

Hatty Willmoth explores how extreme dieting can be counterproductive and even dangerous

or those who fear their body will not be 'acceptable' in swimwear in time for the summer holidays, a short-term, quickfix 'crash' diet may seem the solution; drastically reducing daily calorie intake in a bid to rapidly shed the pounds.

According to Andrew Jenkinson, a bariatric surgeon and author of *Why We Eat (Too Much)*, summer often compels people to crash diet, as do upcoming events such as weddings. A famous recent example of this was Kim Kardashian posting about turning to extreme dieting methods in a bid to fit into a vintage Marilyn Monroe dress at this year's Met Gala.¹

IN BRIEF

- Crash diets can lead to deficiencies, fatigue, increased risk of diseases, and various other side effects.
- Hunger hormones mean a crash diet is difficult to maintain.
- Due to the way it affects your metabolism, quick weight loss can be counterproductive long term.
- Focus on health, rather than calories, in order to sustain change.

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But there can be plenty of other motives. Those who recently gained weight — for instance during the pandemic — may turn to crash dieting as a swift 'undo button'. Indeed, private healthcare provider Bupa observed a tremendous rise in internet searches related to crash dieting between January and December 2021.² Searches for 'easy ways to get skinny' doubled; searches for 'extreme weight-loss methods' grew by 387%; and searches for 'detox drinks to lose belly fat' soared by 800%.

Others may even crash diet regularly, following cycles of yo-yo dieting; gaining weight in winter and losing it for summer. Regardless of the specifics, crash dieting is not a good idea.

Immediate risks

Registered nutritional therapy practitioner Julia Young says there are risks associated with rapid weight loss.

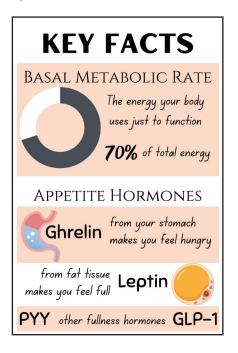
"The first thing that normally happens when we're losing weight is we lose a lot of water," she says. "But there is a danger that we lose muscle as well." There is even a risk of losing muscle tissue from vital organs. Then there is the risk of rapidly releasing toxins.

"We store toxins in our fat cells," says Young. "So if we're losing weight very quickly, then we're going to release those toxins in our body."

Toxins are a hotly-contested topic, but some believe they can push out nutrients, increase the risk of cancers and other diseases, and put extra burden on the liver. (See p19 to learn more about environmental toxins.)

Crash dieters may also become deficient in vitamins and/or minerals. "If you're cutting out food groups and vitamins and minerals that you would get from eating a balanced diet," says Young, "that will be an issue." For example, a diet lacking in vitamins C and D may weaken a dieter's immune system so they keep getting sick. Other deficiencies can cause thinning hair, low mood, irritability and dizziness. Long term, it could lead to conditions such as hair loss or brittle bones.

A crash dieter who is not getting enough energy is likely to feel persistently tired and fatigued. There is also a risk of low blood sugar and blood pressure, which can in turn lead to light-headedness, nausea, blurred vision,



IMAGINE YOU'VE GONE ON A CRASH DIET

Your leptin (a fullness hormone released by fat tissue) levels have decreased as you've lost weight, but your ghrelin (the hunger hormone) levels have gone up, so you're feeling very hungry.

Your metabolism has become more efficient; with a slower resting heart rate and lower blood pressure, you feel colder, weaker and sleepier. Young calls this "starvation mode", as your body does "everything it can to conserve energy".

It's also becoming increasingly difficult to resist all the food you have banned yourself from eating, and eventually you are likely to crack. At this point, low fullness hormone levels (peptide-YY (PYY) and glucagon-like peptide-1 (GLP-1)) mean you can eat a great deal before feeling the need to stop.

You may give up on your diet completely; perhaps you've been to the wedding, or summer's over, or you've just had enough. Now, with a much lower BMR and adjusted hormone levels, your body is primed to gain weight quickly.

And this cannot be easily resolved. Jenkinson says: "Those hormones can be affected for up to a year after a diet has finished. So you can feel less full and more hungry even a year after you stopped dieting."

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confusion and fainting.

Extreme patterns of eating can even be precursors to full-blown eating disorders such as anorexia,³ which has the highest mortality rate of any psychiatric condition.⁴ The strain that drastic weight loss puts on the body can also, in the long term, increase the risk of brain damage, diabetes, altered immune function, liver and/or kidney failure, heart attack and stroke.⁵

Gaining it all back again

Rapid weight loss is also rarely sustainable. "You quite often see people promoting losing a stone in a couple of weeks or something, and it's very attractive," says Young. "But more often than not, people regain the weight because if you return to the way you're eating, you're going to put that weight back on."

