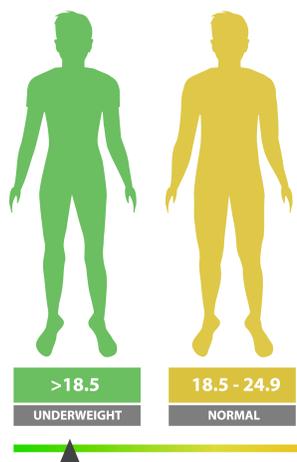


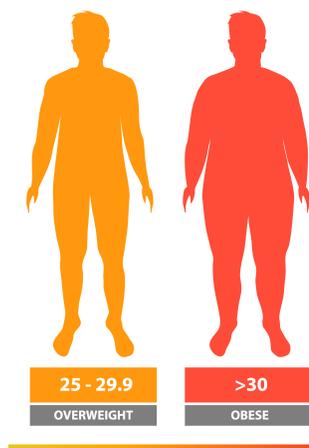
BODY MASS INDEX



Americans are suffering from what some call an 'obesity epidemic.' With one of the highest obesity rates in the world, obesity in the U.S. continues to rise. While being at a healthy weight doesn't mean you need to be rail-thin or starve yourself, those living with obesity are at a weight that brings heightened risk for a number of health conditions including heart disease, stroke, type 2 diabetes, and certain cancers.

So it's no surprise that many looking to bring their weight down, or maintain a healthy weight, worry about the impacts that cannabis use might have - given its reputation for increasing appetite, and in particular increasing our cravings for unhealthy snacks. But the research on cannabis and obesity isn't as simple as it seems. And rather than contributing to obesity, the science suggests that using cannabis may actually help to reduce weight and bring obesity levels down.

UNDERSTANDING OBESITY



Obesity is defined by having a body mass index (BMI) of 30 or higher, and BMI is based on a relationship between your weight and height. Those carrying too much weight for their height (according to the BMI measure) are considered obese. Some critique the BMI measure for not taking into account factors like muscle mass, which can lead the criteria to categorize body builders as obese due to the weight of their muscles, and because some who meet the criteria are completely healthy. It's always best to talk to a doctor about your individual health and whether you are at a healthy weight. But in general, studies suggest that those in the obese category are on average more at risk for health issues like heart disease, stroke, type 2 diabetes, and certain cancers, so most doctors agree that it's best to keep your weight below the obesity line.

There are many different factors that can influence or lead to obesity. For some, genetics play a role. Medical issues or medications can cause weight gain. Metabolic or hormonal factors impact weight as well. Stress and lack of sleep can contribute, and we tend to keep on more weight as we age. And then, of course, there are lifestyle factors like exercise and diet.

Some researchers point to these lifestyle changes as the big reason why we are seeing increases in obesity. While our ancient ancestors spent their days actively hunting and gathering food, and tended to eat a diet high in fat from meats and vitamins from vegetables. We were active, often had to fast for

"Sensi Chews are delicious, and the portion and price are right on. I was thrilled because I only use medical marijuana on an as needed basis for anxiety. It provides relief and allows me to be functional without being too stoned. I especially like the packaging because it is discreet and portable. Sensi Chew Energy makes me feel happy and relaxed and does not make me have the munchies or make me forgetful. My husband and children thank you too because a happy wife and mother makes for a happy home :)"

- Julie

periods of time between successful hunts, and ate a diet very different from the one we eat today. The rise of agriculture introduced high levels of carbohydrates into our diet with availability of processed grains and sugars. And as modern life continues to evolve we are less and less active, yet we have a seemingly endless supply of cheap, high-carbohydrate options to eat.

Interestingly, hunger and metabolism ties into the endocannabinoid system (ECS) - the system in the human body that interacts with cannabis, and it's compounds. The ECS is a natural system found in all mammals, and it is comprised of cannabinoid receptors (such as CB1 and CB2) and endocannabinoids, natural chemicals produced by our body that activate the receptors. When the ECS is balanced, these internal chemicals activate receptors to modulate different functions in the body including immune health, stress, memory, sleep, mood, pain, energy, and hunger and metabolism. The chemicals in cannabis are also able to activate these receptors, which is how they create cannabis' many different effects.

