## **SUPER AGE**

# Add These Plant Compounds To Your Diet for Energy, Focus, and Stamina

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Boost your energy, sharpen focus, and support recovery with science-backed herbs and fungi known as adaptogens.

If your diet is dialed in but you still feel drained, foggy, or flat, it might be time to look beyond macros.

Enter plant compounds that support your stress response, energy levels, and mental clarity, also known as *adaptogens*. These roots, herbs, and mushrooms have been used for centuries in traditional medicine, and now research is beginning to validate their role in modern nutrition.

From cortisol control to brain health and post-workout recovery, here's what they can do, and how to use them to support your performance and longevity.

Adaptogens are finding their way onto grocery store shelves, in everything from stress-relief gummies and brain-boosting powders, to functional ice creams and beverages. And while they are trending now, they are health compounds rooted in the **pharmacopoeias** of ancient China, Siberia, and Scandinavia.

The modern concept of the "adaptogen" emerged in 1947, when a Soviet scientist named Nikolay Vasilievich Lazarev defined it as a substance that helps the body **adapt to stress**. Now, decades later, adaptogens are enjoying a renaissance, this time backed by some data showing their potential to rebalance stress hormones like cortisol and ease psychological strain.

## What Are Adaptogens, Really?

Adaptogens are bioactive compounds found in certain herbs and fungi that help regulate the body's stress response. They can include the roots, stems, leaves, seeds, or flowers of a plant as well as certain **mushrooms**, and they work by interacting with the hypothalamic-pituitary-adrenal (HPA) axis, **your body's central stress command center**, to help balance cortisol levels and buffer you from burnout.

"When we're chronically stressed, this system can get stuck in overdrive," explains Dr. Sunshine Weeks, a naturopathic doctor and assistant professor of botanical medicine at Bastyr University. "That's where adaptogens come in. They help bring things back into balance."

High cortisol has been linked to everything from **blood sugar dysregulation** and weight gain to mental fatigue and immune suppression. Adaptogens don't just mask the symptoms, they aim to **rebalance the system** at its root.

#### What the Research Says About Adaptogens

Adaptogenic herbs and mushrooms have long been used in Traditional Chinese Medicine (TCM) and Ayurvedic medicine, and a growing body of modern research suggests adaptogens offer promise for stress reduction and possibly more.

- They act as antioxidants: A 2022 review of the literature found adaptogens can act as antioxidants. Panax ginseng, Rhodiola, Schisandra, Eleutherococcus, and Withania contain phytochemicals (like flavonoids, terpenoids, and phenylpropanoid glycosides) that trigger antioxidant enzymes and neutralize oxidative damage across cells and tissues.
- They modulate the stress response: One small study found that ashwagandha reduced mild to moderate chronic stress when taken over an 8-week period. And a review found that the herb significantly reduced serum cortisol levels in stressed but otherwise healthy adults.
- Enhance brain function and recovery: Other research has identified neuroprotective properties in herbs like Ashwagandha, Rhodiola, Schisandra, and Siberian ginseng, particularly in their potential to reduce neuroinflammation linked to anxiety, depression, dementia, and stroke. But, the researchers note the complexity of isolating the compounds responsible for these effects, and suspect synergistic actions of multiple phytochemicals in the plants.
- They improve endurance and reduce fatigue: The same 2022 review concluded that these plant compounds consistently enhanced physical endurance and reduced fatigue. Key adaptogens like *Rhodiola rosea* and *Eleutherococcus senticosus* were associated with longer time-to-exhaustion in endurance tests.

While the overall research on adaptogens is promising, large-scale, multicenter, randomized controlled trials in humans is still lacking.

#### How Do Adaptogens Work in the Body?

Unlike taking an aspirin for quick headache relief, adaptogens work over time to help unwind a dysregulated stress response in the body. Dr. Weeks usually recommends a 3- to 6-month course for meaningful results, especially for people experiencing fatigue, burnout, or hormonal fluctuations like those during menopause. Taken over time, adaptogens help rebalance the stress response and provide **antioxidants** and other phytochemicals that nourish and protect the body.

Some adaptogens can play dual roles. For example, Ashwagandha is often used for relief of stress and anxiety, but may also enhance oxygen uptake and muscle strength, among other potential benefits. Also, an adaptogen may have different effects depending on what an individual's body requires. "Adaptogens are typically *amphoteric*, meaning that they can stimulate someone if needed or they can relax someone if needed," says Dr. Weeks.

In other words, you may take an adaptogen to help increase your energy level, but if your low energy is caused by an overstimulated nervous system, the adaptogen will work to help calm that down first.

# Your Adaptogen Cheat Sheet: What to Try and Why

How do you know what adaptogen would work best for you? Here are the most common adaptogens and their primary uses:

#### 1) CALMING ADAPTOGENS

Used to help regulate the stress response and promote relaxation.

- Ashwagandha: The roots of this shrub are traditionally used in Ayurvedic medicine. Some small studies have shown it can **reduce stress** and help with sleep.
- **Schisandra:** The berry of the Schisandra plant is used in TCM to provide overall support to the body, helping to restore balance wherever needed. It's also used as a liver tonic, and may relieve some

menopause symptoms.

- Holy Basil (Tulsi): Considered a sacred plant used in Ayurveda, and known for its calming and anti-inflammatory effects. Often used to regulate mood and stress.
- **Reishi:** A medicinal mushroom used for <u>over 2,000</u> years in Asian countries, which modern studies show may improve sleep and support immunity.

