



IT MAY NOT ONLY BE WHAT YOU TAKE BUT WHEN YOU TAKE IT

Stress has become one of the most prevalent and important problems to treat. Since 2020, 49% of Americans say stress has negatively affected them.

Several herbs that have been traditionally used for stress have now been the focus of numerous scientific studies. A recent review focussed on two of them: Rhodiola rosea and ashwagandha. The

The review says that Rhodiola rosea has been used in folk and traditional medicine since ancient times, especially in Nordic countries, Russia, Eastern Europe and Asia. It has been used to increase work

productivity and physical endurance, to treat fatigue

review provided insight into whether what time of day they are best LOOK INSTRUMENTAL Medicinal Plants 2023;34(11):20-39).

LOOK INSIDE

• prebiotics, Aging & your

Next Generation Diabetes Supplements

THE BEST WAY TO TREAT DIABETES IS NOT TO GET IT

Some researchers have complained that "safe, durable, and cost-effective approaches to reduce the progression from prediabetes to type 2 diabetes is a clinically relevant, unmet goal." Others have said that the "reversal of diabetes is a holy grail of medicine." Here's a list of natural superstars that just might help you find the holy grail!

, Vitamin D

A meta-analysis of 28 controlled studies showed that in people at increased risk of diabetes because of prediabetes or being overweight, vitamin D significantly improved insulin resistance as well as HbA1c, the most important marker of long term diabetes and blood sugar control (*J Endocr Soc* 2018;2(7):687-709).

An 8 week, double-blind study of 80 prediabetics found that CoQ10 significantly improves insulin resistance, meaning, according to the researchers, that it could slow progression to diabetes (*Biomed Res Int* 2018 Jul 29;2018:1613247).

Fenugreek

When 140 prediabetics took 5g of fenugreek powder twice a day for 3 years or served as a control group in a single-

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and to promote longevity.

Rhodiola Rosea

esaver: Black Seed for CO

This new meta-analysis of black seed and COVID included 7 controlled studies: 3 used black seed alone and 4 used it in combination. Black seed did not reduce rate of hospitalization, but it did significantly speed up the rate at which the virus cleared. Most importantly, black seed significantly reduced the risk of dying from any cause (Food Sci Nutr. 2024 Mar;12(3):2061-2067).





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blind study, the control group had a significant 4.2 times higher chance of progressing to diabetes than the fenugreek group (*J Diabetes Metab Disord* 2015;14:74).

Aloe Vera

A systematic review and meta-analysis that included 5 high quality studies of aloe and diabetes or prediabetes showed that aloe significantly reduced

fasting glucose levels in prediabetics (*J Clin Pharm Ther* 2016;41:180-188). A second systematic review and meta-analysis of 5 controlled studies of diabetes and prediabetes also found that aloe significantly reduces fasting blood glucose and HbA1c (*Nutrients* 2016;8(7):388).

Green Tea

A meta-analysis of 17 controlled studies of green tea and people who were healthy weight, overweight, diabetic or prediabetic found that green tea significantly reduced glucose and insulin levels. It also showed that green tea lowered HbA1c (Am J Clin Nutr 2013;98(2):340-8).

Lipoic Acid

Controlled research has found that lipoic acid significantly improves fasting insulin and insulin resistance in prediabetics (*Food Funct* 2019;10(9):5732-5738).

Bitter Melon

A superstar diabetes herb, when prediabetics took either a placebo or bitter melon in a single-blind study, the bitter melon led to significantly greater improvement in fasting glucose levels (*J Ethnopharmacol* 2018;216:1-7).

Berberine

A meta-analysis of 46 studies on diabetes and prediabetes concluded that berberine significantly lowers HbA1c, fasting blood glucose and blood glucose after eating (*Oxid Med Cell Longev.* 2021; 2021: 2074610).

Saffron

When 75 predidabetics were given a placebo or the low dose of 15mg of saffron for 8 weeks, saffron was significantly better for fasting blood sugar and HbA1c (Clin Nutr ESPEN



2019;34:130-136).

The Cutting Edge: The Latest Research for Prediabetics

Cinnamon

A recent double-blind study of prediabetics found that 500mg of cinnamon taken 3 times a day safely



and significantly improved blood sugar and glucose tolerance compared to a placebo (*Journal of the Endocrine Society* 2020;4(11):bvaa094).

