



Wait loss myths – NEVER EAT AFTER 6 PM

Gheorghe JINGA¹
Adrian IACOBINI²

Abstract

In a society where the no 1# causes of death are generated from being overweight the fitness industry is currently estimated to generate around 20 billion dollars just in the USA, there for many fitness and nutrition specialists have come up with different weight loos programs.

A very popular weight control method is to never eat after 6:00 PM but there are a many negative effects on the body witch come with this fitness myth, mainly the glycogen is taken form directly from the muscles and liver witch in the long run will lead to more fat tissue being stored in the body.

Keywords: Nutrition, Health, Fitness myths, Weight loos, Under-Eating, Eating Disorder

JEL classification: I10, I12, I19

1. Introduction

Worldwide obesity has more than doubled since 1980, in 2014 more than 1.9 billion adults were overweight, of there over 600 million were obese (**Obesity and overweight -2015** <http://www.who.int/mediacentre/factsheets/fs311/en/>)

The fundamental cause of obesity and overweight is an energy imbalance between calories consumed and calories expended. Globally, there has been: an increased intake of energy-dense foods that are high in fat; and an increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization. Changes in dietary and physical activity patterns are often the result of environmental and societal changes associated with development and lack of supportive policies in sectors such as health, agriculture, transport, urban planning, environment, food processing, distribution, marketing and education.

Raised BMI is a major risk factor for noncommunicable diseases such as: cardiovascular diseases (mainly heart disease and stroke), which were the leading cause of death in 2012; diabetes; musculoskeletal disorders (especially osteoarthritis - a highly disabling degenerative disease of the joints); some cancers (endometrial, breast, and colon). (**Obesity and overweight - 2015**)

¹ The Bucharest University of Economic Studies, jingagh06@yahoo.com

² The Bucharest University of Economic Studies, Adrian.iacobini@gmail.com



<http://www.who.int/mediacentre/factsheets/fs311/en/>)

Overweight and obesity, as well as their related noncommunicable diseases, are largely preventable. Supportive environments and communities are fundamental in shaping people's choices, making the healthier choice of foods and regular physical activity the easiest choice (accessible, available and affordable), and therefore preventing obesity.

A common mistake the general population does is to go online or to non specialist advisers, for weight loss methods and programs, and one of the most popular is to never eat at night or after 6:00 PM.

Many people who want to change their weight under-eat for a while. This is commonly known as "dieting". Under-eating for a short while in someone who is broadly a healthy weight will do little damage, but for some people under-eating becomes a way of life.

Dieting or an eating disorder has a negative effect on your food intake, without food, your body does not have enough energy and nutrition to carry on the functions necessary to sustain health, and over time your body will deteriorate and eventually shut down. (Brielle Thompson, **What are side effects of not eating** – www.livestrong.com 2015)

Knowledge about the effects of under-eating and underweight have come from many sources, such as studies of the effects of famine and concentration camp victims, as well as research studies into the effects of food restraint in animals and humans. Consistent findings have emerged. This means that whatever reasons you have for restricting food, you would experience exactly the same adverse effects no matter what you weigh.

Under-eating at any weight has a marked effect on physical health. There is a common misperception that under-eating prolongs life and this is reinforced by evidence that consistent overeating does indeed reduce life span. The exact effects of under-eating depend on the nature and the extent of the diet and the degree of weight loss. In no particular order of importance:

- Heart, Circulation and Temperature: The heart is a muscle which can be eroded by extreme under-eating and thus becomes weaker. Blood pressure may fall to dangerous levels and pulse rate slows up. Sluggish circulation can lead to ulcers on the legs and feelings of extreme cold. But the most worrying effect of a weakened heart would be if arrhythmia occurred (irregular beating).

- Sex Hormones and Infertility: In order to protect more important life processes, sex hormone production is interrupted. Sexual feelings decrease, and the signs of puberty in females and males disappear, such as menstruation and nocturnal emissions respectively. Normal functioning may be delayed even after a return to normal eating and weight.



