

MYTHBUSTER MONDAY



Myth: Tryptophan in turkey is to blame for the Thanksgiving food coma.

Truth: Excessive eating and carbohydrate intake is more likely the cause.

With Thanksgiving approaching, we felt compelled to dispel a common myth surrounding this well-loved holiday and encourage healthier eating practices at the same time. If you have a tendency to indulge in all the fan-favorites, then you have probably experienced the fatigue that follows your Thanksgiving meal. And maybe you too have chalked it up to the suspicious nutrient found in turkey, tryptophan. Maybe you've even limited your consumption of turkey as a means to dodge this sleep-inducing culprit. Contrary to popular belief, tryptophan alone is not the cause of our post-meal food coma, and turkey is definitely not to be feared. A more likely cause of our afternoon crash is our tendency to overconsume carbohydrate-laden foods.

To gain a better understanding of how this myth originated and why our suspicions are wrong, it is important to define what tryptophan is. Tryptophan is an essential amino acid found in high-protein foods like poultry, fish, eggs, beef, nuts and seeds. It is needed for growth, nitrogen balance, and vitamin B synthesis. But more relevant to this topic, is its role as a precursor for serotonin - a neurotransmitter in the brain that leads to the production of melatonin (1). Because of the role that tryptophan plays in the production of melatonin, it makes sense that the amino acid has received the blame for our afternoon crash. However, turkey does not have any more tryptophan than other animal protein, such as chicken and pork. In fact, certain nuts, seeds, beans and cheese contain much higher levels of tryptophan (2) (find reference). Although tryptophan could cause drowsiness if it's consumed in supplement form, its effects are limited in the presence of other nutrients, such as fat, other amino acids (which turkey has many), and low glycemic carbohydrates (3). So why are we considerably more tired after our Thanksgiving meal?

Although we have dispelled the tryptophan content in turkey as the smoking gun, it may still play a role given the context of other nutrients consumed around the holidays and their metabolic effects. As previously mentioned, the effects of tryptophan are limited when the diet is balanced. Unfortunately, a traditional Thanksgiving meal is far from balanced. The dishes that make up the majority of the meal, such as mashed potatoes, sweet potatoes topped with marshmallows, dinner rolls, cornbread, stuffing and pies, are high-glycemic foods inclusive of refined carbohydrates and sugar. These high-glycemic foods are quickly absorbed resulting in "spiking" effects on blood sugar and insulin. Increased levels of blood sugar affect the metabolic activity of other nutrients, including tryptophan. Several studies have shown that in the presence of insulin, tryptophan accumulates more in the plasma making it more bioavailable to the brain - where the synthesis of serotonin and melatonin occur (3,4). Meaning, it is not the tryptophan alone that may lead to sleepiness, but the pairing with high-glycemic foods that does the trick. And finally, another significant factor at play is our tendency to overindulge around the holidays. An overconsumption of food directly affects the nervous system, switching on the parasympathetic system sending us into a "rest and digest" state, leading to fatigue (5).

In conclusion, if anything deserves the blame for our food coma, it's large portions of high-glycemic foods. Turkey is one of the few redeeming dishes in a traditional Thanksgiving meal so if you are looking to avoid the crash this year, taking steps to balance your meal, control your portions, and stay active are more effective strategies than fearing the turkey. We have compiled a list of our favorite holiday hacks to help you mindfully indulge and stay healthy this Thanksgiving.

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Tips for avoiding the Thanksgiving food coma:

- 1. Eat Breakfast:** While most people think it makes sense to save up calories for the big meal, eating a small meal in the morning can give you more control over your appetite and allow you to make better food and beverage choices throughout the day. Start your day with a balanced, protein-and-fiber-rich breakfast to help stave off the afternoon hunger and subsequent overindulgence.
- 2. Stay Active:** Long periods of being sedentary can contribute to the fatigue felt after feasting. Try incorporating a morning workout, short walks throughout the day, or an active game with your friends and family to avoid crashing after the meal.
- 3. Lighten Up:** Try healthier alternatives to your favorite Thanksgiving staples. For example, cauliflower stuffing over traditional stuffing, roasted root vegetables over sweet potato casserole, side salad over dinner rolls, sugar substitutes like monk fruit in place of sugar, or reducing the amount of sugar used in homemade desserts altogether.
- 4. Start Smart:** A good way to avoid overeating is to fill up on the most nutrient-dense and filling meal items first, such as protein-rich turkey and ham and fiber-rich vegetables and salads topped with healthy fats like avocado or olive oil dressing.
- 5. Watch your Portions:** The holidays are not a time to deprive yourself of your favorite treats but they don't need to be a time to overindulge in them either. Select small portions of the holiday favorites that only come around once a year rather than items you already enjoy all year long.
- 6. Skip the Seconds:** Try to resist the temptation to go back for second helpings and instead save room for a delectable dessert.
- 7. Go Easy on Alcohol:** Alcohol calories can add up quickly. To limit these calories and stay hydrated, opt for a glass of wine or a wine spritzer and enjoy sparkling water between alcoholic drinks.
- 8. Be Mindful:** Set aside time throughout the day to remind yourself what the holidays are all about and the importance of remaining healthy during them. Focus more of your attention on cherishing quality time with your loved ones instead of eating.

References:

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