Intermittent Fasting: The Best Breakfast May Be Eating Nothing At All

Breakfast is the most important meal of the day!

If you don't eat cereal for breakfast, you will be overcome by the greatest evil – masturbation.

Oh, and cereal will make you more efficient and productive, too.

These were the beliefs that started the commercialization of breakfast and breakfast cereals in the early 1900s. These ideas were proposed by Dr. John Harvey Kellogg, an early Seventh-day Adventist and the inventor of corn flakes. With the help of his credentials, his brother's mass-marketing of the corn flakes, and the magazine he edited called *Good Health*, Dr. John Harvey Kellogg was able to popularize his idea that a "whole grain" breakfast is the most important meal of the day.

Although most of us already know how bad cereal is for our health, the idea that breakfast is an essential part of a healthy lifestyle is still popular more than 100 years later. This has been confirmed by that fact that – in 2011 – 9 out of 10 people in the United States reported eating a daily morning meal. A plethora of scientific studies, on the other hand, support the 10% of Americans who skip breakfast and provide irrefutable evidence that breakfast is not the most important meal of the day. We can start to uncover the reasons why with a Nobel Prize.

How to Harness the Power of a Nobel Prize Winning Discovery

Last year, the Noble Prize in Physiology or Medicine was awarded to Yoshinori Ohsumi for discovering some of the mechanisms of autophagy or – in layman's terms – how the cell devours itself. At first, this sounds like a horrendous discovery, until you consider what is really happening.

When our cells undergo the process of autophagy, damaged proteins are recycled and invading microorganisms and toxic compounds are removed. This means that autophagy plays an important role in stopping the aging process, reversing disease, and preventing cancer, but it doesn't happen all the time. Fasting, protein restriction, and carbohydrate restriction are the three main ways that can initiate different autophagic processes – all of which are not the same. This is part of the reason why skipping meals like breakfast can be better for you than eating three or more meals throughout the day.

Enter Intermittent Fasting

Intermittent fasting is a fancy term that we use to describe the process of skipping meals. The most popular intermittent fasting strategy is fasting during a 16-hour window of time and eating two meals during the remaining 8 hours. Let's say, for example, your last meal was at 6 pm last night, and you ate nothing else after that. To start an intermittent fast, simply restrict eating until 10 am the next morning.

There are many different variations of intermittent fasting. Dr. Dom D'Agostino, the well-known ketogenic diet researcher, suggests doing a longer intermittent fast for 3 days, 3 times a year. This means not eating for 3 days, and eating normally until the next fast.

Dr. D'Agostino also recommends daily intermittent fasts. He says that it is ideal to have one or two meals after fasting for most of the day to reap the benefits of intermittent fasting every day.

Clean Your (Cell's) Room

Part of the reason why intermittent fasting promotes health is because you can use it to activate the processes of autophagy that are brought about by carbohydrate restriction, protein restriction, and fasting.

If this scientific jargon is throwing you off, think about what you do when your room is dirty. You may clean it in your spare time or have a set time on the weekend to clean it, but what happens when the weekend comes and you are busy with endless obligations? You spend so much of your time fixing the car, helping your mother and doing everything else you have to do that you have no time to clean your room. After a week without cleaning, your room is just a bit dirtier than usual, but after a month of being too busy to clean, your room is filthy. Dirty, smelly clothes are all over the floor, dust is everywhere, and you ran out of underwear (again).

This is what happens to our cells when we eat three or more meals a day that completely fulfill our need for calories. Even if you are eating the healthiest of foods, your cells still can get backed up with inessential proteins and toxic compounds. So what can you do?

To make sure that you clean your bedroom, you stop allowing yourself to be consumed by other obligations – you free up your time. To make sure that your cells can clean themselves, you enter a fasted state.

Fasting will not only activate autophagy in your cells, it will also increase your ketone levels – an alternative fuel source for your body and brain. You can even boost ketone

levels and autophagy by adding in low-intensity exercise (like walking and cycling).

Refeeding Syndrome – When Fasting Goes Too Far

Health complications can arise when you fast for longer than 5 days. One of these complications is called refeeding syndrome, which is caused by potentially fatal shifts in fluid and electrolyte balance that can happen when we eat after a period of undernourishment. Refeeding syndrome happens because the concentration of fluids and minerals in our body relies heavily on what we eat. For example, low carbohydrate diets, like the ketogenic diet, increase the excretion of vital minerals like sodium and potassium.

Fasts that are shorter than 5 days, however, aren't likely to cause issues – especially if you sip water with a pinch of unrefined salt in it throughout each day and break your fast with a low carbohydrate meal that is filled with mineral rich foods. A meal with dark leafy greens, avocado, and salmon with some unrefined salt, for example, would be an ideal way to break a longer fast. But what about muscle? It's only common sense that consuming no protein and fewer calories will lead to an unhealthy amount of muscle loss. That's right – it is *only* common sense.

