

The Best **4 Foods** to Eat *Before* Bed

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In the world of nutrition and fitness, there exist many myths of fairy-tale proportions. For example, you've likely heard that you shouldn't eat after 6pm...or, is it 7pm? Not unlike the story of Cinderella's spell that wore off at midnight, so-called fitness experts would like you to believe that everything you consume after that "magical" time will quickly be turned into belly fat. Essentially, the widely-held belief is that eating after this cut-off time will not only hamper your weight loss efforts, it may even cause you to GAIN weight.

Well, we bear good news. Not every food that you eat past 7pm will be automatically deposited to your butt, thighs, and love handles. As a matter of fact, we are going to teach you exactly which foods to eat as a late-night snack to support your weight loss and body composition goals. You'll be extremely excited to learn that by choosing the right foods, you can accelerate fat loss, support your calorie-burning lean muscle, and improve recovery. Let's get started!

Setting Yourself Up for Failure

If you have placed this fictitious cut-off time on yourself before, you know that it requires great discipline and the exertion of exceptional will power. The reason is that satiety — feelings of satisfaction and fullness — decreases over the course of the day.¹² That's right, Father Time is actually working against you! This explains why you can eat perfectly well all day, yet begin ravenously eye-balling ice cream, donuts, and more as the day progresses.

Seeing that psychologists now believe that willpower is like a muscle and you have a limited pool of mental resources that you can use to overcome such enticing temptations,⁴ this self-imposed food curfew may lead you to succumb to those devastating food choices that can actually hurt you in your battle of the bulge. Why not remove this unnecessary ban and make choices that can actually help move closer toward your goals instead?

Hungry, Hungry Hormones

As day time and night time satiety have already been introduced into the conversation, it's important to discuss a couple key hormones before we delve into exactly which foods to eat and which to avoid. Specifically, let's briefly touch on the hormones insulin and glucagon.

Essentially, insulin is both a storage hormone and an anti-breakdown hormone. It is secreted by the pancreas in response to an elevation in blood sugar, as its primary task is to tightly regulate blood sugar levels. Thus, high carbohydrate foods have the greatest impact on insulin secretion. As a storage hormone, insulin's task is to push nutrients into the body's tissues, like muscle, fat, and the liver. Insulin can also put the breaks on lipolysis and fat oxidation (e.g., fat burning) and can increase the storage of carbohydrates as fat.⁸

Generally speaking, carbohydrate tolerance and insulin sensitivity are impaired as the day progresses,^{18, 27, 48, 49, 53} which means that controlling blood sugar levels and managing insulin become even more critical in the late-night eating window. Jacking up insulin at this time can sabotage your fat loss efforts.

This leads us to our first important point about food-making decisions before bed: Avoid carbs.

There is one caveat to this rule. If you have exercised within 1 – 3 hours before bed, then carbs are acceptable. Intense exercise essentially acts like an accelerated fast, and muscle contractions can dramatically increase insulin sensitivity^{20, 22} by increasing blood sugar uptake independently of insulin. As a matter of fact, taking in carbs with protein post-exercise improves muscle recovery and energy replenishment all while potentially increasing fat loss.³⁹ It's at this unique time when carbs are most likely to be stored in the muscles for energy, while fat is to be burned for fuel.⁵

While insulin is notorious for its ability to put the breaks on fat burning, leading to fat accumulation, glucagon is well-known for its ability to counteract the effects of insulin. Specifically, glucagon secretion results in an increase in fat burning,⁹ and also inhibits the release of insulin. Like insulin, glucagon is secreted by the pancreas; however, it is released in response to low levels of blood glucose and is stimulated by certain amino acids. As a matter of fact, high protein meals stimulate the secretion of glucagon from the pancreas, which results in an increase in fat burning.³⁸

This leads us to our second important point about food-making decisions before bed: Focus on high-protein foods.

Powerful Protein

It should be now clear that high-protein foods are far more favorable than high-carbohydrate foods for pre-bedtime feedings. Protein stimulates the release of the hormone glucagon, which accelerates fat burning and inhibits the release of the storage hormone insulin. Remember what we said at the beginning: by choosing the right foods, you can not only avoid weight gain, you can promote fat loss.

