

8 Health Benefits of Fasting, Backed by Science

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Despite its recent surge in popularity, fasting is a practice that dates back centuries and plays a central role in many cultures and religions.

Defined as the abstinence from all or some foods or drinks for a set period of time, there are many different ways of fasting.

In general, most types of fasts are performed over 24–72 hours.

Intermittent fasting, on the other hand, involves cycling between periods of eating and fasting, ranging from a few hours to a few days at a time.

Fasting has been shown to have many health benefits, from increased weight loss to better brain function.

Here are 8 health benefits of fasting — backed by science.



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1. Promotes Blood Sugar Control by Reducing Insulin Resistance

Several studies have found that fasting may improve blood sugar control, which could be especially useful for those at risk of diabetes.

In fact, one study in 10 people with type 2 diabetes showed that short-term intermittent fasting significantly decreased blood sugar levels ([1Trusted Source](#)).

Meanwhile, another review found that both [intermittent fasting](#) and [alternate-day fasting](#) were as effective as limiting calorie intake at reducing insulin resistance ([2Trusted Source](#)).

Decreasing [insulin resistance](#) can increase your body's sensitivity to insulin, allowing it to transport glucose from your bloodstream to your cells more efficiently.

Coupled with the potential blood sugar-lowering effects of fasting, this could

help keep your blood sugar steady, preventing spikes and crashes in your blood sugar levels.

Keep in mind though that some studies have found that fasting may impact blood sugar levels differently for men and women.

For instance, one small, three-week study showed that practicing alternate-day fasting impaired blood sugar control in women but had no effect in men ([3Trusted Source](#)).

Summary Intermittent fasting and alternate-day fasting could help decrease blood sugar levels and reduce insulin resistance but may affect men and women differently.

2. Promotes Better Health by Fighting Inflammation

While acute inflammation is a normal immune process used to help fight off infections, chronic inflammation can have serious consequences for your health.

Research shows that inflammation may be involved in the development of chronic conditions, such as heart disease, cancer and rheumatoid arthritis ([4Trusted Source](#)).

Some studies have found that fasting can help [decrease levels of inflammation](#) and help promote better health.

One study in 50 healthy adults showed that intermittent fasting for one month significantly decreased levels of inflammatory markers ([5Trusted Source](#)).

Another small study discovered the same effect when people fasted for 12 hours a day for one month ([6Trusted Source](#)).

What's more, one animal study found that following a very low-calorie diet to mimic the effects of fasting reduced levels of inflammation and was beneficial in the treatment of multiple sclerosis, a chronic inflammatory condition ([7Trusted Source](#)).

Summary Some studies have found that fasting could decrease several markers of inflammation and may be useful in treating inflammatory conditions, such as multiple sclerosis.

3. May Enhance Heart Health by Improving Blood Pressure, Triglycerides and Cholesterol Levels

Heart disease is considered the leading cause of death around the world, accounting for an estimated 31.5% of deaths globally ([8Trusted Source](#)).

Switching up your diet and lifestyle is one of the most effective ways to reduce your risk of heart disease.

Some research has found that incorporating fasting into your routine may be especially beneficial when it comes to heart health.

One small study revealed that eight weeks of alternate-day fasting reduced levels of “bad” LDL [cholesterol](#) and blood [triglycerides](#) by 25% and 32% respectively ([9Trusted Source](#)).

Another study in 110 obese adults showed that fasting for three weeks under medical supervision significantly decreased blood pressure, as well as levels of blood triglycerides, total cholesterol and “bad” LDL cholesterol ([10Trusted Source](#)).

In addition, one study in 4,629 people associated fasting with a lower risk of coronary artery disease, as well as a significantly lower risk of diabetes, which is a major risk factor for heart disease ([11Trusted Source](#)).

Summary Fasting has been associated with a lower risk of coronary heart disease and may help lower blood pressure, triglycerides and cholesterol levels.

4. May Boost Brain Function and Prevent Neurodegenerative Disorders

Though research is mostly limited to animal research, several studies have found that fasting could have a powerful effect on brain health.

One study in mice showed that practicing intermittent fasting for 11 months [improved](#) both brain function and brain structure ([12Trusted Source](#)).

Other animal studies have reported that fasting could [protect brain health](#) and increase the generation of nerve cells to help enhance cognitive function ([13Trusted Source](#), [14Trusted Source](#)).

Because fasting may also help relieve inflammation, it could also aid in preventing neurodegenerative disorders.

In particular, studies in animals suggest that fasting may protect against and improve outcomes for conditions such as Alzheimer's disease and Parkinson's ([15Trusted Source](#), [16Trusted Source](#)).

However, more studies are needed to evaluate the effects of fasting on brain function in humans.

Summary Animal studies show that fasting could improve brain function, increase nerve cell synthesis and protect against neurodegenerative conditions, such as Alzheimer's disease and Parkinson's.

5. Aids Weight Loss by Limiting Calorie Intake and Boosting Metabolism

Many dieters pick up fasting looking for a quick and easy way to [drop a few pounds](#).

Theoretically, abstaining from all or certain foods and beverages should decrease your overall calorie intake, which could lead to increased weight loss over time.

Some research has also found that short-term fasting may [boost metabolism](#) by increasing levels of the neurotransmitter norepinephrine, which could enhance weight loss ([17Trusted Source](#)).

In fact, one review showed that whole-day fasting could reduce body weight by up to 9% and significantly decrease body fat over 12–24 weeks ([18Trusted Source](#)).

