

Magic mushrooms?

DO MUSHROOM SUPPLEMENTS LIVE UP TO THE HYPE?

BY JESSIE SEILER

Mushrooms supplements are having a moment. Whether you're looking for some fungus for your gut, a shroom to turn your white blood cells into "stronger and more efficient fighters against diseases," or a "happiness booster" that also sharpens your focus, mushroom companies have a pill, powder, coffee, or gummy for you. Is there anything to it?

Shroom for improvement

"Mushroom supplements offer a natural way to support energy," says Hamilton's, which sells a mushroom blend you can add to your morning coffee.

"There's this interest in trying to get the most out of every bite, and added powders fit into that ethos," says Meghan Laszlo, a registered dietitian at Cedars-Sinai Medical Center in Los Angeles.

Hamilton's message: Make a small change to your morning coffee by adding our blend, and you'll be energized all day.

But companies' sweeping promises should give you pause.

"When there are a lot of different claims about how many diverse benefits a product could have, it's claiming to be a panacea," says Laszlo.

"You have to stop and look and say, 'Okay, where are these claims coming from? Is there any evidence to support them?'"

Other experts agree. "You know the Neighborhood of Make-Believe from the children's television show *Mister Rogers' Neighborhood*, where you could let your imagination go?" asks Pieter Cohen, an associate professor of

medicine at Harvard Medical School. "That's where the supplement manufacturers live when it comes to promoting their mushroom supplements."

And many of them encourage your imagination to go pretty far.

That's because companies aren't allowed to say that their supplements will treat or prevent a disease, but they *can* say that they support the body's "structure" or "function."

So "treats ADHD" is a no-no. But "supports focus"? All good.

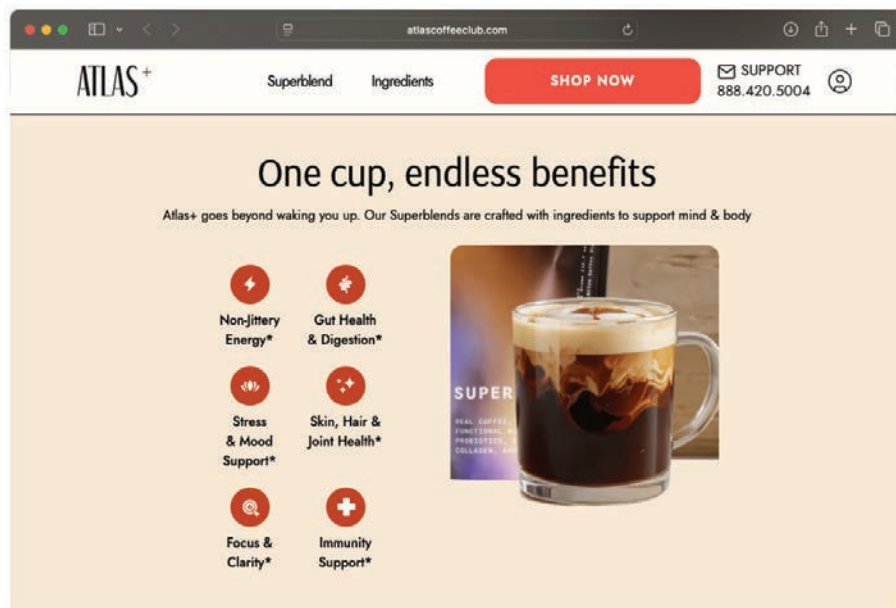
Supplement companies also don't have to disclose their manufacturing process. So you may not know what's in that "mushroom extract."

"Are companies just drying out the mushroom and cutting it up?" Cohen asks. "Or are they extracting some chemical from it? Whatever they're doing can have different effects on the composition of the final product."

Cognition

"Sip smarter. Not harder," says Shroomi, whose mushroom-coffee blend promises "improved mental clarity, enhanced productivity, long term brain health and energy!"

An 8 oz. cup contains 80 milligrams



Red flag: Mushroom supplement companies' sweeping promises to fix a wide range of problems.

of caffeine—roughly what you’d get in a regular cup of coffee—plus extracts from lion’s mane, a mushroom that Shroomi says “helps support memory, focus, and mental clarity.”

Will that deliver “the added brain boosting benefits of functional mushrooms” that Shroomi promises? At \$37 for a 10 oz. bag (which makes 24 cups), it better.

Yet only a few small studies have tested lion’s mane’s ability to enhance cognition.