There are many other reasons to focus on a higher protein intake at this time. A high-protein snack not only encourages fat loss, but it also promotes overall health and supports the recovery and maintenance of our calorie-burning lean muscle.

High-protein diets also lead to better weight loss profiles than high-carbohydrate diets at the same calorie level.²⁵ What's more, high-protein diets spare lean muscle mass and help prevent a decrease in metabolic rate that is typically associated with reduced-calorie diets and weight loss.⁴⁴ Protein-rich foods are unique in that they induce a greater sense of satiety than other foods,^{2, 3, 6, 11, 19, 46, 48} which means that they'll best satisfy those late-night cravings. In addition, protein is calorically expensive to digest, absorb, and assimilate. It has a much greater thermic effect of feeding than other nutrients,^{23, 30, 33, 51} which means that you'll increase your metabolism by reaching for protein.

Not all proteins are created equally, however. It appears that at this late juncture in the day, slow-digesting proteins are the superior choice. First of all, fast-digesting proteins like whey lead to an insulin response that rivals that of heavily-processed, high-carbohydrate white bread,⁴⁰ and we already know that we want to do our best to keep insulin in check before bed.

What's more, fast-acting whey protein results in a dramatic but short increase in availability of amino acids, while slower-digesting proteins (e.g., casein) induce a much slower, sustained release of amino acids that can provide up to 7 hours of sustained nutrition,⁷ to cover nearly the entire overnight fast.

As a matter of fact, consuming slow-digesting protein before bed helps to stimulate muscle growth and improve whole-body protein balance if you've exercised earlier in the day, offering body composition benefits while you sleep.³⁷ Researchers noted:

“During sleep casein protein was effectively digested and absorbed resulting in a rapid rise in circulating amino acid levels which were sustained throughout the remainder of the night. Protein ingestion prior to sleep increased whole-body protein synthesis rates ... and improved net protein balance ...”

The Top Pre-Bedtime Food Choices

Now that we know exactly which nutrients to consume — and which to avoid — to fuel our goals, let's talk about the best foods to eat. After all, we EAT food, not nutrients.

1. White Meat Protein

White meat animal protein sources such as chicken and turkey — as well as eggs — are great pre-bed meal choices. These slow-digesting proteins will provide a sustained release of amino acids, increase satiety, elevate your metabolism, and stimulate your body to secrete glucagon. That's a grand slam!

Why not red meat, you ask? According to a study by researchers in Australia, red meat may result in a higher insulin response than that of white pasta.²¹ As a result, it may not be your best option because, remember, we want to keep insulin levels at bay before bed.

Fish is also probably best to avoid at this time as well. In the same study, researchers found that the insulin response to fish rivaled that of high-carbohydrate whole-grain bread.

Stick with the white meat, like turkey and chicken. While it's certainly up for debate, turkey contains high concentrations of the amino acid tryptophan, which may help your sleeping efforts by promoting relaxation and drowsiness. A double-win!

2. Cottage Cheese

Milk protein is approximately 80% casein and 20% whey. As you already know, the former is a slow-digesting protein while the latter is a fast-digesting protein. Cottage cheese is a milk-based food that is predominantly casein.

As mentioned previously, casein protein provides optimal recovery benefits as a pre-bedtime protein, and it provides up to 7 hours of sustained nutrition. Add to these highlights an increase in feelings of fullness, a ramped up metabolism, and the release of the fat-burning glucagon, and you've got another five-star choice.

Make sure that you opt for good ol' plain cottage cheese, not the flavored varieties. The latter have added sugars that will cause a rapid elevation in blood sugar and a resultant insulin response that will blunt fat burning. Choose an organic variety whenever possible. This typically implies that the animals were not treated with dangerous growth hormones or antibiotics, and they were likely pasture-raised and fed a healthier diet, which will mean a better fatty acid profile also.

