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MINTY MEMORY HERBS

Boost Focus and Cognition with Aromatic Plants

- by MARIA NOEL GROVES, RH (AHG)

Aroma ignites a response from your nervous system like no other. Depending on a plant's fragrance, it can invigorate, relax, uplift, or ground. Aromatic plants often also have the ability to enhance our focus. A flurry of recent research shows us that many of our best herbs for brain health and cognition are also our most aromatic. The mint family in particular hosts an array of allies for your noggin.

Mint family herbs work to improve cognition through several mechanisms and constituents. They boost levels of acetylcholine (ACh), an important neurotransmitter, by inhibiting the enzyme that breaks it down, acetylcholinesterase (AChE).¹ They also directly stimulate the brain via the olfactory nerve, act as potent antioxidant and anti-inflammatory herbs, increase circulation to the brain, and have direct positive effects on mood.^{2 3 4 5}

Each herb is a little different in its energetics and side benefits. For example, lemon balm (*Melissa officinalis*) and holy basil (*Ocimum sanctum* and spp.) have more profound calming and anti-stress effects alongside a focus boost. Meanwhile peppermint (*Mentha x piperita*) and rosemary (*Rosmarinus officinalis*) are more invigorating. Choose the herb that best suits your constitution and needs or blend several together. These herbs all act quickly, with studies noting results within one hour to one day,⁶ so they make a particularly nice addition to slower-acting cognition herbs like *Bacopa* or gotu kola (*Centella asiatica*), too.

HOW TO USE HERBS

Researchers tested the inhaled essential oil as well as ingested remedies ranging from diluted essential oil to herbal tinctures, capsules, and powder or extracts added to food. Personally, I prefer tincture, tea, water or seltzer infused with fresh herb (which makes a pleasant

and lightly medicinal, aromatic beverage), or to use the herb fresh in food. To get the strongest potency, all the plants mentioned below tincture best as fresh plants 1:2 in 95% alcohol, though you could try dry herb and different alcohol percentages if that's all you have available. The 60 drops of tincture daily will often suffice, but you can play with the dose. Peppermint and rosemary tinctures are quite potent and often helpful at just one to five drops.

ROSEMARY (*Rosmarinus officinalis*)

Rosemary's aroma has helped solidify memories and improve recall throughout the Mediterranean region since antiquity.^{7 8} Rosemary inhibits AChE, increases circulation, and acts as a potent antioxidant and anti-inflammatory herb. Recent human studies support the ability of inhaled or ingested rosemary to boost cognition, alertness, and memory. Small, food-like doses work best. In one study of elders, taking a low dose of 750 mg rosemary powder in tomato juice boosted cognitive performance and speed of memory, while 6,000 mg actually worsened performance.⁹ Inhaling rosemary's aroma also improved alertness and cognition.¹⁰ University students who took 500 mg of rosemary for a month noted better prospective and retrospective memory, anxiety, depression, and sleep scores versus those who took a placebo.¹¹

LEMON BALM (*Melissa officinalis*)

This European and Mediterranean herb has been noted as medicine for the nerves throughout ancient and into modern times.¹² It offers a calming effect. It's well-suited for focus hindered by hyperactivity, agitation, and overstimulation, in children to elders.¹³ In one study, a 1,600mg dose of encapsulated lemon balm herb reduced anxiety and improved mental performance in just one hour!¹⁴ Studies conflict over whether the highest doses work best or their relaxing effects begin to hinder



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cognition – play around to find your sweet spot.¹⁵ Lemon balm also reduces stress, lifts the mood, and reduces anger and anxiety.¹⁶ Long-term use also shows benefit for patients with dementia and children with attention deficit hyperactivity disorder (ADHD).^{17 18 19} Lemon balm loses potency quickly once dried, and even the tincture (my favorite way to use it) loses its oomph after a few years.