- Bones: Hormonal and nutritional changes have a profoundly disturbing effect on bone growth and density. The years of puberty are the time when bones grow and strengthen. Should they fail to do so at this time they will never recover. The result in later life will be osteoporosis, stooping and a high risk of fracture.

- Digestion: The digestive tract in under-eaters slows right down and as a result food moves slowly through it and feels uncomfortable. This explains the heightened sensitivity to feelings of fullness and belatedness, which is misleading.

- Skin and Hair: The effects of under-eating are variable from one person to the other. Skin can become dry and show signs of early ageing. It may turn orange in the very low weight, or may be covered in very fine fuzz. Some people find that their hair becomes thin. Sleep and Rest: Under-eaters find it hard to sleep and may wake early with a sense of restlessness which drives them to go out and exercise.

*(Fairburn, CG, Cognitive Behaviour Therapy & Eating Disorders
Guildford Press 2008 Source: Deanne Jade 2009)*

Other effects are Hypoglycemia, or low blood sugar, occurs when glucose levels in your body decrease. Foods like pasta, fruit and rice contain the most glucose. Your body stores glucose in the liver. Not eating causes the body to deplete these stores from the liver, resulting in hypoglycemia. Dizziness, headaches and fainting are all symptoms of hypoglycemia.

Vitamins absorbed from food prevent disease, support growth and development, and support organ function. Vitamin deficiencies are a dangerous side effect of not eating, and common deficiencies from low food intake are for:

- Vitamin A, found in spinach, carrots and milk supports your immune system and vision. Without a sufficient intake of vitamin A, your body's immune system will weaken. According to the National Institutes of Health, night blindness is one of the first signs of a vitamin A deficiency.

- The B--vitamins play an integral role in numerous bodily functions. According to the American Cancer Society, deficiency of certain B--vitamins can cause anemia, depression, respiratory infections and poor growth in children.

- Calcium and phosphorous levels are regulated by vitamin D, and deficiencies may contribute to osteoporosis and high blood pressure.

- Electrolyte Deficiencies Electrolytes deplete as your body starves.

- Hypokalemia, or low potassium, can cause heart dysrhythmias and muscle spasms.

- A lack of calcium can also cause heart problems and tingling on your face and extremities. Bone mass will eventually decrease.



- Confusion and muscles weakness are common symptoms of hyponatremia, or low sodium. All electrolyte deficiencies can be life threatening if left untreated. (Brielle Thompson, **What are side effects of not eating** – www.livestrong.com, 2015)

Insomnia and other sleep disturbances are one of the top health complaints people get from under eating. This is especially common in peri-menopausal women who seem to be especially prone to poor sleep despite generally good sleep hygiene and a health conscious lifestyle.

Caloric restriction is known to cause a drop in body temperature. A lowered body temperature can be due to a decrease in thermogenesis, since the body needs a certain amount of ingested calories to create heat, as well as due to the hormonal changes that come from caloric restriction, such as thyroid hormone reduction and HPA axis disruption. Low insulin can also lead to low body temperature, so some people on a very low carbohydrate diet will experience this symptom as well.

Hair loss is one of the first signs of nutritional deficiency, whether that be calories, protein, or both. It is exacerbated by the hormonal changes that develop from chronic under-eating, including a drop in sex hormones like progesterone, testosterone, and estrogen. Hair loss is another common symptom of hypothyroidism, which can develop from long term calorie restriction.

