

4-22-2022

## Debunking Medical Myths: Is Starving Yourself an Effective Way to Lose Weight?

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### Recommended Citation

Kavi, Anuj; Buendia, Alexander; Bilbao, Adrienne-Denise; Zalt, Lana; Puentes, Rachel; and Gregory, Mark, "Debunking Medical Myths: Is Starving Yourself an Effective Way to Lose Weight?" (2022). *Patient Education Projects*. 315.

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# Is starving yourself an effective way to lose weight?

Many people believe that restricting yourself to a "starvation" diet with extremely low caloric intake is an effective way to lose weight. Research shows that, while starving yourself may result in short-term weight loss, this practice can have detrimental effects on your long-term health, fat percentage, and body mass.



A medical study seeking to assess the behaviors and motivations for weight loss in children and adolescents suggests that children often attempt to lose weight due to adult influences, and can end up adopting dangerous behaviors to achieve their desired weight. The prevalence of eating disorders and obesity have risen in the past few decades, thus it is crucial for families to establish and model a healthy relationship with the concept of weight and weight loss as well as instill healthy eating habits (Brown et al. 2015).

## What happens to your body when you go into "starvation mode"?

### SHORT TERM EFFECTS

A study (Kosmiski et al., 2014) looked at participants that ate only 50% of their energy needs for 3 weeks straight:



Although participants did lose weight, additional metabolic disturbances caused them to lose 5% of their muscle mass in just 3 weeks time.



Continued, chronic starvation past the original 3 week time frame led to a 20% reduction in muscle mass and organ size.

These short-term effects can cause body weakness, loss of neuromuscular coordination and stamina, and susceptibility to injury and illness.

### LONG TERM EFFECTS

Studies into individuals who had previously undergone starvation diets in an attempt to lose weight found that:



Many participants who had lost fat during starvation dieting regained all of the fat mass they had lost within the first few years post-diet (Pownall et al., 2015).



Our bodies often experience "weight overshoot" where our original weight is surpassed in an attempt to recover and protect ourselves from starvation. This is often accompanied by "preferential catch-up fat", where the weight regained is disproportionately composed of fat rather than muscle mass (Dulloo, 2021).

## Let's look at the MINNESOTA STARVATION EXPERIMENT

(Keys et al, 1945)



36 young, healthy, psychologically normal men were selected to undergo a year-long study. Their behavior, personality, eating patterns, and body weight/composition were observed as they underwent 3 different experimental periods:

### months 1-3

Patients ate their "normal", pre-experiment diets

### months 4-9

Patients' diets were restricted to 50% of their original calorie intake

### months 10-12

Patients were gradually transitioned back to their original diets

## What did we learn?



After months of refeeding, participants gained back, on average, their **original weight plus about 10%**.



Then, over the next 6 months, their weight gradually declined until approaching **original weight levels** by end of follow-up period.



The recovery period from starvation puts people at **greater risk for mental health problems** compared to when they were starving.

## Research has shown that starvation diets are NOT a healthy or sustainable way to lose weight.

Take care to ensure that you and your loved ones are finding nourishing, nutritional options to stay healthy. There are plenty of fun and sustainable options to keep your weight within normal limits and to keep your body strong! Always reach out to your doctor if you have any concerns about your dietary health.



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