Now a new study has added to the evidence for cinnamon. This double-blind study is novel in that it used continuous glucose monitoring, which may be a more sensitive measure of glucose than methods usually employed in research. The study found that 4g of cinnamon safely and significantly lowers glucose concentrations, meaning that it can improve glucose control in prediabetics (*Am J Clin Nutr.* March 2024;119(3):649-57).

Curcumin

In perhaps the most amazing study prediabetes ever, prediabetics were given either curcumin or placebo for 9 months in a double-blind study. 16.4% of prediabetics on placebo went on to develop type 2 diabetes. 0% of those on curcumin did: none! The curcumin group had significantly better insulin producing beta-cell function and significantly less insulin resistance. So, curcumin may actually stop the development of diabetes (Diabetes Care 2012;35:2121-7).

A new meta-analysis of people with type 2 diabetes, prediabetes or metabolic syndrome demonstrated that curcumin significantly reduces fasting blood glucose, insulin resistance and HbA1c (*PLoS One*. 2023;18(7):e0288997).

And a just published double-blind, placebo-controlled study of overweight adults who were borderline normal/prediabetic showed that curcumin significantly improves HbA1c. The curcumin group also showed significant improvement in after eating blood glucose and in insulin sensitivity. This study suggests that curcumin can improve insulin resistance and blood glucose

levels, meaning that it could lower your risk of prediabetes and type 2 diabetes (*Front Nutr.* 2024 Jan 29:11:1324196).

Almonds

What happens if you eat 20g of almonds, or about 17-18 almonds, before each meal? Fasting blood glucose normalizes in 33.3% of prediabetics

compared to 13.3% in a control group. Post eating glucose normalizes in 76.7% compared to 23.3% of a control group. HbA1c normalized in 30% compared to 3.3% of the control group. Most strikingly, 23.3% of the almond group completely normalized their glycemic state, which, the researchers point out, is comparable to the frontline drug Acarbose (25%). This study suggests that simply eating almonds 30 minutes before each major meal is as effective as drugs for treating, and even normalizing, prediabetes, with the advantage of being safer (*Clin Nutr ESPEN.* 2023 Apr:54:12-22).

Spotlight: 5 Herbs that Went Head-to-Head with Anxiety Drugs

1. Kava Kava

Not once, not twice, but several times has kaya gone head-to-head with anti-anxiety drugs and won. Kaya, providing 210mg of kayalactones, is as effective as the benzodiazepines bromazepam and oxazepam while



having the advantage of being safer (*Z Allg Med* 1993;69:271-7). A double-blind study found that anxiety improved on all 3 treatments (*MMW Fortschr Med* 2002;144:47). And yet another study comparing 400mg of kava standardized for 30% kava lactones to anxiety medications in an 8 week double-blind study again showed kava to be as effective as the drugs Buspirone and Opopramol (*Phytomed* 2003;10(4):38-49).

2. Passionflower

A herb that doesn't get enough attention, passionflower has gone

head-to-head with the benzodiazepine oxazepam in double-blind research and won because it works just as well, but oxazepam impaired daily functioning



significantly more than passionflower (*J Clin Pharm Ther* 2001;26:363-7).

3. Valerian

Better known for sleep, valerian is also effective for anxiety. When researchers compared valerian to oxazepam for insomnia, they found an unexpected result: it not only equalled the drug for



insomnia, it also equalled it for anxiety and with fewer side effects (Forsch Komplementarmed Klass Naturheilkd 2000;7:79-84).

4. Saffron

When 60 people struggling with both major depressive disorder and anxious



distress took either 30mg of saffron or 40mg of citalopram for 6 weeks, improvement was significant and equal on the Hamilton Depression Scale and the Hamilton Anxiety Scale (*Pharmacopsychiatry*. 2017 Jul;50(4):152-160).

5. Lavender

Lavenderoil capsules are as good as the benzodiazepine lorazepam in people



with Generalized Anxiety Disorder (*GAD*). Unlike benzodiazepines, though, lavender oil is safe, non-sedating and non-addictive (*Phytomed* 2010;17(2):94-9).

NATURAL PATH NEWSFLASH



VISION, COGNITION, COMPUTERS & YOUR KIDS

90% of the brain's growth occurs before the age of 5. Increased screen time has negatively impacted kids' vision and eye fatigue and strain. Lutein and zeaxanthin might benefit both

60 kids between 5 and 12 were given placebo or 10mg of lutein and 2mg of zeaxanthin each day for 6 months.