Calories eaten late at night or after 6:00 p.m. do not automatically turn into fat. Your body uses calories the same way regardless of the time of day, according to the Centers for Disease Control and Prevention. The total number of calories you eat throughout the day determines whether or not you will gain weight, rather than the time of day at which you consume those calories. (*Lisa Porter – Can you lose weight if you stop eating after 6 pm, 2015 – www.livestrog.com*)

Eating certain foods at night can actually accelerate your progress toward attaining your fitness goals. The physiological truth is that nothing magical happens when the clock strikes 8 or 9 p.m. So, where did this fitness rule come from? People are generally less active at night, which means that they burn fewer calories. In addition, it seems like dinnertime is when people might be at a higher risk of consuming more calories than necessary. (*Mike Roussell – 4 suprising benefits of eating at night, www.livestrog.com 2015*)

Under-eating has specific effects which are universal and which change every aspect of personality. Some distressing symptoms when a person tries to eat more are directly caused by under-eating. Example: being bloated is caused by under-eating and is not usually a sign that you have eaten too much.

- Your personality, thoughts and feelings are directly affected by what you eat.
- The effects of under-eating are dangerous.
- Under-eating may make you feel special and stronger but this is the eating disorder telling you that this is so and this eating disorder also makes you unhappy and tired.



- Under-eating will keep you locked in to the eating problem by making you more obsessed and preoccupied by food and more irrational about how you really look; more inflexible and more easily bloated. All of these horrible symptoms – including self hatred and feeling fat, will begin to recede if a person is able to start eating and regain a healthier body weight. If weight is already low, you may need some expert support to help you manage this change and keep you safe.

(Fairburn, CG, Cognitive Behaviour Therapy & Eating Disorders Guildford Press 2008 Source: Deanne Jade 2009)

Conclusions

Calories eaten late at night or after 6:00 p.m. do not automatically turn into fat. Your body uses calories the same way regardless of the time of day, according to the Centers for Disease Control and Prevention. The total number of calories you eat throughout the day determines whether or not you will gain weight, rather than the time of day at which you consume those calories.

While a slight caloric deficit can lead to sustainable weight loss (think 300-500 calories per day), much larger deficits induce changes in your body's metabolism in order to keep your body in a homeostatic balance. Your body does not like major, drastic changes, and it will make modifications to your thyroid, adrenal, and sex hormones in order to reduce your overall caloric output. *(Laura Schoenfeld, MPH, RD)*

If you really feel hungry late at night, choose healthy snacks. Eat fresh fruit, vegetable sticks, low-fat yogurt or a small portion of nuts rather than a candy bar or bag of chips. Or eat air-popped popcorn rather than oil-popped popcorn.

REFERENCES

1. Bray, George and Claude Bouchard. Handbook of Obesity. Oxford Oxfordshire: Oxford University Press, 1998.
2. Leibel RL, Rosenbaum M, Hirsch J. Changes in energy expenditure resulting from altered body weight. N Engl J Med. 1995 Mar 9;332(10):621-8. Erratum in: N Engl J Med 1995 Aug 10;333(6):399. PubMed PMID: 7632212.
3. Keys, Ancel. The Biology of Human Starvation: Volume I. Minneapolis: University of Minnesota Press, 1950.
4. Laura Schoenfeld, MPH, RD
5. Fairburn, CG, Cognitive Behaviour Therapy & Eating Disorders Guildford Press 2008
6. Mike Roussell – 4 surprising benefits of eating at night, www.livestrong.com 2015, <http://www.livestrong.com/article/1005007-4-surprising-benefits-eating->



-
- night/#sthash.wkBJbm3K.dpuf - accessed 25 november 2015
7. Lisa Porter – Can you lose weight if you stop eating after 6 pm, 2015 – www.livestrong.com, <http://www.livestrong.com/article/227439-can-you-lose-weight-if-you-stop-eating-after-6-pm/#sthash.eFQt0nlS.dpuf> - accessed 25 november 2015
 8. Brielle Thompson, What are side effects of not eating – www.livestrong.com 2015 - <http://www.livestrong.com/article/134155-what-are-side-effects-not-eating/#sthash.19t0eJjA.dpuf> - accessed 25 november 2015 - accessed 25 november 2015
 9. Obesity and overweight -2015 <http://www.who.int/mediacentre/factsheets/fs311/en/> - accessed 25 november 2015