiber on gut microbes has been observed and studied many times before, so this is nothing new).

What the study does seem to illustrate, at least as much as it illustrates anything else, is that a calorie-restricted diet high in carbohydrates (presumably unrefined) is of benefit for people at risk of diabetes. That’s opposite to the misplaced public perception - fueled by the vociferous low carb high fat (LCHF) lobby - that high carbohydrate diets are the cause of diabetes.

The authors are promising to come back with a further study, which will separate out the positive effects of the reduced calories in the diet from those caused by the vegan composition of the diet.

This would involve comparing the effects of a vegan on the microbiome with a standard diet that is calorie-controlled. At that point, we may then at least be looking at a study from which some more informed observations could be made.