Another review found that intermittent fasting over 3–12 weeks was as effective in inducing weight loss as continuous calorie restriction and decreased body weight and fat mass by up to 8% and 16% respectively ([19Trusted Source](#)).

In addition, fasting was found to be more effective than calorie restriction at increasing fat loss while simultaneously preserving muscle tissue ([19Trusted Source](#)).

Summary Fasting may increase metabolism and help preserve muscle tissue to reduce body weight and body fat.

6. Increases Growth Hormone Secretion, Which Is Vital for Growth, Metabolism, Weight Loss and Muscle Strength

Human growth hormone (HGH) is a type of protein hormone that is central to many aspects of your health.

In fact, research shows that this key hormone is involved in growth,

metabolism, weight loss and muscle strength ([20Trusted Source](#), [21Trusted Source](#), [22Trusted Source](#), [23Trusted Source](#)).

Several studies have found that fasting could [naturally increase HGH levels](#).

One study in 11 healthy adults showed that fasting for 24 hours significantly increased levels of HGH ([24Trusted Source](#)).

Another small study in nine men found that fasting for just two days led to a 5-fold increase in the HGH production rate ([25Trusted Source](#)).

Plus, fasting may help maintain steady blood sugar and insulin levels throughout the day, which may further optimize levels of HGH, as some research has found that sustaining increased levels of insulin may reduce HGH levels ([26Trusted Source](#)).

Summary Studies show that fasting can increase levels of human growth hormone (HGH), an important protein hormone that plays a role in growth, metabolism, weight loss and muscle strength.

7. Could Delay Aging and Extend Longevity

Several animal studies have found promising results on the potential lifespan-extending effects of fasting.

In one study, rats that fasted every other day experienced a delayed rate of aging and lived 83% longer than rats that didn't fast ([27Trusted Source](#)).

Other animal studies have had similar findings, reporting that fasting could be effective in [increasing longevity](#) and survival rates ([28Trusted Source](#), [29Trusted Source](#), [30Trusted Source](#)).

However, current research is still limited to animal studies. Further studies are needed to understand how fasting may impact longevity and aging in humans.

Summary Animal studies have found that fasting could delay aging and increase longevity, but human research is still lacking.

8. May Aid in Cancer Prevention and Increase the Effectiveness of Chemotherapy

Animal and test-tube studies indicate that fasting may benefit the treatment and [prevention of cancer](#).

In fact, one rat study found that alternate-day fasting helped block tumor formation ([31Trusted Source](#)).

Similarly, a test-tube study showed that exposing cancer cells to several cycles of fasting was as effective as chemotherapy in delaying tumor growth and increased the effectiveness of chemotherapy drugs on cancer formation ([32Trusted Source](#)).

Unfortunately, most research is limited to the effects of fasting on cancer formation in animals and cells.

Despite these promising findings, additional studies are needed to look at how fasting may influence cancer development and treatment in humans.

Summary Some animal and test-tube studies suggest that fasting could block tumor development and increase the effectiveness of chemotherapy.

How to Start Fasting

There are many different types of fasts, making it easy to find a method that fits your lifestyle.

Here are a few of the most common types of fasting:

- **Water fasting:** Involves [drinking only water](#) for a set amount of time.
- **Juice fasting:** Entails only drinking vegetable or [fruit juice](#) for a certain

period.

- **Intermittent fasting:** Intake is partially or completely restricted for a few hours up to a few days at a time and a normal diet is resumed on other days.
- **Partial fasting:** Certain foods or drinks such as processed foods, animal products or caffeine are eliminated from the diet for a set period.
- **Calorie restriction:** Calories are restricted for a few days every week.

Within these categories are also more specific types of fasts.

For example, intermittent fasting can be broken down into [subcategories](#), such as alternate-day fasting, which involves eating every other day, or time-restricted feeding, which entails limiting intake to just a few hours each day.

To get started, try experimenting with different types of fasting to find what works best for you.

Summary There are many different ways to practice fasting, which makes it easy to find a method that fits into just about any lifestyle. Experiment with different types to find what works best for you.

Safety and Side Effects

Despite the long list of possible health benefits associated with fasting, it may not be right for everyone.

If you suffer from diabetes or low blood sugar, fasting can lead to spikes and crashes in your blood sugar levels, which could be dangerous.

It's best to talk to your doctor first if you have any underlying health conditions or are planning to fast for more than 24 hours.

Additionally, fasting is not generally recommended without medical supervision for older adults, adolescents or people who are underweight.

If you decide to try fasting, be sure to [stay well-hydrated](#) and fill your diet with [nutrient-dense foods](#) during your eating periods to maximize the potential health benefits.

Additionally, if fasting for longer periods, try to minimize intense physical activity and get plenty of rest.

Summary When fasting, be sure to stay hydrated, eat nutrient-dense foods and get plenty of rest. It's best to consult with your doctor before fasting if you have any underlying health conditions or are planning to fast for more than 24 hours.

The Bottom Line

Fasting is a practice that has been associated with a wide array of potential health benefits, including weight loss, as well as improved blood sugar control, heart health, brain function and cancer prevention.

From water fasting to intermittent fasting and calorie restriction, there are many different types of fasting that fit nearly every lifestyle.

When coupled with a [nutritious diet](#) and [healthy lifestyle](#), incorporating fasting into your routine could benefit your health.