

# Forskolin for Weight Loss: The Real Deal or Just Another Hyped Supplement?

By [Rebekah Edwards](#)

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Dr. Axe



Isn't it exciting to hear about a weight loss supplement that can simply melt away fat and leave muscle mass unaffected? The answer is, of course, "yes." However, your follow-up question should then be, "Does it really work?" And the answer to that question is rarely as positive as the initial assertions may sound. This is no different in the case of forskolin, a compound found in a plant in the mint family.

One Google search for "forskolin" yields an unending stream of websites reporting that people have experienced massive weight loss with no side effects when taking supplements of the extract. Everyone from TV doctors to nutritionists praise it as the best new weight loss answer, but its real effects may surprise you. While it may not have mythical fat-burning power, forskolin is very useful and has several benefits, both related and unrelated to weight loss and management.

So, read on, and discover the real benefits and truth about forskolin [supplementation for weight loss](#).

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# Is Forskolin Truly a ‘Magic’ Weight Loss Supplement?

There’s a current trend of using forskolin supplements to lose weight — a trend that exploded when a popular weight loss television doctor introduced it as “lightning in a bottle” and “a miracle flower.” It’s hard to ignore when the assertions many nutritionists and people regularly taking forskolin make include such things as losing 10 pounds in one week with no other significant changes to diet or exercise routine.

I continue to passionately support the statement that “[food is medicine](#).” Scientifically, the impact of food and natural substances on our bodies is much greater than we have been led to believe. Solid scientific studies and research back up this claim (even when “modern” medicine ignores it), so it’s important to know what science *really* says about nutrients like forskolin, especially when the results we’re shown are so incredible.

So, does forskolin work? The truth is that forskolin has various benefits (which I’ll explain a little later), but its role in weight loss is not quite as “magical” as some have insisted.

Here are the facts:

## **1. There have been only two reputable studies regarding forskolin and its impact on weight loss in humans and one additional study conducted on rats.**

The first human research on its effects on weight loss was conducted in 2005 on 30 overweight or obese men by the University of Kansas. This 12-week study involved each man taking either a placebo or 250 milligrams of a 10 percent forskolin extract orally two times each day. (1)

Later that year, a second human study conducted at Baylor University and published in the *Journal of the International Society of Sports Nutrition* was conducted with 23 mildly overweight women. They were given the same dosage as the men in the first study, also for a 12-week period. (2)

In the rat study (from 2014), scientists administered forskolin and/or rolipram to 50 female rats over the course of 10 weeks, splitting them into five control groups, including a control group and four combinations of diet plus supplementation. (3)

## **2. In these studies, scientists determined that forskolin does not seem to promote weight loss, but it may help prevent weight gain.**

The first study on obese/overweight men found forskolin to have a positive impact on body composition, decreasing body fat percentage and fat mass. Other significant results included an increase in bone mass and testosterone levels in the blood. Oddly, the group receiving it actually had higher testosterone levels at the beginning of the study than the control group.

Sounds great, right? Here’s where it gets interesting: Although forskolin did seem to impact body composition, the participants in this study did not actually lose weight. They certainly did

not see the kind of results that would lead to claiming forskolin to be a miracle “fat-melting” cure.

A few months later, the second human study was completed, this time on 23 women. Again, these women received the same dosage for the same time period, as the first study. Unlike the first study, researchers found “no significant differences in fat mass or fat free mass,” meaning that body composition was not affected. In addition, no significant differences were found in any metabolic markers or blood lipids (such as increased testosterone found in the first study).

They did postulate that forskolin seemed to prevent the development of new fat mass and that the subjects taking it reported less fatigue, hunger and fullness. Essentially, the placebo and forskolin had identical effects, exempting mild fatigue and **satiety** markers.

The rat study concluded that “both forskolin and rolipram stimulated lipolysis and inhibited body weight increase by increasing cAMP levels.” So, forskolin increases levels of cAMP, or cyclic amp, which is a molecule that in elevated levels helps boost fat burning compounds. In layman’s terms, the scientists found that forskolin did prevent weight gain, even on a diet that caused rats in other diet groups to gain significant amounts of weight. This is in line with the second study, finding that supplementation may help manage weight gain.