When it comes to metabolism and weight, this system plays an important role. Activating the receptor CB1 is known to stimulate hunger and cravings, in particular it can spark cravings for high-carbohydrate foods. Scientists have discovered that those with genetically induced obesity have extremely overstimulated endocannabinoid systems, with far more CB1 activation than average. In our early evolution, CB1 stimulation would have driven us on to find more food, particularly those higher in carbohydrates like fruit - which often come with lots of vitamins and fiber and would be a healthy addition to our ancient diet. But in our modern life, it can just spur us to eat another candy bar or bag of chips. We no longer have to hunt or search for our food, so we aren't exercising or fasting as much. The result is an average weight that keeps getting higher and higher.

TYPICAL TREATMENTS

Typically, most weight-loss treatments for obesity involve changing those lifestyle factors of diet and exercise. Restricting calories, shifting to healthier foods, and increasing physical activity and exercise are all common methods. While there has been a lot of disagreement on what diet is a healthy one for weight loss, in general, shifting our habits closer to the lifestyle of our ancestors by moving more and eating less (particularly less processed carbohydrates) can make a big difference in weight.

Obesity, Metabolism, and Cannabis



For some, counseling or support groups might also be added to help with emotional and behavioral factors behind overeating and to learn healthier ways to work with stress or other triggers. In more challenging cases, particularly where medical issues or genetic factors are a cause, doctors may also prescribe weight loss medications or even recommend surgery

CANNABIS CAN HELP

You might be surprised that cannabis has potential to help. After all, cannabis is known for giving people ‘the munchies,’ a colorful way of describing the cravings that happen while under the influence of cannabis. This effect occurs because cannabis’ most common chemical, THC, is able to stimulate the CB1 receptor and signal our brain that we should start hunting for carbohydrate rich foods.

Cannabis has helped increase weight gain for patients with conditions like HIV and cancer. For a while, this led researchers to believe that cannabis use always led to weight gain. They even tried creating a weight loss drug that blocked CB1 activation. While this did result in weight loss, it also impacted mood dramatically, leaving patients with severe depression.

Further research added complications to this picture. Larger longitudinal studies started to look at how cannabis use impacts obesity - and found surprising results. While they did find that cannabis users generally eat more calories than average - they didn’t see a corresponding increase in weight. Strangely, while cannabis users were taking in more calories, they actually weighed less and had lower levels of obesity.

So in stark contrast to the theory that cannabis will cause obesity, this research suggests that it actually protects from obesity. But how?

Some point to the fact that THC doesn’t just activate CB1, it also activates CB2, which can actually lead to weight loss and reduced appetite. And while this may be a factor, since we see increased calorie intake, a reduced appetite doesn’t explain this mystery away.

But another study has shed some light on this strange situation. In this animal study, researchers fed mice an increased calorie diet and gave some of them THC. While the mice who weren’t using THC gained weight in response to the high calorie diet, those who had also taken THC didn’t gain weight. When



they investigated further, they found that obese mice who were treated with THC had a gut microbiota that was more similar to that of a healthy mouse, than an obese one. The THC seemed to have transformed the gut microbiota to be able to better handle the increased food without converting it to increased weight. This could explain why cannabis users are able to eat more while weighing less.



Other researchers point to differences between chronic cannabis users and those who use it for a short period of time. They suggest that chronic cannabis use might protect from weight gain, while short term use may increase it. And there are also researchers who suggest cannabis use may be regulating weight in a way that increases weight for those who are underweight (like HIV and cancer patients) but reduces weight for those who are already heavier than is healthy for them.



So, while there still isn't widespread agreement on why, it's clear from the research that chronic cannabis is not a risk factor for obesity, and may even help prevent or treat it.

SENSI PRODUCTS AND WEIGHT CONTROL



If you are looking to add cannabis to your diet, as a way to prevent or treat obesity, Sensi has many products that might help. Keep in mind that some evidence suggests short term use of cannabis may temporarily increase weight gain, while long term use seems to protect against it. For this reason, committing to trying cannabis daily for a period of a few months is usually the best way to approach cannabis for weight loss. Most of the research above relates to THC, so you might try Sensi's higher THC products like Sensi Chew Sativa, Indica, and Hybrid. Still, for those who find the side effects of THC challenging, you might try Sensi Chew CBD Gold, an option with equal parts CBD and THC. CBD is able to reduce the side effects of THC so that you can gain the benefits of THC with reduced psychoactive effects.

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