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## **Field**

## Why breakfast is not the most important meal of the day: Another myth bites the dust!

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## **ABSTRACT**

There has been a widespread belief that eating breakfast is central to tackling overweight and obesity, one of our major medical and public health challenges. We examined the international literature and, after combining the results in a meta-analysis, found that is not advisable to change a person's diet, forcing breakfast in order to lose weight.



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How many time have you heard 'Breakfast is the most important meal of the day'? This view is so pervasive that to admit to not eating breakfast is almost tantamount to admitting to a non-healthy behaviour!

I am a rheumatologist and many of my patients seek help for their weight as part of the management of their joint problems. I have been struck by how many are advised to eat breakfast as part of their obesity management plan. Some have even complained that they have to force themselves to eat breakfast. To eat when you are not hungry, especially if you are trying to lose weight, never made sense to me. For that reason we decided to look at the evidence for breakfast eating and obesity.

What is the basis for the belief in breakfast eating and prevention of obesity?

Most previous studies examining breakfast eating and obesity have been 'observational studies.' In observational studies, people are followed and their behaviors such as breakfast eating and then their weight are assessed. The problem with observational studies is that it may be the individual's wider healthy lifestyle and food choices, not breakfast eating, that results in weight benefits. The best way to examine the effect of breakfast and take into





account differences between people is to do an experiment, also known as a clinical trial. In a clinical trial you take a group of people and randomly ask one group to eat breakfast while the other group skips breakfast. This then allows us to compare people who are otherwise very similar except in whether they eat breakfast or not.

In our study, we examined all the clinical trials that have been performed in adults to address the breakfast and obesity question. We found 13 clinical trials and performed a meta-analysis which is a way to combine the results of all the studies.

We found that those who had breakfast ate about 260 extra calories per day and gained an average of 0.44 kg over 7 weeks. We found this to be the case regardless of whether a person was a regular breakfast eater or not. We also found no evidence to support the belief that people who ate breakfast ate less later in the day.

We did not examine whether a healthy breakfast, for example with cereal, was better than a less healthy breakfast, for example, eggs and bacon. In our study, we focused on the overall effect on weight and calorie intake. If we consider obesity, it is important to keep in mind that a calorie is a calorie whether it comes from a healthy or unhealthy source. Someone once reminded me that gorillas in the zoo are vegetarian!

We concluded that there isn't a 'one size fits all' answer to breakfast eating. Some people feel the need to eat breakfast, some don't. The key message

is that we should not change a person's diet to include breakfast in order to lose weight. This has the potential to have the opposite effect! If someone likes to eat breakfast, we are not suggesting that they should stop having breakfast. Furthermore, we found no evidence that eating breakfast reduced food intake later in the day or that food eaten at breakfast is metabolized more efficiently. Unfortunately, a croissant eaten at breakfast has the same effect on the waistline as a croissant eaten later in the day!

There are some people in whom breakfast eating may be advisable and this needs to be considered in any recommendations. For example, children are growing and need to concentrate at school so it makes sense to encourage them to eat before school so they are not hungry during classes. Also, those taking medications for diabetes may be to spread their meals over the day.

Obesity is a major medical and public health challenge. We are not winning. The advice many of our patients are getting regarding eating breakfast, although well-meaning, may have the opposite effect. We need to challenge our health-related beliefs if we are to tackle obesity in the community. This will be very important as obesity is a major contributor to many of the chronic medical conditions that result in death and disability in our communities including cardiovascular, diabetes and joint diseases. The aim is to improve health outcomes. We should replace myths with evidence.