Intermittent Fasting and Muscle

Two paradigm-shifting studies have recently been published on the effects of intermittent fasting. One group of researchers studied the effects that 16 hours of intermittent fasting had on resistance-trained males. They found that muscle mass stayed the same, fat mass decreased significantly, and the males who fasted for 16 hours a day burned more fat for fuel compared to the control group that only fasted for 12 hours.

This suggests that intermittent fasting can help us rely more on our fat stores for fuel rather than carbohydrates from food.

Another study showed that combining 20 hours of fasting with resistance training resulted in an increase in muscle mass, strength, and endurance, and all of this was achieved by eating ~650 fewer calories per day than normal.

The benefits of intermittent fasting translate to untrained overweight and obese individuals as well. One study published in *Obesity Reviews* found that eating fewer calories is effective for fat loss, but it does come with some muscle loss. However, if the subjects fasted for 24 hours and ate as much as they wanted on the next day for a period of 12 weeks, they lost significantly less muscle mass.

Yes – you read that correctly – 24 hours of intermittent fasting without any resistance training and these subjects were able to preserve more muscle mass than the subjects who ate fewer calories every day without fasting at all. This finding contradicts our common sense, but when we dig deeper into autophagy we can find the mechanism behind this result.

Autophagy and Muscle Loss Prevention

Before a Nobel Prize was awarded to Yoshinori Ohsumi in 2016, other researchers were discovering wonderful things about autophagy. In 2009, an article entitled "*Autophagy Is Required to Maintain Muscle Mass*" was published in *Cell Metabolism* that described how deactivating an important autophagy gene resulted in a profound loss of muscle mass and strength. This happened because autophagy is an essential process that the muscle cell uses to clean up damaged proteins and mitochondria before they reach the point where they can't function any longer and die.

At first glance, this seems counter-intuitive because we tend to assume that the nutrients we eat will repair the damage, but this is not how things work in reality. Think about it like this – if you want to refurbish a room, it is best to clean the room and remove the old furniture before you put the new furniture in. The same thought process applies to your cells. We must use intermittent fasting to let autophagy clean the cell before we put in new furniture, and if we don't, our cells can become cancerous.

Intermittent Fasting and Cancer

Although there is little to no literature on the effects of 2 or 3-day fasts on muscle loss in humans, many clinical trials are currently being conducted on the effects that fasting has on cancer patients.

In initial case studies, patients who were going through chemotherapy treatment voluntarily fasted for anywhere between 48 to 140 hours. Each patient reported fewer side effects and an improved quality of life regardless of how long they fasted. This implies that fasting for 2 to 7 days can have a protective effect on the cells in the body while they are undergoing intense bouts of toxicity.

Other studies have shown that fasting was as effective as chemotherapeutic agents in delaying the progression of different tumors, and it increased the effectiveness of chemotherapeutic drugs against melanoma, glioma, and breast cancer cells. Although this research may not directly apply to your life, it confirms that intermittent fasting can help prevent cancer and help support your body in times of toxic stress.

The Takeaway

It's okay to skip breakfast. In fact, you may experience more

health benefits by doing so. Although you will feel hungry at first, your body will adjust by activating autophagy and using more fat and ketones for fuel.

Dr. Dom D'Agostino, a popular ketogenic diet researcher, suggests doing a longer intermittent fast followed by shorter daily intermittent fasts. His fasting protocol includes fasting for up to 3 days, 3 times a year with a shorter 16 to 20 hour fast on the days before and after the longer 3-day fasts.

However, you can still get the benefits of intermittent fasting by fitting different methods into your lifestyle. For example, Dr. Krista Varaday – a researcher who has conducted many research studies on fasting – suggests using alternate day fasting, which consists of eating less than 500 calories on fasting days and eating normally on non-fasting days. Dr. Mercola, on the other hand, proposes a less strict approach to fasting – consisting of a 13 to 18 hour fast a couple days a week or more.

Whether you are fasting for 16 hours or 3 days, it is important to stay hydrated with distilled water that includes a pinch of mineral-rich unrefined salts. Break your fasts with vitamin and mineral rich foods like organic vegetables, leafy greens, nuts, seeds, pastured animal products like eggs, and wild caught seafood like salmon and sardines.

But Remember – All Intermittent Fasts Are Not The Same

Before you start fasting, it is important to know that each method will have different effects on different people. In general, longer fasts – like a 3-day fast – tend to increase autophagy and ketone levels much more than a shorter fast. Shorter fasts – like a 16-hour daily fast – have a smaller impact on ketone levels and autophagy, but they tend to do a

great job at decreasing your daily caloric intake and increasing the likelihood that your body will burn fat for fuel.

