Diet: A very good way to eat what’s good for you and lose weight, but the decent ones are drowning in reams of conflicting advice, dodgy nutrition claims and self-styled gurus in newspapers, lifestyle magazines and all over your Facebook feed. Asking for evidence can help to distinguish the bogus from the beneficial, and there are a few rules of thumb that can help you weigh up new diet fads (eg unless you’re in extreme training, you probably don’t need a high protein diet; and unless you’re pregnant or seriously ill, you are unlikely to need a daily regime of vitamin supplements).

But we need to make more of a fuss about all the silly stuff because it isn’t without consequence – people actually introduce malnutrition through overly restricted diets, they buy expensive products and exotic foods, and they lose heart following unsustainable diets when they need to make a significant health change.

So, to make more of a public fuss about the stream of fad diets, our Voice of Young Science network has completely made up five of their own and we’ve mixed them up with five ‘real’ diets that have been doing the rounds. Can you tell the spoofs from those lacking in proof*?

We’ve also teamed up with relevant specialists in our Voice of Young Science network to give you their opinions on all ten diets – and share some things to remember when you see similar claims in the future.

Extraordinary claims need extraordinary evidence: Can you tell what diets are good for you and what’s good for a laugh?

All Dairy Diet

Have you heard of the 'All Dairy Diet'? Eat only dairy products - yoghurt, cheese, milk, even ice cream - for three weeks to rebalance your system and shed weight. Dairy has all the protein, carbs, fats, and vitamins your body needs. Studies have shown that diets containing dairy helped participants lose more weight, so you can just imagine the effects if all you’re eating is dairy!

Alison Clark, Registered Dietitian

“Well, while we know that dairy does contribute to a healthy balanced diet, it lacks essential nutrients for optimal health and wellbeing. Where is your source of omega-3? And your fibre? Whilst dairy is part of a healthy balanced diet, the diet should not be taken to the extreme with nothing else included – remember, everything in moderation!”
**Paleo Diet**

Eat like a caveman! Only eat foods eaten in prehistoric times: Berries, vegetables and a little lean meat. No cereals, beans, dairy or pasta.

Erika Nitsch, Archaeologist

“The Paleo Diet’s premise is that it is best for humans to eat only those foods to which our ancestors were evolutionarily adapted, but this is problematic. For example it forbids the consumption of dairy products, but many European-descended people today carry a genetic modification making it possible to digest milk lactose. But if you are worried about eating a healthy diet, perhaps skip the Mars bar.”

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**Microbe-Assisted Dieting (M.A.D.)**

You’ve heard of products containing good bacteria that help settle your digestive system. M.A.D. products are designed not just to soothe your digestive system, but to prime it so that you only digest what you need. Take one of our delicious M.A.D. yoghurt shots before every meal and the bacteria will coat your stomach lining and regulate your fat and sugar intake. You can achieve your target weight while eating what you want and the bacteria will digest what you don’t want to!

Agnieszka Piotrowska, Microbiologist

“Our gastrointestinal tract is colonised by individual and complex microbiota. It consists of hundreds of different bacteria, archaea, yeasts and fungi. These organisms interact and compete with each other for nutrients to survive. Those we refer to as our ‘commensal flora’ in many cases allow us or help us to metabolise the food we eat. There are several studies that suggest that Lactobacillus has potential health benefits that include body weight control, and improvements from metabolic disorders, such as diabetes, obesity, hypercholesterolaemia, or hypertension. However, we cannot just regulate this complex microenvironment with some yoghurt with extra, who-knows-what bacteria added to it. It might not help at all and it can also cause imbalance and chaos in the gut. A well-balanced diet helps to keep our healthy commensal flora happy and to keep our gastrointestinal tract functioning as it should, so it digests what we eat in the most efficient way.”

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**Hormone Diet**

Target specific areas of your body by eating foods that influence hormones. Your love handles are from insulin resistance so eat less sugar to target that area; fat calves are from too little growth hormone – get more sleep! Big thighs are from high estrogen so cut down on painkillers, processed meat and coffee and that big tummy is from too much cortisol – eat little and often to balance this out.

Madeline Burke, Biochemist

“There is no evidence that links hormone synchronization and weight loss – it simply doesn’t exist. Some hormones are thought to regulate the amount of fat stored in the body but there is no evidence that shows eating certain foods can control hormone levels. Attempting to control hormones for the sake of weight loss could be very dangerous and I would not recommend it. You would also need to have your hormone levels tested, requiring a visit to the doctor for tests that are both expensive and invasive.”
**No Food Diet**

Eating food is a waste of time – why not drink a nutrient rich food 'substitute' instead?

*Rob Hagan, Biomolecular Scientist*

“It is not possible to have a food substitute that suits everyone all the time. Every individual needs nutrients in different amounts. These differences can be covered in a varied diet, but not with one single food. Even if the food substitute was tailored to an individual, you require different nutrients at certain times. And even if one single food could contain all the nutrition that we require, there are still problems with losing your enjoyment of food, which is associated with depression.”