What am I getting at here? Forskolin, while offering some benefits and potentially helping **manage obesity** by preventing additional weight gain, does not “melt away belly fat” — at least, according to scientific evidence.

As always, the most effective way to safely lose weight is to eat a diet of unprocessed, life-giving foods, exercise regularly and use scientifically supported methods of “extra help” in your weight loss journey, such as **essential oils for weight loss** or safe supplements. It’s not impossible to **lose weight fast**, but it usually won’t happen because of one unproven pill.

One important conclusion all of these studies also reached is that forskolin did not seem to have “clinically significant side effects.” Near the end of this article, I’ll discuss the potential drug interactions and side effects of forskolin, but these small-scale studies did not find evidence to support any major issues.

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## Benefits of Forskolin

Now, don’t get discouraged. While forskolin may not be the miracle weight loss drug many are looking for, it does have several benefits that are supported by scientific evidence.

### 1. Helps Manage Weight in Overweight/Obese People

As I mentioned, forskolin does have promising results in its ability to prevent weight gain in already overweight or obese people. Used in conjunction with a healthy lifestyle, it can be used to help manage a healthy weight.

Another study supporting it for weight management was conducted on a topical slimming product in 2011. The product contained tetrahydroxypropyl ethylenediamine, caffeine, [carnitine](#), forskolin and [retinol](#). After 12 weeks, circumference of all treated areas (including waist, hips, buttocks and abdomen) had decreased, and the appearance of **cellulite decreased** significantly by week eight. While this does not directly affect fat mass, it may be worth mentioning for those who are concerned about the physical appearance of body fat. (4)

## 2. May Be Effective as Part of a [Treatment for Cancer](#)

Forskolin activates protein phosphatase 2 (PP2A), an enzyme that causes rapid rates of cell division. A study in 2011 at the University of Madrid found that forskolin's activation of the PP2A enzyme had anti-tumor effects on rectal cancer tumors, stopping their growth. The results of this study indicate that, depending on the type of rectal cancer a patient has, forskolin may have positive effects on slowing or stopping tumor growth. (5)

Researchers also discovered that forskolin has the ability to cause apoptosis (cell death) in [multiple myeloma](#) cancer cells. Additionally, when taken with common (and dangerous) chemotherapy drugs, it reduced the side effects caused by the treatments. (6)

## 3. Reduces High Blood Pressure

One of forskolin's most ancient uses is to treat heart conditions, such as hypertension. A study done in India found *Coleus forskohlii* extract to effectively reduce blood pressure in more than 75 percent of the patients tested. (7) This power against high blood pressure probably contributes to forskolin's accepted use in improving heart health.

It's possible to naturally reduce [high blood pressure symptoms](#), and forskolin may be one piece of that puzzle. My recommendation to those suffering from high blood pressure is to reduce intake of foods that make blood pressure higher (such as alcohol, sugar, high-sodium foods and caffeine), start eating foods proven to lower blood pressure (the [Mediterranean diet](#), high-potassium foods, tea, dark chocolate and more), and use other natural blood pressure-lowering methods. There are several supplements and essential oils that have a positive impact in reducing high blood pressure, and regular exercise and stress reduction also play a large part.

## 4. Lowers Blood Sugar Levels

A 2014 study on glycemia and oxidative stress in rats looked at forskolin's effectiveness on the two conditions. The study, published in the *International Journal of Medical Sciences*, indicated that regular administration of forskolin (over the course of eight weeks) decreased fasting blood

glucose levels. (8) While this preliminary study shows that this supplement may help diabetic and prediabetic patients, more research must be done in order to prove its level of efficacy.

Interestingly, the study found no antioxidant activity significant enough to mention. Many champions of forskolin claim it to have significant antioxidant content, but this has not been proven. The evidence does, however, suggest its use to maintain **normal blood sugar** levels.

## 5. Helps Manage Asthma Attacks

**Asthma**, a condition in which airways become inflamed and swollen, is another condition historically treated by forskolin. It turns out that these benefits are very real indeed. Traditionally, asthma is treated by steroidal inhalers or cromoglicic acid, a non-steroidal inhaler, as well as various anti-inflammatory drugs and bronchodilators — the latter of which is used for emergency treatment to open airways during an asthma attack.

