

## Passionflower for Dogs as a Natural and Safe Calming Aid

Passion flower is a perennial climbing vine with herbaceous shoots and a strong wood stem that can grow up to 30 feet, and is known for its fragrance and vibrant flowers. The ancient Aztecs reportedly used passion flower as a calming sedative and pain reliever. It is used today as a natural calming agent and sleep aid, as it helps to relax the body, mind and tummy.

The same qualities that calm, relax, and help induce sleep in humans have been shown effective in dogs – helping passion flower become one of the most widely used ingredients in dog remedies available today.

Promote good health with reduced stress

We all know that stress can lead to health issues, either directly or indirectly – through lack of sleep, reduced digestion effectiveness, irritability, rushed and impulsive actions.

By reducing your dog's day-to-day stress, you can give them a better quality of life with improved diet, sleeping patterns and overall mood – allowing them to shift their focus on positive interactions with their family and doggy friends.

**The Science: Passion Flower, *Passiflora incarnata* L., occasionally *P. lutea* L. Family: *Passifloraceae***

Gamma-Aminobutyric acid (GABA) is a primary inhibitory neurotransmitter in the central nervous system, as it reduces the amount of nerve cell activity – which has a calming and relaxing effect.

Passion Flower also contains harmala alkaloid, which acts as a monoamine oxidase inhibitor to stop the breakdown of monoamine neurotransmitters.

Essentially, Passion Flower has properties that prevent vital neurotransmitters (dopamine, norepinephrine, and serotonin) from breaking down, which increases their levels in the body and results in improved mood and temperament.

Perfect for calming separation anxiety

Dogs are very susceptible to separation anxiety (especially puppies!), and it can feel like a lifetime when their owner is away for any period of time.

Too often, this anxiety escalates and results in destructive behavior and bad habits – which can lead to a negative cascade of events where the owner scolds the puppy for this behavior and isolates them further, creating more separation anxiety.

Help your dog avoid stress and anxiety by safely administering Passion Flower (a natural calming agent) with organic Passion Flower tea – brewed normally and diluted in cold water. This is the least jarring method to deliver calming passion flower to your dog's tummy, where most other methods can induce stress in the activity of delivery itself. (Think about the last time you gave your dog a pill!) In contrast, placing a cool bowl of diluted Passion Flower tea down in front of your dog to drink is about as natural and non-invasive as it can get.

**Passion Flower in place of Valerian Root**

While Valerian Root is widely accepted as a useful herb for promoting sleep, treating aggression and reducing anxiety – Valerian Root can actually create the reverse of the desired effects. As a depressant, Valerian Root can have a slowing effect that can leave your dog irritable, groggy, and even aggressive.

In contrast, Passion Flower is more of a mood elevator that calms the mind, body and tummy – not a depressant like Valerian Root.

Bond with your dog

Passion flower is safe for both humans and dogs – a great way to bond with your pet is to share your tea.

Brew some passionflower tea, pour a hot mug for yourself and pour some into your dog's cold water bowl to dilute and cool it.

**Cautions:**

While the medicinal benefits of Passion Flower may help your dog, those same benefits may also mask underlying problems that should not be ignored. If you have concern that your dog has health issues, consult a veterinary physician.

Do not administer to pregnant or lactating dogs, as Passion Flower is a uterine stimulant and may cause constrictions.

**Scientific References:**

Akhondzadeh S, Naghavi HR, Vazirian M, Shayeganpour A, Rashidi H, Khani M. Passionflower in the treatment of generalized anxiety: a pilot double-blind randomized controlled trial with oxazepam. *J Clin Pharm Ther.* 2001;26(5):369-373.

Akhondzadeh S. Passionflower in the treatment of opiates withdrawal: a double-blind randomized controlled trial. *J Clin Pharm Ther.* 2001;26(5):369-373.

Barbosa PR, Valvassori SS, Bordignon CL Jr, Kappel VD, Martins MR, Gavioli EC, et al. The aqueous extracts of *Passiflora alata* and *Passiflora edulis* reduce anxiety-related behaviors without affecting memory process in rats. *J Med Food.* 2008 Jun;11(2):282-8.

Blumenthal M, Goldberg A, Brinckmann J. *Herbal Medicine: Expanded Commission E Monographs.* Newton, MA: Integrative Medicine Communications; 2000:293-296.