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**Anti-Ageing Diet**

To stay looking youthful, get rid of all the sugar from your cupboards and your shopping list. That means no yoghurt, no ready-meals, no dessert, no pasta, no cakes and no biscuits. Eat plenty of oils, nuts and avocado for good fats, and add meat to your breakfast and lunch as proteins and amino acids are full of antioxidants. If you want to keep alcohol as part of your diet, organic wine is okay – but never more than three glasses.

*Leah Fitzsimmons, Biochemist*

“Cutting all sugar from your diet would not only be fatal, but also very difficult to achieve – fruits, vegetables, dairy products and dairy replacements, eggs, alcohol and nuts all contain sugar, which would leave you with little other than meat and fats to eat – definitely not very healthy!”

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**Thermostasis Diet**

Your body has to work hard to maintain its temperature, with this diet you will challenge your body with alternate days of hot and cold food and drink. Hot days include piping hot broths, teas and bikram yoga. Cold days mean no heating in your house and only eating food straight from the freezer with icy drinks. Giving your body this temperature challenge every day for two weeks will show significant results. For best results undertake this detox diet in winter.

*Fergus Guppy, Exercise Physiologist*

“Changes in ambient temperature do cause marked changes in your energy expenditure. When we are cold, we shiver, burning calories to generate heat. The type of food you eat, whether carbohydrate, protein or fat, does change your energy output – but there is limited evidence that the temperature of your food has any effect. Ultimately, whilst changing the temperature of your food might not help you lose weight, dropping the temperature of your thermostat might, provided you don’t compensate by putting on a jumper! Hot days could also make you lose weight, but the weight lost would be as a result of fluid loss and would lead to dehydration, so the weight loss would be reversed once fluid was replaced.”
**Depletion Diet**

Energy in food comes from the chemical bonds between the food molecules. This diet involves breaking as many of these bonds as possible before you eat the food. There are two ways to do this – heating the food at a high temperature and ageing the food for as long as possible. Both of these treatments break the bonds in food and the more bonds that have been broken, the fewer calories it contains.

**Kristian Le Vay, Biochemist**

“Cooking our food allows us to extract more energy (calories) from food – few chemical bonds are broken in this process. Heating something can break these bonds, but the amount of heat required would burn the food. Cooking at high temperatures for long periods of time is more likely to increase the calorific content of food whilst reducing the amount of important nutrients it contains and can have other risks, for example prolonged cooking in water can leach important nutrients. This diet would not be an effective way to lose weight and would be much unhealthier than a regular balanced diet.”

**Beans, Bananas and Belly Dancing Diet**

By simply eating one can of beans, two bananas and doing an hour session of belly dancing per day you will turn that flab into fab! Scientists have shown that by combining flatulence-inducing beans, with high fibre bananas you get a dramatic increase in bowel movement and gas production. This may sound undesirable but the more gas you shift the more weight you lose. Combine that with some intestine stimulating belly dancing and you’ll be shedding those pounds faster than you can say one, poo, three!

**Claire Marriott, Biomolecular Scientist**

“So, beans, bananas and belly dancing... an interesting strategy, but I’m not convinced! For a start if we’re talking baked beans in sauce then that’s a lot of sugar to be eating (20g per can); fine in moderation and yes a good source of protein and fibre but not every day. Plain beans or pulses have just a tenth of the sugar so are an even better option. The beans and banana combination could well have an effect on your digestion (how “dramatic” would depend on your current diet) but generally an increase in flatulence is considered as an unwanted side-effect of eating more fibre rather than part of the weight-loss strategy! Exercise is considered a good way to combat constipation and with so many other benefits there’s no harm in the advice to do more; belly dancing could certainly be a part of a healthy living plan and could be a lot of fun... plenty of other options would work just as well too though!”
Clay Diet

Try this simple tip that celebrities are keeping a secret: A spoon of clay a day will remove toxins from the body and remove negative isotopes, helping you detox and stay in shape.

Kate Waller, Specialist Dietitian

“Geophagia (the practice of eating earth) has been observed in human and non-human animals throughout history. Evidence supports this being an adaptive behaviour to supplement dietary mineral intake and to some extent, limit absorption of certain toxins. This is unnecessary however, in the context of a nutritionally balanced, healthy diet and can actually cause constipation, micronutrient deficiency or poisoning due to lead or arsenic content.”

Top tips:

- **Ask for Evidence.** If you’re being sold a product or asked to believe a claim then you deserve to know whether it’s based on evidence – or imagination.
- **Immune boosting.** You can’t and you don’t need to.
- **Detox.** It’s a marketing myth – our body does it without pricey potions and detox diets
- **Superfood.** There is no such thing, just foods that are high in some nutrients.
- **Cleansing.** You shouldn’t be trying to cleanse anything other than your skin or hair.
- **If it sounds too good to be true ... it probably is.**