As I explain above, there are foods to eat and avoid to prevent and reduce the severity of asthma attacks, in addition to some supplements and essential oils that may help. Forskolin is another supplement that has positive effects on asthma patients.

It's been found to be more effective than cromoglicic acid in at least one study testing forskolin's ability to prevent asthma attacks, as participants taking it experienced about half of the asthma attacks as those taking cromoglicic acid. (9) Another experiment comparing forskolin to **beclomethasone**, a common steroidal inhaler treatment for asthma, found "no statistically significant difference between the forskolin and beclomethasone treatment groups," indicating this may be a natural and relatively safe treatment option for asthma sufferers. (10)

## 6. Treats Symptoms of Glaucoma

Forskolin has long been believed to effectively and **naturally treat symptoms of glaucoma**. Commonly, using it for glaucoma involves an injection directly into the eye, although some recent studies have researched the impact of orally administered supplements as well.

One such occasion focused on the control of intraocular pressure, the fluid pressure within the eye. Maintaining stable intraocular pressure is the goal of many common glaucoma treatments for patients with primary open-angle glaucoma, the leading cause of irreversible blindness in the world.

An Italian study focused on patients who were already at the maximum tolerated medical therapy levels of medication without improvement to their intraocular pressure. Astoundingly, researchers found that taking forskolin orally (along with another supplement, **rutin**) had a significant impact on pressure levels and offered an effective treatment for patients who had tried everything else short of surgery. (11)

A normal prescription for glaucoma patients includes **beta blockers** and/or prostaglandin analogs. Both of these medication classes have dangerous side effects, including fatigue, depression, **constipation**, erectile dysfunction, itchy or burning eyes, and upper respiratory tract

infection. To find a more scrupulous option, scientists in India found that eye drops containing 1 percent forskolin were a safer, effective option to beta blockers and prostaglandin analogs for glaucoma patients. (12)

Another glaucoma-related question is whether or not forskolin can be effective in preventing retinal ganglion cell death, the final step into blindness for glaucoma patients. Forskolin alone had some effect, but researchers discovered that a multi-target approach including two additional natural supplements, homotaurine and L-carnosine, protected the health of the eye best when injected. This study has, so far, only been conducted on rat subjects. (13)

## 7. May Be a Useful Alzheimer's Treatment

Like a lot of research on forskolin, the research linking it with a treatment for Alzheimer's is in its infancy. However, a promising study published in the *Journal of Neuropathology and Experimental Neurology* performed on rats in July 2016 found administration of forskolin greatly decreased many negative physical components caused by Alzheimer's disease, including plaque in various areas of the brain and reduced inflammatory activity. This is incredibly encouraging in the area of [natural Alzheimer's treatment](#). (14)

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## Forskolin vs. Garcinia Cambogia

The effects of forskolin are often claimed to be similar to that of [garcinia cambogia](#), another natural "miracle" weight loss supplement. However, like most "miracle" supplements, its true results are not quite as exciting as the testimonials. Like forskolin, garcinia cambogia gives some minor aid in weight loss but is not effective at "[melting belly fat away](#)."

Let's take a look at the similarities and differences of these two hyped supplements.

### Both:

- Have been named as groundbreaking weight loss drugs in some popular media outlets
- Help manage or aid in weight loss to a small degree (with garcinia cambogia having slightly more impact on the weight loss side)
- Lower blood sugar
- Are natural, unregulated supplements originating from plants
- Have been used in ancient natural medicine (especially in India) to cure various diseases
- Do not have agreed upon "normal" dosage levels
- Have potentially dangerous medicinal interactions
- Should not be taken by women who are pregnant

### Differences:

- Forskolin has minimal side effects, while garcinia cambogia has been linked with many dangerous side effects, including fatigue, **brain fog** and several more.
  - Garcinia cambogia has been proven to help curb cravings and suppress appetite, while no significant evidence exists that forskolin does so.
  - The benefits of garcinia cambogia that can be proven (in conditions unrelated to weight loss) are limited to lowering cholesterol. Forskolin, however, has been effectively proven to be a powerful catalyst in the treatment of various disorders, such as certain cancers, **glaucoma**, high blood pressure and more.
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## How to Use Forskolin

You can buy forskolin in various forms. Over-the-counter (OTC) forskolin powder is available in supplement form. It may also be prescribed in powder form via inhaler (for asthma) or injected directly into the eye as part of a glaucoma treatment regimen.