Dhawan K, Kumar S, Sharma A. Anxiolytic activity of aerial and underground parts of *Passifloraincarnata*. *Fitoterapia.* 2001;72:922-6.

Dhawan K, Kumar S, Sharma A. Anti-anxiety studies on extracts of *Passiflora incarnata* Linneaus. *J Ethnopharmacol.* 2001;78:165-70.

Elsas SM, Rossi DJ, Raber J, White G, Seeley CA, Gregory WL, Mohr C, Pfankuch T, Soumyanath A. *Passiflora incarnata* L. (Passionflower) extracts elicit GABA currents in hippocampal neurons in vitro, and show anxiogenic and anticonvulsant effects in vivo, varying with extraction method. *Phytomedicine.* 2010;17(12):940-9.

Ernst E, ed. *Passionflower. The Desktop Guide to Complementary and Alternative Medicine.* Edinburgh: Mosby; 2001:140-141.

Grundmann O, Wang J, McGregor GP, Butterweck V. Anxiolytic Activity of a Phytochemically Characterized *Passiflora incarnata* Extract is Mediated via the GABAergic System. *Planta Med.* 2008 Dec;74(15):1769-73.

Lakhan SE, Vieira KF. Nutritional and herbal supplements for anxiety and anxiety-related disorders: systematic review. *Nutr J.* 2010;9:42.

Larzelere MM, Wiseman P. Anxiety, depression, and insomnia. *Prim Care.* 2002 Jun;29(2):339-60, vii. Review.

Miyasaka L, Atallah A, Soares B. *Passiflora* for anxiety disorder. *Cochrane Database Syst Rev.* 2007 Jan 24;(1):CD004518.

Movafegh A, Alizadeh R, Hajimohamadi F, Esfehani F, Nejatfar M. Preoperative oral *Passiflora incarnata* reduces anxiety in ambulatory surgery patients: a double-blind, placebo-controlled study. *Anesth Analg.* 2008 Jun;106(6):1728-32.

Rotblatt M, Ziment I. *Evidence-Based Herbal Medicine.* Philadelphia, PA: Hanley & Belfus, Inc; 2002:294-297.

Sarris J. Herbal medicines in the treatment of psychiatric disorders: a systematic review. *Phytother Res.* 2007 Aug;21(8):703-16. Review.

Soulimani R, Younos C, Jarmouni S, Bousta D, Misslin R, Mortier F. Behavioural effects of

Watson RR, Zibadi S, Rafatpanah H, Jabbari F, Ghasemi R, Ghafari J, et al. Oral administration of the purple passion fruit peel extract reduces wheeze and cough and improves shortness of breath in adults with asthma. *Nutr Res*. 2008 Mar;28(3):166-71.

Ngan A, Conduit R. A double-blind, placebo-controlled investigation of the effects of *Passiflora incarnata* (Passionflower) herbal tea on subjective sleep quality. *Phytother Res* 2011;25:1153-9

Miyasaka LS, Atallah AN, Soares BG. *Passiflora* for anxiety disorder. *Cochrane Database Syst Rev* 2007;:CD004518.

Mori A, Hasegawa K, Murasaki M, et al. Clinical evaluation of Passiflamin (passiflora extract) on neurosis – multicenter double blind study in comparison with mexazolam. *Rinsho Hyoka (Clinical Evaluation)* 1993;21:383-440.

Gralla EJ, Stebbins RB, Coleman GL, Delahunt CS. Toxicity studies with ethyl maltol. *Toxicol Appl Pharmacol* 1969;15:604-13.

Aoyagi N, Kimura R, Murata T. Studies on *passiflora incarnata* dry extract. I. Isolation of maltol and pharmacological action of maltol and ethyl maltol. *Chem Pharm Bull* 1974;22:1008-13.

Dhawan K, Kumar S, Sharma A. Anti-anxiety studies on extracts of *Passiflora incarnata* Linneaus. *J Ethnopharmacol* 2001;78:165-70.

Dhawan K, Kumar S, Sharma A. Anxiolytic activity of aerial and underground parts of *Passiflora incarnata*. *Fitoterapia* 2001;72:922-6.

Akhondzadeh S, Naghavi HR, Shayeganpour A, et al. Passionflower in the treatment of generalized anxiety: a pilot double-blind randomized controlled trial with oxazepam. *J Clin Pharm Ther* 2001;26:363-7.

Fisher AA, Purcell P, Le Couteur DG. Toxicity of *Passiflora incarnata* L. *J Toxicol Clin Toxicol* 2000;38:63-6.