#### 2) ENERGIZING ADAPTOGENS

Used to support stamina, physical performance, and cognitive focus.

- **Ginseng (Panax and Siberian):** Ginseng is considered energizing, improving stamina and **cognitive function**. Siberian ginseng is milder, often used for **endurance**.
- Rhodiola: The roots of this <u>high-altitude plant</u> have been used for centuries in the traditional medicine of Asia, Scandinavia, and Eastern Europe for enhancing physical and mental performance, alleviating fatigue, psychological stress, depression, impotence, and preventing high-altitude sickness. Some <u>early</u> <u>research</u> shows it can improve exercise endurance, and may help relieve symptoms of <u>chronic fatigue</u> and <u>depression</u>.
- Maca root: A Peruvian root that supports hormonal balance and energy, sexual health in men, and is often used to ease symptoms of menopause.
- Cordyceps: A <u>fungus that grows on the larvae of insects</u> traditionally used in TCM to enhance energy and endurance. Some studies have found they may support <u>cellular repair</u> after intense exercise and may help <u>stabilize heart rates</u> of people with arrhythmia.

#### 3) IMMUNE-SUPPORTING ADAPTOGENS

May enhance immune resilience and regulate inflammation.

- **Astragalus:** Used in TCM for treating cardiovascular disease, studies have **highlighted** its antioxidant properties and possible impacts on immunity.
- **Turkey Tail:** A mushroom rich in **antioxidants**, often studied for its use **alongside** cancer therapies.
- **Reishi:** This mushroom has been shown to support immunity through interactions with **T-cells**, the

white blood cells that help your body fight infection, and are **studied** for prevention and treatment of some cancers.

■ Chaga: Traditionally used in Russian and northern Europe to boost immunity, this antioxidant-rich mushroom found on birch trees is often blended with other mushrooms in tea or capsule form. Human studies on chaga are limited, but test tube and animal studies have found that chaga reduced inflammation and slowed cancer growth.

#### 4) NEUROPROTECTIVE ADAPTOGENS

May help preserve cognitive function and protect brain health.

- Lion's Mane: Some studies show that this mushroom may support mood and cognition. One small study found that patients diagnosed with early Alzheimer's disease given 1g of Lion's Mane for close to a year showed improved cognitive performance.
- **Schisandra:** Some research has found that a compound from the plant <u>may influence</u> Alzheimer's progression.
- **Ashwagandha:** A **2024 study** published in Nutrients found improvements in short-term memory, attention, and executive function among healthy young men and women after 30 days of taking Ashwagandha root and leaf extract.
- **Rhodiola**: The root has antidepressant properties when administered in dosages of either 0.3 or 0.6 g/day over a 12-week period, according to **one study**.

#### 5) METABOLIC-SUPPORTING ADAPTOGENS

These aides may support metabolic function.

- **Maca root:** The roots have been shown to help with **lipid metabolism** and glucose sensitivity.
- **Cordyceps:** Animal studies have shown that it may help <u>increase production</u> of ATP, and small human study found it helped **prevent** muscle injury and faster cellular repair after exercise.
- Chaga: Animal studies have found compounds in chaga may lower blood sugar, and others may inhibit the growth of cancer cells. They may also increase lipid metabolism.

Adaptogens are increasingly added to foods, snacks, and beverages. Will they have any effect? Not likely, says Dr. Weeks. Because these plant medicines typically work on the body over weeks and months, drinking a fortified mocktail, eating ashwagandha-dusted popcorn, or chowing down a maca-enhanced protein bar isn't going to change the way your body handles stress.

That said, there's nothing *wrong* with consuming adaptogens this way, she adds. There may even be other potential benefits. "We need to have more plants in food," Dr. Weeks says. "The more flavonoids, the more polyphenols, just collectively, is a good idea. Whether you're getting the benefits of adaptogens is questionable."

### **Are Adaptogens Safe?**

Yes, and it depends.

Adaptogens can interact with medications. Ashgawandha, for example, <u>may interfere</u> with blood pressure and diabetes medication. Ginseng <u>can interact</u> with blood thinners. It's important to check with your medical provider if you are on any medication or dealing with a chronic condition before taking adaptogens.

It's also worth noting that adaptogens, like other supplements, are not regulated by the FDA.

Even if you're not on medication, adaptogens may cause side effects in some people, including headache, nausea, **sleeplessness**, and allergic reactions. Their effects may also vary from person to person. "While adaptogens are generally safe, there are some that can be overly stimulating or overly calming," Weeks says.

Understanding what adaptogen will work best for your needs and with your physiology is one of the main reasons Weeks strongly recommends working with a naturopath or expert in herbal medicine before adding adaptogens to your self-care routine.

Adapogens *can* help the body deal with stress. But they're a support, not a cure-all, says Dr. Weeks. They work best when combined with diet and other changes that support health and reduce the amount of stress in your life. "If [someone is] not treating the cause of burnout, they're just extending the time until burnout happens."

If you're curious about using adaptogens to support your health, your best bet is to first consult someone with expertise in herbal medicine, like a naturopathic physician. So, sip the mushroom tea if you like it, but know it's the long game, not the one-hit wonder, that makes adaptogens worth your while.

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