The supplemented kids had significant improvement in eye fatigue and strain. They also had significant improvement in cognition, including processing speed, attention, concentration, memory and learning.

Adv Ther. 2024;doi.org/10.1007/s12325-024-02785-1.

STRESSED OUT & TIRED? PROBIOTICS TO THE RESCUE

If the gut microbiome is communicating with the brain, as is now known, can improving the gut microbiome improve mental health?

A new study has found that 8 weeks of probiotics "remodeled" the gut microbiome of people with sleep disturbance and mood symptoms and significantly improved their sleep quality, depression and anxiety.

Nutrients. 2023 Dec 8;15(24)

Ageless

Prebiotics & Keeping Your Mind Young

Growing research supports the connection between the gut and the brain. Improving your gut microbiome could improve your cognition as you age. One way of doing that is with prebiotics. Prebiotics feed the friendly flora in your gut, increasing the good bacteria and decreasing the bad.

This innovative study included 36 pairs of twins between the ages of 63 and 83. One twin took a placebo; the other took a prebiotic supplement of inulin and FOS.

The twins who took the prebiotic had significant improvement in cognition. Specifically, they had significant improvement in the Paired Associates Learning Test of memory. This finding is important because this test is an early identifier of Alzheimer's.

Nat Commun 2024;15:1859.



Referring to more than 70 human studies around the world, the review says that most of rhodiola's traditional uses are supported by science. It concludes that rhodiola is effective for stress, physical fatigue, low mood, anxiety, depression and for improving both physical and mental work

capacity. It notes that the Herbal Medicinal Product Committee of the European Medicinal Agency approves the use of rhodiola "relief of symptoms of stress such fatique, exhaustion and sensation weakness"

The review also says that rhodiola can help improve well-being and quality of life in people with chronic

Rhodiola

disease by relieving stress and fatigue and improving cognitive function.

The review found that rhodiola is safe and that it does not cause addiction, habituation or withdrawal symptoms.

Interestingly, it said that, since rhodiola acts as a "regenerative" "tonic for vitalizing" that addresses "stress-associated fatigue and weakness in several physical and psychological contexts," it might best be taken during

the first half of the day to take advantage of its energizing effects.

Ashwagandha

The review says that ashwagandha has been used since ancient times in the traditional medical systems of India and Africa. The use of ashwagandha has been described in India's Ayurvedic medical texts

since 1,000 BCE. It has been used as a tonic and for physical and mental strength, endurance, longevity, memory, insomnia, anxiety and much more.

A large number of studies, the review says, scientifically support the use of ashwagandha as a "remarkable" anti-stress agent that can "counteract" stress related conditions, including anxiety,

> depression. insomnia and fatigue. It says that ashwagandha can also help a number of other conditions, including OCD, cognitive dysfunction, infertility and low libido. It also helps physical performance,

fatique, strength and power. The review summarizes that the strongest evidence is for stress and anxiety, then sexual function fertility, then

physical/athletic performance, then diabetes.

and

The review found that ashwagandha is generally safe



with no severe side effects.

It says that ashwagandha acts as a "regenerative" that is a "tonic-nervine," that addresses stress related anxiety insomnia. Its ability to calm and help sleep suggest it may be best taken at night.

Other Stress Herbs

The review strongly supports the use of rhodiola and ashwagandha for stress. It, interestingly, suggests that rhodiola may be an energizing stress herb best taken in the morning, while ashwagandha may be a calming stress herb best taken at night.

This suggestive pattern may be true for some other stress herbs too.

Ginseng is, perhaps, the most revered herb for stress. Since it also energizes, it might, like rhodiola, be thought of in the morning.

Saffron is another great herb for stress and anxiety. It significantly improves stress and is not only better than placebo for anxiety (Nutr Rev 2019 May 28:nuz023), it's as good as the drug citalogram (Pharmacopsychiatry. Jul;50(4):152-160). But saffron is also great for a good night's sleep. A massive systematic review of systematic reviews demonstrates that saffron increases sleep quality (Avicenna J Phytomed. 2022 Sep-Oct;12(5):475-88). So, like ashwagandha, you might think of saffron at bedtime.

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