Like many supplements that are commonly used for weight loss, there are many disreputable companies selling what they claim to be forskolin extract that are dangerous and contain unnamed ingredients. If you buy forskolin, I recommend pure forskolin. For safety reasons, it's important to only purchase supplements from trusted companies, follow dosing instructions carefully and take these supplements under the supervision of your doctor.

Only doctors can prescribe inhaled or intravenous forskolin. If you believe these treatments may be beneficial to you, please see your health care provider.

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## What Is Forskolin?

Extracted from the plant *Coleus forskohlii*, (alternatively, its also known as *Plectranthus barbatus*) forskolin is a chemical compound that's been used for centuries in various forms of natural medicine. You may hear it also referred to interchangeably by its plant name or as Indian coleus, borforsin, coleus, forskohlii or coleus barbatus.

Historically, *Coleus forskohlii* has been used in Brazil, eastern and central Africa, India, and other Asian countries. *Coleus forskohlii*, or Indian coleus, is often said to be an important part of **Ayurvedic medicine**, a millennia-old healing science that focuses on wholeness and entire body health. Forskolin has been used to treat heart problems, digestive disorders, skin damage (such as burns or cuts), skin conditions (like eczema and psoriasis), urinary tract infections (UTI), asthma and various other conditions.

More recently, it's played an important role in scientific research because of its ability to activate cAMP accumulation. (15) What does that mean, exactly? Well, cAMP (also known as cyclic adenosine monophosphate or cyclic amp) is a "second messenger" that impacts various

biological processes. These second messengers are responsible for helping your cells understand how to process the messages of various “first messengers,” like [epinephrine](#) or [serotonin](#). The first messengers begin cellular processes, and then second messengers act as translators in cellular processes within your body.

The activation of cAMP is important because cAMP helps regulate blood glucose and fat metabolism levels.

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## Forskolin Side Effects and Precautions

While there are no noted side effects in some weight loss studies of forskolin administration, it’s important to be aware of the few potential issues and interactions you could experience.

One lab study observed the effects of forskolin on genetic material and found evidence of genotoxicity, the destruction of DNA that can potentially lead to mutations and cancer. [\(16\)](#) Taking forskolin may also cause rapid or irregular heartbeat in some people, so if you experience these symptoms while taking it, you should discontinue use and see your doctor immediately.

Because of the way it lowers blood pressure, those with low blood pressure already should avoid taking forskolin. Anyone currently taking beta blockers or nitrates for chest pain should also steer clear of taking this supplement. People who are pregnant, nursing, have blood disorders, are about to have or just had surgery (within two weeks), or are suffering from heart disease should not take forskolin.

Some reports indicate inhaling it for asthma can cause throat irritation, cough, tremor and restlessness. Intravenous eye injections may cause stinging.

There are also preliminary indications that forskolin may increase cyst size in women with [polycystic ovarian syndrome](#), so you should not take it if you have been diagnosed with PCOS. [\(17\)](#)

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## Final Thoughts on Forskolin

- Forskolin is a plant-based molecular compound extracted from the *Coleus forskohlii* plant in the mint family.
- Natural health practitioners have prescribed it for centuries to treat various diseases and health conditions.
- Forskolin is a common “natural weight loss supplement” promoted by countless companies and media personalities, but its benefits are not as extreme as they’re claimed to be by many.



- There is no scientific evidence to support that forskolin burns fat or causes you to lose weight, although it may prevent weight gain without changing your diet.
- The benefits of forskolin are plentiful and range from blood regulation to a potential treatment for Alzheimer's.
- You can purchase it in supplement form, but be cautious of the manufacturer and reseller, as many so-called "pure forskolin" supplements are dangerous and contain unnamed ingredients.
- Doctors may prescribe forskolin in inhaler form or inject it intravenously into the eye, depending on the condition being treated.
- There are various drug interactions and potential side effects associated with forskolin, so you should consult with your health care provider before starting forskolin and self-monitor for common side effects.
- If you have PCOS, heart conditions, low blood pressure, bleeding conditions, or are pregnant or nursing, you should avoid taking forskolin.