Bourin M, Bougerol T, Guitton B, Broutin E. A combination of plant extracts in the treatment of outpatients with adjustment disorder with anxious mood: controlled study vs placebo. *Fundam Clin Pharmacol* 1997;11:127-32.

Electronic Code of Federal Regulations. Title 21. Part 182 — Substances Generally Recognized As Safe. Available at: <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=786bafc6f6343634bf79fcdca7061e1&rgn=div5&view=text&node=21:3.0.1.1.13&idno=21>

Rommelspacher H, May T, Salewski B. (1-methyl-beta-carboline) is a natural inhibitor of monoamine oxidase type A in rats. *Eur J Pharmacol* 1994;252:51-9.

Salgueiro JB, Ardenghi P, Dias M, et al. Anxiolytic natural and synthetic flavonoid ligands of the central benzodiazepine receptor have no effect on memory tasks in rats. *Pharmacol Biochem Behav* 1997;58:887-91.

Akhondzadeh S, Kashani L, Mobaseri M, et al. Passionflower in the treatment of opiates withdrawal: a double-blind randomized controlled trial. *J Clin Pharm Ther* 2001;25:369-73.

Foster S, Tyler VE. *Tyler's Honest Herbal*, 4th ed., Binghamton, NY: Haworth Herbal Press, 1999.

Gruenwald J, Brendler T, Jaenicke C. *PDR for Herbal Medicines*. 1st ed. Montvale, NJ: Medical Economics Company, Inc., 1998.

McGuffin M, Hobbs C, Upton R, Goldberg A, eds. *American Herbal Products Association's Botanical Safety Handbook*. Boca Raton, FL: CRC Press, LLC 1997.

Leung AY, Foster S. Encyclopedia of Common Natural Ingredients Used in Food, Drugs and Cosmetics. 2nd ed. New York, NY: John Wiley & Sons, 1996.

Schulz V, Hansel R, Tyler VE. Rational Phytotherapy: A Physician's Guide to Herbal Medicine. Terry C. Telger, transl. 3rd ed. Berlin, GER: Springer, 1998.

The Review of Natural Products by Facts and Comparisons. St. Louis, MO: Wolters Kluwer Co., 1999.

Newall CA, Anderson LA, Philpson JD. Herbal Medicine: A Guide for Healthcare Professionals. London, UK: The Pharmaceutical Press, 1996.

Tyler VE. Herbs of Choice. Binghamton, NY: Pharmaceutical Products Press, 1994.

Monographs on the medicinal uses of plant drugs. Exeter, UK: European Scientific Co-op Phytother, 1997.

NIH.gov – <http://www.nlm.nih.gov/medlineplus/druginfo/natural/871.html>

Grundmann O, Wang J, McGregor GP, et al. Anxiolytic activity of a phytochemically characterized *Passiflora incarnata* extract is mediated via the GABAergic system. *Planta Medica*. 2008;74(15):1769–1773.

Lakhan SE, Vieira KF. Nutritional and herbal supplements for anxiety and anxiety-related disorders: systematic review. *Nutrition Journal*. 2010;9(42):1–14.

Miyasaka LS, Atallah AN, Soares B. *Passiflora* for anxiety disorder. *Cochrane Database of Systematic Reviews*. 2007(1):CD004518.

Movafegh A, Alizadeh R, Hajimohamadi F, et al. Preoperative oral *Passiflora incarnata* reduces anxiety in ambulatory surgery patients: a double-blind, placebo-controlled study. *Anesthesia & Analgesia*. 2008;106(6):1728–1732.

Ngan A, Conduit R. A double-blind, placebo-controlled investigation of the effects of *Passiflora incarnata*(passionflower) herbal tea on subjective sleep quality. *Phytotherapy Research*. 2011;25(8):1153–1159.

Passion Flower (*Passiflora Incarnata* L.). Natural Standard Database Web Site. Accessed at [www.naturalstandard.com](http://www.naturalstandard.com) on September 10, 2012.

Passionflower. Natural Medicines Comprehensive Database Web site. Accessed at [www.naturaldatabase.com](http://www.naturaldatabase.com) on September 10, 2012.

Passionflower herb. In: Blumenthal M, Goldberg A, Brinckman J, eds. *Herbal Medicine: Expanded Commission E Monographs*. Newton, MA: Lippincott Williams & Wilkins; 2000:293–296.