

## AMPK and Belly Fat

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**A major contributor to abdominal fat buildup is the age-related decline in AMPK, an enzyme that helps regulate fat storage.**

We all have a “master switch” in our bodies. It regulates all kinds of systems in the body like energy usage or metabolism. This master switch is called the **Adenosine Monophosphate-activated Protein Kinase or AMPK**.

Activated AMPK triggers beneficial effects such as a reduction in fat deposition. The marked decline in **AMPK** that occurs with aging results in increased fat (abdominal fat), destructive metabolic consequences ([insulin resistance](#)) and hypertension.

### What AMPK does:

- Regulates energy metabolism
- Increases fat-burning
- Increases the utilization of glucose while blocking fat and cholesterol synthesis

AMPK improves glucose uptake so it lowers your blood sugar, increases the burning of stored fat, and decreases your blood triglycerides. It decreases fat-related chronic inflammation, which means that it is targeting the inflammatory fat or the abdominal fat specifically. Abdominal fat has more inflammatory potential than fats in other parts of the body.

### 2 Factors That Decrease AMPK Activation

- Age
- Chronic overeating

### How to Boost AMPK Activation

There are pharmaceutical, botanical and lifestyle things that you can do to boost AMPK activation.

#### Metformin

Metformin is commonly prescribed to Type II diabetes patients. It turns out that metformin activates AMPK.

It may be beneficial for you to stay on this medication if your doctor prescribed this to you, although like all pharmaceuticals, it has potential side effects that you should educate yourself about.

#### **Intermittent Fasting**

Fasting can also activate AMPK. Fasting, not eating, activates longevity factors. When you fast, you're improving the quality of the function of mitochondria.

**HIIT (high intensity interval training)**- some studies showed that four 30-s bouts of all out cycling increased AMPK immediately following exercise

#### Botanicals

The following two botanicals have promise to increase/activate AMPK

Extracts of ***Gynostemma pentaphyllum*** reduced deadly abdominal fat accumulations in people with abdominal obesity and metabolic syndrome.

And the citrus flavonoid ***hesperidin*** produced complementary reductions in inflammation, and improvements in blood-vessel performance, all of which help to further mitigate the problems associated with abdominal fat.

Together, these two compounds provide a dual-action approach to reducing problematic abdominal fat.

**\*\* As always check with your physician before considering to take *Gynostemma pentaphyllum* and hesperidin**

#### References

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