



Meet Dr. Tim Spector

Tim Spector is a Professor of Genetic Epidemiology and Director of the TwinsUK Registry at Kings College, London and has recently been elected to the prestigious Fellowship of the Academy of Medical Sciences. He trained originally in rheumatology and epidemiology.

In 1992 he moved into genetic epidemiology and founded the UK Twins Registry, of 13,000 twins, which is the richest collection of genotypic and phenotypic information worldwide. He is past President of the International Society of Twin Studies, directs the European Twin Registry Consortium (Discotwin) and collaborates with over 120 centres worldwide. He has demonstrated the genetic basis of a wide range of common complex traits, many previously thought to be mainly due to ageing and environment. Through genetic association studies (GWAS), his group have found over 500 novel gene loci in over 50 disease areas.

He has published over 800 research articles and is ranked as being in the top 1% of the world's most cited scientists by Thomson-Reuters. He held a prestigious European Research Council senior investigator award in epigenetics and is a NIHR Senior Investigator.

His current work focuses on omics and the microbiome and directs the crowdfunded British Gut microbiome project. Together with an international team of leading scientists, including researchers from King's College London, Massachusetts General Hospital, Tufts University, Stanford University and nutritional science company **ZOE**, he is conducting the largest scientific nutrition research project, showing that individual responses to the same foods are unique, even between identical twins.

In his newest book, *Spoon-Fed*, Dr. Spector confronts the advice we're given about what we should and shouldn't eat. Though new scientific discoveries are announced every day, the more we are told about nutrition, the less we seem to understand.

Through his pioneering scientific research, Tim Spector has been shocked to discover how little good evidence there is for many of our most deep-rooted ideas about food. In a series of short, myth-busting chapters, *Spoon-Fed* reveals why almost everything we've been told about food is wrong.

Spoon-Fed is a groundbreaking book that forces us to question every diet plan, official recommendation, miracle cure or food label we encounter, and encourages us to rethink our whole relationship with food. Diet may be the most important medicine we all possess. We urgently need to learn how best to use it, not just for our health as individuals, but for the future of the planet.





The myth

The idea that eating breakfast in the morning is the key to improving energy, concentration and mood throughout the day is a mantra ingrained in most of us from an early age.

There are certain ideas about breakfast that are so widely accepted, most people don't ever think to question them. For example, that breakfast somehow 'kickstarts' our metabolism in the morning, allowing us to eat more efficiently later in the day, as well as the idea that skipping breakfast makes you much hungrier later in the day so you overeat and put on weight.



What the science says

A systematic review and meta-analysis of breakfast-skipping studies was published in the *BMJ* in 2019. The data showed there's no evidence to support the claim that skipping meals makes you put on weight or adversely lowers your metabolism. In fact, data showed that skipping breakfast could actually be a useful way to reduce weight.

What you can do

There is no 'one size fits all' when it comes to nutrition. This is an important concept that motivated Dr. Spector to start the personalized nutrition company -- ZOE. There's also no 'one size fits all' regarding the question of if and when you should eat breakfast. There is certainly no harm in skipping breakfast and I would recommend everyone try some experiments of their own to see how they feel without breakfast, both in short-term mood and energy, and longer term in weight loss or gain after a month.





The myth

Calories in, calories out — this simple rubric defines the weight-loss strategy for hundreds of millions of people across the world. Although we can accurately measure the calorific value of a meal, the relationship between those calories and our body is much less straightforward.

And in fact, as we gain a better understanding of the different components of food and how they interact together, some calorie-content estimates are emerging as inaccurate or outright wrong. For example, the rate of energy released from a cheese sandwich may be different from the value of the cheese and bread measured separately.



What the science says

We know that metabolic rates vary, but other factors, such as the length of our intestines, play major roles. And genetic differences can make some of us extract more energy (in the form of sugar) from starchy carbohydrates like potatoes or pasta. Another factor that can lead to huge variation in our digestion is the makeup of our unique gut microbiomes.

Habits matter, too: Studies are now showing that we put on less weight eating identical calories if they're consumed within an 8- to 10-hour window rather than grazing all day.

What you can do

We're not cars with a fuel gauge; we are far more complex and intricate, and rather than basing our decisions about what to eat on a universal, arbitrary and often inaccurate number, we need to learn to understand our individual bodies and what they need. Strike another point for personalized nutrition!



Drinking coffee is bad for our health

The myth

We've been told that coffee is linked with poor sleep, heart disease and even cancer.

For example, you may have heard about acrylamide, which is produced in small quantities when coffee beans are roasted. In high quantities in rodents it's been linked to cancer.

Of course, caffeine is a powerful chemical and some individuals are naturally more sensitive to it. But is coffee really bad for us?