The shorter fast is simple and easy enough to implement, but the 3-day fast seems daunting and difficult (at first). This is why I provided you with an example of one of my favorite 3-day fasting protocols that make it simple and easy.

Practical Protocol: Tim Ferris's 3 Day Fast

If you want a simple guide to boost your ketone levels and activate autophagy, try this 3-day "fasting" protocol that Tim Ferris adapted from Dr. D'Agostino and wrote about it his book *Tools of Titans:*

Thursday Evening

- Eat a normal dinner and make that the last meal of the day. Go to bed as normal.

Friday Morning

- Get out the door and walk within 30 minutes of waking.
- Bring at least 1 liter or more of water with some added unrefined salt in it, and sip as you walk to avoid cramping.
- Walk for 3 to 4 hours, sipping water as needed.
- Arrange phone calls for your walk to make the time productive.
- The idea behind the walk is that you use up your glycogen stores, forcing your body to move more quickly into deep ketosis (when your body is burning ketones for fuel). The quicker you get into ketosis, the less time you spend feeling tired and starved.

Friday Day (post walk)

- Consume MCT oil 2-3 times throughout the day.
- Tim suggests C8 (Caprylic Acid) Quest Nutrition MCT Powder. This provides you with energy until you reach ketosis.

Saturday Morning

- Upon waking, Tim suggests testing your blood ketones with a ketone blood testing kit like the Precision Xtra. Your ketones should be at 0.7mmol or greater.
- If you're at 0.7mmol, proceed with your fast.
- If you're under 0.7mmol, consider going for another extended walk, and then re-test.

Saturday & Sunday Day

- Add further MCT oil or coconut oil if you need a boost, but do your best to only have water throughout the day.
- Incorporate some salts in your water throughout the day. This can either be in the form of table salts, or via a specially formulated solution such as SaltStick electrolyte replacement pills.

Sunday Evening

- Tim suggests breaking the fast with whatever meal you choose.

This process can be used as a way to get you into ketosis more quickly so that fasting is much easier. Each time you do an intermittent fast, your body will get better and better at using fat and ketones for fuel, which will lead to less hunger, more fat loss, and less muscle loss. If you can't go without fat for the full 3-day fast, it's okay, you will still reap many of the benefits of fasting by not having any carbohydrates or protein.

Recommended Reading:

- *Detox Cheap and Easy Without Fasting – Recipes Included*

- *How to Detoxify and Heal the Lymphatic System*
- *Holistic Guide to Healing the Endocrine System and Balancing Our Hormones*
- *Candida, Gut Flora, Allergies, and Disease*
- *How to Cure Lyme Disease and Virtually Any Other Bacterial Infection, Naturally*

Sources:

- *Corn Flakes Were Part of an Anti-Masturbation Crusade* – Mental Floss
- *Tim Ferriss – 3 Day Fast Protocol Details – Get into Ketosis Quicker and Easier* – Eat. Move. Hack.
- *How long can a person survive without food?* – Scientific American
- *Top 10 Foods Highest in Phosphorus* – Healthaliciousness
- *Neuroprotective and disease-modifying effects of the ketogenic diet* – NCBI
- *Refeeding syndrome: what it is, and how to prevent and treat it* – NCBI
- *Discoveries of Mechanisms for Autophagy* – Nobel Prize
- *Effects of eight weeks of time-restricted feeding (16/8) on basal metabolism, maximal strength, body composition, inflammation, and cardiovascular risk factors in resistance-trained males* – BioMed Central
- *Time-restricted feeding in young men performing resistance training: A randomized controlled trial.* – NCBI
- *Intermittent versus daily calorie restriction: which diet regimen is more effective for weight loss?* – NCBI
- *Autophagy Is Required to Maintain Muscle Mass* – Cell
  Fasting Cycles Retard Growth of Tumors and Sensitize a Range of Cancer Cell Types to Chemotherapy – NCBI
- *Fasting and cancer treatment in humans: A case series report* – NCBI
- *What if you got cancer today? Here's how Tim Ferriss' podcast guest, Dom D'Agostino, responded* – Eat. Move.

Hack.

- *Physical exercise increases autophagic signaling through ULK1 in human skeletal muscle* – American Physiological Society
- *Acute nutritional ketosis: implications for exercise performance and metabolism* – BioMed Central
- *How lobbyists made breakfast 'the most important meal of the day'* – The Guardian
- *Does anybody eat cereal for breakfast anymore?* – CNN Money
- *Peak Fasting – How Long Should You Intermittently Fast?* – Mercola
- *31 Million U.S. Consumers Skip Breakfast Each Day, Reports NPD* – NPD