In the largest clinical trial on healthy people, researchers randomly assigned 43 adults to take 1,800 mg of lion’s mane or a placebo, then gave them seven tests of attention and memory an hour later.¹ (Eight ounces of Shroomi’s blend has about 290 mg of lion’s mane.)

Those given lion’s mane performed better on just one of the tests. How much better? They responded, on average, about one-twentieth of a second more quickly. Is that going to make a big difference in real life? Not likely.

While the evidence on lion’s mane is thin, chaga (another common mushroom in alt-coffees) has even less going for it. In fact, we couldn’t find a single brain-health trial of chaga in people in a peer-reviewed journal.

Gut health

“Nourish your gut microbiome with our premium digestive wellness supplements,” says Plant People, whose mushroom gummies—a 30-day supply will set you back \$30—“support healthy gut microbiota.”

What, exactly, is doing the supporting? Plant People’s Wonder Day Mushroom Gummies contain turkey tail and maitake mushrooms.

The evidence for both? Pretty unimpressive.

In a test-tube study, when researchers treated a culture of cells that resembled the human gut microbiome with a compound found in turkey tail

mushrooms, they saw higher levels of “good” bacteria like *Lactobacillus* and lower levels of “bad” bacteria like *Clostridium* compared to a control compound.

But a randomized trial of healthy people who took the same compound for two months didn’t find meaningful changes to their gut microbiome.² (Both turkey tail studies were partly funded by supplement companies.)

As for maitake, we couldn’t find any peer-reviewed clinical trials that looked at its effects on the gut microbiome.

Instead of supplements, your best bet to encourage a diverse gut microbiome is to eat a variety of fiber types, says Laszlo. You can do that by loading up your plate with plenty of whole plant foods: vegetables, whole grains, nuts, seeds, beans, lentils...and, of course, mushrooms.

Immune support

The reishi mushrooms in MUD\WTR’s coffee “support a healthy immune system.”

Does that mean that drinking it can help ward off a cold, the flu, or some horrendous disease? The company can’t legally say that, but it would probably love you to believe it.

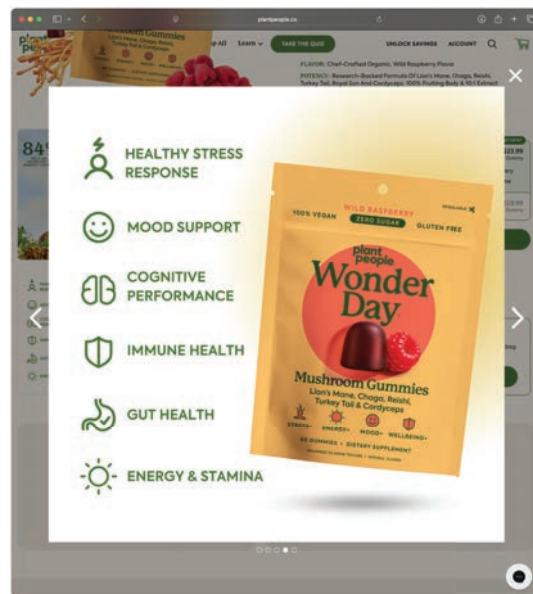
Reishi does show some promise, at least in test-tube and animal studies. For example, fish fed a protein that comes from reishi were better able to fight off viral infections than fish fed their normal diet.³

But we couldn’t find any clinical trials that have tested reishi’s ability to keep humans from getting sick.

More research is needed

So, are mushroom coffees and supplements worth buying?

The evidence so far isn’t enough for



The evidence that mushroom supplements live up to any of these claims? Paltry.

Laszlo. “I have an evidence-based practice,” she says. “I think the animal and test-tube studies are interesting, but I would never suggest a patient follow something that’s shown in lab animals without first testing it in people.”

Why not? “We don’t know how the study results might be different when they’re actually done in humans,” Laszlo points out. In fact, more often than not, findings from animal studies don’t translate into successful drugs or treatments for people.

But supplement makers have no reason to fund clinical trials of their products, Cohen points out, since they’re already cashing in without having to do the research.

Bottom line

Despite the hype, the evidence for mushroom coffees and supplements comes up short. If you want to try them, be our guest. Just don’t expect enhanced focus, balanced hormones, or a future without colds or flu. 🚫

¹ *Nutrients* 15: 4842, 2023.

² *Gut Microbes* 5: 458, 2014.

³ *Fish Shellfish Immunol.* 32: 986, 2012.