What the science says

Here's a snapshot of some data (I share much more in my book):

One analysis of 36 studies found that moderate coffee consumption (3.5 cups per day) actually reduced the risk of heart disease.

Like hundreds of other commonly consumed chemicals, acrylamide is classified as a carcinogen that could potentially cause cancer if consumed in high amounts. But the relevance of the research (all done on rats given massive doses) to humans is weak.

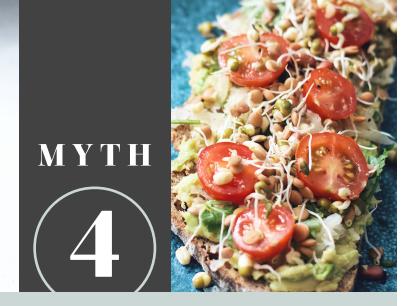
As for coffee keeping you up at night: On average, caffeine levels increase 30 minutes after drinking coffee, peak in 2 hours, and disappear after 4 to 7 hours.

In an analysis of connections between dietary choices and gut microbiome patterns, Dr.

Spector and researchers at **ZOE** found a powerful association between coffee consumption and Lawsonibacter asaccharolyticus. This is a butyrate-producing microbe, indicating that some of the benefits of coffee consumption may come from changes to our gut microbiome.

What you can do

In moderate amounts, tea and coffee don't do
us any harm and there's increasing evidence
they're good for us. Coffee isn't just about caffeine;
it contains some fiber and it's packed with
polyphenols, which are known to have gut health
benefits. But everyone's tolerance is different. If
you're sensitive, reduce your consumption or stick to
decaf (which actually does contain small amounts
of caffeine).



Gluten is dangerous

The myth

Gluten is a protein found in many of the grains typical in most of the world's diets. True allergy to gluten is rare

— so where did all the fear surrounding it come from?

In 2013, a study conducted on rodents showed a correlation between a high-gluten diet and weight gain. There has also been a spate of pseudo-scientific diet books that lambast gluten as unhealthy, unnatural and bad for our bodies.

The wealth of misinformation from food companies, celebrities, influencers and health gurus has led to the rise in popularity of gluten-free and low-gluten diets (the market is currently worth \$17 billion globally and growing 10% a year). Enormous profits are at stake.

What the science says

A few facts on gluten:

Less than 1% of the population must avoid gluten because of a medical diagnosis of celiac disease or a wheat allergy.

A study of 100,000 U.S. health professionals over 26 years found that long-term intake of gluten is not associated with increased risk of heart disease.

A 2015 study followed 392 self-reported sufferers of gluten intolerance for 2 years, asking them to cut out gluten and then reintroduce it. The results: 6% had evidence of celiac disease, 7% met criteria for non-celiac gluten sensitivity, and 1 in 200 had a rare wheat allergy.

Gluten-free diets can lead to nutritional problems for some people, because gluten-free foods are typically lacking in vitamin B12, folate, zinc, magnesium, selenium and calcium.

What you can do

If you experiment and change your diet, be aware that any benefits are unlikely to be due to the gluten itself (unless you have a diagnosis of celiac disease or wheat allergy). Large-scale studies suggest that, if anything, eating whole grains is associated with a lower risk of health problems and obesity. As part of their research, Dr. Spector and scientists at **ZOE** found that whole grain consumption as a part of a healthy dietary pattern was strongly associated with the presence of beneficial gut microbes. Whole grains include barley, brown rice, millet, buckwheat, oatmeal, bulgur and popcorn.



Exercise will make you thin

The myth

We're told that one of the main reasons we've all gotten fatter over the past 30 years is that we have become lazy and don't exercise enough. The exercise message is aimed at people of all ages: go to the gym, walk more, play more sport and expend calories, and your metabolism will improve and the weight will melt away.



What the science says

A number of trials have clearly shown that weight loss is much greater in dieting groups than the exercise groups, and exercise only works to any degree if you eat less at the same time.

There are multiple reasons why exercise doesn't have the dramatic effect we expect. The first is that our expectations are too high. Most of our energy expenditure is predetermined and hard to change — only about 10% of it can be manipulated for most people.

There's no scientific basis for the popular 10,000-steps-a-day goal. A Japanese pedometer company came up with it before the Tokyo Olympics in 1964 to stop people being lazy.

What you can do

Although there is no evidence that exercise in normal amounts helps weight loss in most people, there is good evidence that it's invaluable for many other common conditions and should arguably be our number-one prescribed drug. It reduces the risk of diabetes, reduces heart disease, and reduces blood pressure and blood fat. Smaller studies also show that it can help depression and reduce dementia.

There's a lot more of where this came from in
Tim Spector's new book, Spoon-Fed: Why Almost
Everything We've Been Told About Food Is Wrong.
He tackles 22 myths, diving into the research and
examining the many reasons each myth took hold.

BUY SPOON-FED HERE



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