

# OTC supplement berberine is all over social media—does it really help you lose weight?

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Credit: AI-generated image (disclaimer)

The latest health trend on TikTok <u>has been dubbed</u> "nature's own Ozempic". It's the herbal preparation berberine.

Influencers have been enthusiastically claiming its success in helping them lose weight, with their posts <u>viewed by millions</u>.



But what actually is berberine? How is it related to the drug Ozempic? Does it help people lose weight? And is it safe?

## Why berberine? What is it anyway?

Many people who cannot lose weight through diet and exercise turn to medication. That includes the high-profile prescription medicine Ozempic, a diabetes drug that also leads to weight loss.

World-wide <u>supply shortages</u> of the drug and the need to get a prescription for it have likely driven people to look for alternatives available online or in pharmacies, such as berberine.

Berberine is a bitter tasting <u>chemical</u> extracted from the roots of plants, such as goldenseal and barberry.

It belongs to the class of plant chemicals called <u>isoquinoline alkaloids</u>. Other well known chemicals in this class include the pain-relieving medicines morphine and codeine.

Berberine extracts have been used in traditional medicines for disorders of the gut and to treat infections. It is mostly taken orally as a powder, capsule or tablet.

## Is it the same as Ozempic?

Berberine is not the same as Ozempic. Ozempic is the brand name of the drug semaglutide, which is used to treat people with type 2 diabetes.

Ozempic works by imitating a natural hormone called <u>glucagon-like</u> <u>peptide-1</u> (GLP-1). This hormone is important because it helps the body produce insulin to regulate <u>blood sugar levels</u>.



More recently, Ozempic has been shown to be effective for <u>weight loss</u> in people who are overweight or obese. By mimicking GLP-1, Ozempic makes you feel full and less hungry.

# Does berberine help you lose weight?

In <u>clinical studies</u>, berberine leads to modest weight loss in people who are obese. But the data are not conclusive as most published studies are small and of varying quality.

The strongest evidence we have comes from two <u>meta-analyses</u>, types of studies that pool together and analyze the results of other studies.

These show that taking a 300-3,000mg berberine a day orally is associated with <u>modest reductions</u> in <u>body mass index</u> (BMI), waist circumference and body weight (around 3kg). These results were <u>most significant</u> in women with a BMI great than 30, taking at least 1,000mg daily for at least three months.

Studies have only been conducted with people who are overweight or obese. So we don't know whether berberine leads to weight loss in others.

We also don't yet have the data to say what happens when people stop taking berberine.

We don't exactly know how berberine works to help people lose weight. But a recent <u>systematic review</u> (when researchers pool together evidence) gives some clues.

It influences GLP-1 levels like Ozempic, but probably results in <u>weight</u> <u>loss</u> in other ways too. It decreases blood sugar levels, stimulates insulin release, influences how the body absorbs cholesterol, and changes the



way fat is processed in the body.

# Is berberine safe?

Just because berberine is sold over the counter, doesn't mean it's safe. It can have <u>side effects</u> and interfere with other drugs you may be taking.

<u>Common side effects</u> include diarrhea, constipation, gas and an upset stomach. Large quantities may be fatal.

Berberine is not recommended for people who are pregnant as it is thought it can cross the placenta and may harm the fetus. It may also stimulate contractions of the uterus, which can inappropriately trigger birth. Because it can be transferred to <u>breast milk</u> it is not appropriate if breastfeeding.

Berberine can also interact with many other drugs and supplements. These include the immune-system drug ciclosporin, cough suppressants like dextromethorphan, and <a href="herbal remedies">herbal remedies</a> and medicines used to lower <a href="blood pressure">blood pressure</a>, lower blood sugar levels, reduce blood clotting, and help with relaxation and sleep.

#### So what to do?

If you are obese or overweight and are having trouble losing weight through diet and exercise alone then berberine may be of some help.

However, before buying berberine, discuss it with your doctor or pharmacist to see if it will be safe for you, or if other medications might be more appropriate.

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