3. Green Vegetables

Didn't see this one coming, did you? Veggies, despite being classified as carbohydrates, are low glycemic and will not promote much of an insulin response, if at all. In fact, rather than just being okay, this is a great time to increase your vegetable intake. Consuming some veggies late at night will not only help subdue cravings, they're rich in much-needed micronutrients and can help you balance out your body's acidity, especially if you are going to add some protein.^{36, 41}

It's important to balance out the body's acidity (e.g., pH) for multiple reasons. If the body's pH is not balanced, it can lead to the following negative health consequences¹:

- » Decreased growth factors
- » Growth hormone resistance
- » Mild hypothyroidism
- » Higher levels of blood cortisol
- » Loss of muscle mass

- » Enzymatic changes in the cell
- » Altered regulation of metabolites and minerals
- » Decreased uptake and release of oxygen

What's more, veggies are high in fiber, which can also positively impact satiety. As a matter of fact, fiber can stimulate special cells within the GI tract to secrete hormones that communicate satiety to the brain.⁵² Because veggies contain virtually no calories, they are a great option for “snackers” or folks who like to eat while watching television or reading. Rather than reaching for that bag of high-carb, insulin-spiking potato chips, slice up some multi-colored bell peppers, celery, cucumbers, and cauliflower and snack away!

4. A Slow-Digesting, Low-Carbohydrate Protein Shake

This may be the King of Kings when it comes to pre-bedtime foods. If you have any kind of sweet tooth whatsoever, this offers the perfect combination of slow-digesting, glucagon-inducing, metabolism-raising, appetite-satiating proteins along with the great taste and satisfaction of a delicious milkshake.

A great-tasting smoothie combined with some healthy fats like almond butter or coconut oil not only fits the bill of the pre-bedtime criteria we've outlined already, it may provide some additional advantages. Specifically, adding some “good” fats can actually slow the rate of gastric emptying, which means that you'll experience even greater appetite satisfaction and a further sustained release of amino acids.^{16, 45}

On top of that, adequate dietary fat is necessary for a whole host of functions. Dietary fats:

- » help manufacture and balance hormones
- » form our cell membranes
- » form our brains and nervous systems
- » help transport fat-soluble vitamins
- » provide essential fatty acids that the body can't make

Fats will not negatively affect your blood sugar or insulin levels. Rather, the combination of high protein and some good fats may actually help your body transition into the ideal

fat-burning mode.³⁸ In addition, adequate and balanced dietary fat intake is necessary to optimize levels of the all-powerful hormone testosterone, which plays a critical role in recovery, metabolism, and fat burning.^{13, 14, 35}

As previously mentioned, it is incredibly important to opt for a time-released protein blend before bed (e.g., one that contains casein and/or milk protein), as slow-digesting proteins are superior at this time. Specifically, avoid consuming whey protein-only supplements, as they lead to a dramatic increase in insulin that rivals that of white bread. Additionally, whey protein provides amino acids for only about 1 ½ hours, whereas the slower-digesting casein provides up to 7 hours of sustained nutrition.

Nighty Night

At this point, it should be increasingly clear that everything you eat after 7pm isn't going to magically be attached your belly or your butt. As a matter of fact, you may be setting yourself up for failure by observing such a silly "rule." What's more, you should also realize that you can accelerate your body transformation progress by eating before bed and choosing the right foods. By selecting the right foods, you can optimize your fat-burning hormones, promote the recovery of your calorie-burning lean muscle mass, boost your metabolism, and increase your overall sense of satiety.

Here's a recap on the BEST foods to eat before bed:

- » Slow-digesting proteins, like chicken, turkey, eggs, cottage cheese, and time-released, low-carbohydrate protein shakes
- » Low-calorie, low-glycemic, high-fiber veggies
- » Healthy fats

Remember, it's as much about what you DON'T eat as what you DO eat.

1. The first rule of thumb is to avoid carbs, which result in a rapid increase in blood sugar and insulin that will blunt your fat-burning efforts and contribute to weight gain later in the day.

2. Choose time-released protein blends in favor of simple whey protein-only supplements, as the latter leads to a dramatic increase in insulin and does not provide the same long-standing nutrition as slower-digesting proteins overnight.
3. Most of all, don't become a slave to some fairy tale myth. I promise, if you choose the right foods, when the clock strikes 7pm you won't magically add belly fat — or, turn into a pumpkin.

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