PEPPERMINT (*Mentha x piperita*)

Like rosemary, peppermint is an invigorating and potent plant for pep, often used as a synergist in tea and tincture blends. Most of the studies conducted on peppermint have focused on the inhaled essential oil. The whiff of boosted speed and accuracy on clerical tasks including typing, memorization, and alphabetization. It also enhanced alertness and memory, particularly

improving people’s ability to complete difficult tasks, as well as physical athletic performance.^{20 21 22 23} In people with brain injury, peppermint brought the frequency of “false alarms” during forced attention to the levels of healthy individuals.²⁴ Peppermint [herb] is a great flavor enhancer in tea blends and the tincture can be added to tincture blends at 1 to 5% of the total blend to brighten the overall flavor. Note that it upsets reflux for some people.

SPEARMINT (*Mentha spicata*)

A handful of recent studies have focused on cognitive enhancement from a water-extracted spearmint product made a company that funded the research. People with age-associated memory impairment saw better outcomes including 15% better working memory and spatial working memory accuracy compared to placebo



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as well as improved ability to fall asleep, vigor-activity, total mood disturbance, alertness, and behavior following wakefulness compared to placebo.²⁵ Smaller pilot studies also noted better reasoning, attention, concentration, and planning within 30 days as well as acutely improved attention and concentration within one day.^{26 27}

SAGE (*Salvia officinalis*, *S. lavandulifolia*)

Quite a bit of attention has been given to wise sage. A recent review summarized eight human studies on garden and Spanish sage. Preparations varied from essential oil (diluted in a carrier oil and encapsulated or inhaled) to alcohol extract and dried leaf capsules, and duration ranged from a few hours to 4 months. These studies noted benefits for cognitive function, Alzheimer's and dementia symptoms, neuropsychiatric symptoms, attention, anxiety, alertness, calmness, contentedness, memory speed, immediate word recall, and reduced mental fatigue. Keep in mind that sage also acts as a phytoestrogen, is a potent antimicrobial, and is incredibly drying. The presence of potentially toxic thujone in sage is also a concern. Spanish sage contains approximately half the content of thujone of garden sage.²⁸

HOLY BASIL

(*Ocimum sanctum*, syn. *O. tenuiflorum*)

Last but certainly not least, holy basil is a beloved herb in Ayurveda that has become popular in the United States as a calming adaptogen with nervine properties. It also balances and reduces cortisol, blood sugar, and other cardiometabolic factors, among other uses.²⁹ Though its cognitive effects are less rigorously researched, its effects include AChE inhibition, nootropic and neuroprotective activity and potential benefit in Alzheimer's and dementia, and improvement in cognition and memory tests.^{30 31 32 33} It also benefits sleep, fatigue, anxiety, biological age score, stress, and depression – all of which indirectly benefit focus and cognition in people of all ages.³⁴ Holy basil is incredibly aromatic and a lovely, delicious addition to mint, lemon

balm, or rosemary preparations in particular.

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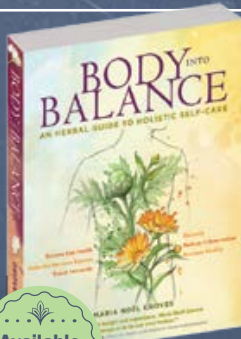
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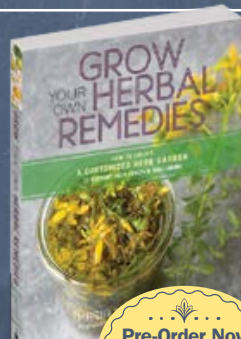
Maria Noël Groves, RH (AHG), is a registered clinical herbalist, educator, and author of the bestselling *Body into Balance* and forthcoming *Grow Your Own Herbal Remedies*. She runs Wintergreen Botanicals, nestled in the pine forests of New Hampshire, offering on-site and distance herb courses and consultations. She is a regular contributor to *Herb Quarterly* and other holistic publications and a guest instructor for the Herbal Academy, Maryland University of Integrative Health, and Massachusetts College of Pharmacy and Health Sciences. Learn more at WintergreenBotanicals.com.

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