Even on moderate diets, weight loss is difficult to maintain. One 2020 study concluded from the weight loss trajectories of nearly 22,000 patients that any positive effects of moderate dieting had largely disappeared after a year.⁶ Meanwhile, an older Californian study simply declared all dieting to be ineffective because the majority of participants eventually regained more weight than they initially lost.⁷

Yet Jenkinson notes that there is some evidence to suggest "the faster you lose weight, the faster you regain it", implying drastic weight loss is extremely difficult to sustain.

Basal metabolic rates

Difficulty maintaining weight loss is largely due to hormonal changes.

Weight is determined by the hypothalamus, the part of the brain that keeps us in a state of homoeostasis (stability), and which maintains our 'weight set point' - the 'ideal weight' determined by the brain. It does this by releasing different amounts of hunger and satiety (fullness) hormones, and by altering our basal metabolic rate (BMR). This is the amount of energy it takes to run a human — to beat a heart, inflate and contract a couple of lungs, maintain a constant internal temperature, and so on - and makes up about 70% of the energy we normally use. The hypothalamus adjusts our BMR in response to available and needed energy, so when we eat less, we burn less energy.

In other words, when we lose weight, our metabolism becomes more efficient.

Hunger hormones

Hormones powerfully control how hungry a person feels. Ghrelin, secreted by the stomach and known as the 'hunger hormone', could bend even the strongest of wills.

Jenkinson explains what happens during a crash diet: "That ghrelin level will go very, very high and you'll have this voracious hunger and food-seeking behaviour. Hormones guide your body, tell it what to do. It's very hard to resist those instructions. So, when ghrelin is sky high, it is almost impossible to walk past a Starbucks. It's like a man walking past an oasis in the desert when he hasn't drunk water for three days."

Furthermore, he explains, fullness or

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'satiety' hormones should trigger us to stop eating once we've started, but on a crash diet they go "very, very low, so when you do start eating you can eat a lot before you stop".

Long term, it's counterproductive

Crash dieting can permanently impact a person's weight. The body doesn't recognise a deliberate diet; it reacts as if it's living through a famine. And, when that famine is over, it wants to be prepared for future famines by keeping more fat in its stores. Therefore, after a crash diet, your weight set point (the ideal weight your body aims to maintain) shifts upwards. You'll likely end up bigger in the long run than you were before.

A health-first approach

Instead of crash dieting, Young advises that those who want to lose weight aim to improve their health. "Rather than saying, 'I want to drop a dress size by this certain date', focus on your health and how you feel. By doing that, the weight should naturally come off.

"Rather than counting calories, count nutrients. An avocado might have the same calorie content as a slice of cake. Now that cake, with all its sugar and unhealthy fats in it, is going to tell your body to store fat, but the avocado has got vitamins and minerals that you need for good health and it's going to tell your body to burn fat.⁸

"So focusing on calories in the long term is not helpful, but focusing on getting those nutrients and on your health is much better."

A few more tips

Next, Young recommends addressing portion sizes. "Even if you are eating lots of healthy foods, if you're eating huge portions then that's not going to help you lose weight. I always say to clients, using your hand as a guide, protein should be the size of the palm of your hand, the cup of your hand is what you want for carbohydrates, and then [the tip of] your thumb for your healthy fats — oils, butter, and things like that — and a good handful for the veg. A woman may well have a smaller hand than a man; it shows that they should have a slightly smaller portion. It's in relation to what your body needs."

Young also advises focusing on three meals a day, with four- to five-hour

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gaps between eating, rather than constantly grazing. This gives your digestive system time to "rest and repair" and reduces your opportunity to overeat.

Lifestyle factors, she says, are also hugely important. "Poor sleep impacts the hunger hormones — even one night. The next day we crave sugar, carbohydrates and just don't eat as well. It impacts our ghrelin and our leptin, and deeply affects food choices the next day.

"Cortisol, the stress hormone, is a fat-storing hormone, so if we're constantly stressed, that's going to encourage us to store fat. And quite often people overeat or focus less on what they're eating when they're stressed. Work on practices to reduce stress and be a bit more mindful about what you're eating."

She suggests taking a moment to breathe before eating, or giving yourself 10 minutes to think about if you really want the snack you're about to grab. For those struggling to lose weight, Young also recommends checking for underlying issues, particularly with the thyroid.

Quick results or building habits

Young says that those considering a quick-fix diet should think deeply about what they actually want.

"Do they want to lose this weight for a beach holiday and then they're happy for it to go back on, which we know is not healthy anyway?" she says. "Or do they want to make sustainable changes that they can use for the rest of their life? We don't think about brushing our teeth twice a day, it's just a habit, and that's what you need to get to when making small changes; so you don't need to think about the fact that you're eating this healthier meal or you're not snacking anymore. It just becomes a habit."

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