

# Passion flower (*Passiflora incarnata* L.)

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*While some complementary and alternative techniques have been studied scientifically, high-quality data regarding safety, effectiveness, and mechanism of action are limited or controversial for most therapies. Whenever possible, it is recommended that practitioners be licensed by a recognized professional organization that adheres to clearly published standards. In addition, before starting a new technique or engaging a practitioner, it is recommended that patients speak with their primary healthcare provider(s). Potential benefits, risks (including financial costs), and alternatives should be carefully considered. The below monograph is designed to provide historical background and an overview of clinically-oriented research, and neither advocates for or against the use of a particular therapy.*

## Related Terms

- Apigenin, apricot vine, banana passion fruit (*Passiflora mollissima*), Calmanervin® (combination product), chrysin, Compoz® (combination product), corona de cristo, coumarin, cyanogenic glycosides, EUP, Euphytose® (combination product), fleischfarbige, fleur de la passion, flor de passion, granadilla, grenadille, harmala alkaloids, harmaline, harmalol, harman, harmine, Jamaican honeysuckle (*Passiflora laurifolia*), madre selva, maypops, Naturest, *Passiflora incarnata*, *Passiflora laurifolia*, *Passiflora mollissima*, pasipay, *Passiflora*, passionflower, passion vine, Passionsblume (German), purple passion flower, Sedacalm®, umbeliferone, Valverde® (combination product), vitexin, water lemon, wild passion flower.

## Background

- The dried aerial parts of passion flower (*Passiflora incarnata*) have historically been used as a sedative and hypnotic (for insomnia) and for "nervous" gastrointestinal complaints. However, clinical evidence supporting any therapeutic use in humans is lacking. Early evidence suggests that passion flower may have a benzodiazepine-like calming action.
- Evidence for significant side effects is also unclear, and is complicated by the variety of poorly classified, potentially active constituents in different *Passiflora* species.
- Passion fruit (*Passiflora edulis* Sims), a related species, is used to flavor food.

## Scientific Evidence

### Uses

*These uses have been tested in humans or animals. Safety and effectiveness have not always been proven. Some of these conditions are potentially serious, and should be evaluated by a qualified healthcare provider.*

Grade\*

#### Congestive heart failure

An extract containing passion flower and hawthorn has been studied as a possible treatment for shortness of breath and difficulty exercising in patients with congestive heart failure. Although the results are promising, the effects of passion flower alone are unclear. High quality human research of passion flower alone compared to prescription drugs used for this condition is needed before a strong recommendation can be made.

C



Grading System

#### Sedation (agitation, anxiety, insomnia)

Passion flower has a long history of use for symptoms of restlessness, anxiety, and agitation. Early evidence from animal studies and weak human trials supports these uses. Better research is needed before a firm conclusion can be drawn.

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## Tradition/Theory

*The below uses are based on tradition, scientific theories, or limited research. They often have not been thoroughly tested in humans, and safety and effectiveness have not always been proven. Some of these conditions are potentially serious, and should be evaluated by a qualified healthcare provider. There may be other proposed uses that are not listed below.*

- Alcohol withdrawal, antibacterial, anti-seizure, anti-spasm, aphrodisiac, asthma, attention deficit hyperactivity disorder (ADHD), burns (skin), cancer, chronic pain, cough, drug addiction, Epstein-Barr virus, fungal infections, gastrointestinal discomfort (nervous stomach), *Helicobacter pylori* infection, hemorrhoids, high blood pressure, menopausal symptoms (hot flashes), nerve pain, pain (general), skin inflammation, tension, wrinkle prevention.

## Dosing

*The below doses are based on scientific research, publications, traditional use, or expert opinion. Many herbs and supplements have not been thoroughly tested, and safety and effectiveness may not be proven. Brands may be made differently, with variable ingredients, even within the same brand. The below doses may not apply to all products. You should read product labels, and discuss doses with a qualified healthcare provider before starting therapy.*

### Adults (18 years and older)

- Safety and effectiveness have not been established for any dose. Standard or well-studied doses of passion flower are currently lacking. Different preparations and doses have been used traditionally. Doses of 0.5-2 grams of dried herb have been taken 3-4 times daily by mouth. Doses of 1-4 milliliters of tincture (1:8) have been taken 3-4 times daily by mouth. Tea made from dried herb (four to eight grams) has been taken daily. A dose of 2.5 grams in an infusion has been used 3-4 times daily.

### Children (younger than 18 years)

- There is not enough scientific data to recommend passion flower for use in children at any dose.

## Safety

*The U.S. Food and Drug Administration does not strictly regulate herbs and supplements. There is no guarantee of strength, purity or safety of products, and effects may vary. You should always read product labels. If you have a medical condition, or are taking other drugs, herbs, or supplements, you should speak with a qualified healthcare provider before starting a new therapy. Consult a healthcare provider immediately if you experience side effects.*

### Allergies

- Few reports of allergic reactions, asthma, irritated sinuses, skin rashes, and skin blood vessel inflammation (vasculitis) have been reported in the available literature with the use of passion flower products. It is believed that some reactions may have been caused by impurities in combination products, not by passion flower itself.

### Side Effects and Warnings

- Passion flower is generally considered to be a safe herb with few reported serious side effects. In cases of side effects, the products being used have rarely been tested for contamination, which may have been the cause. Cyanide poisoning has been associated with passiflora fruit, but this has not been proven in human studies.
- Rapid heart rhythm, nausea, and vomiting have been reported. Side effects may also include drowsiness/sedation and mental slowing. Patients should use caution if driving or operating heavy machinery.
- Passion flower may theoretically increase the risk of bleeding and affect blood tests that measure blood clotting (international normalized ratio or "INR").
- There is a case report of liver failure and death of a patient taking a preparation of passion flower with kava. Use cautiously with any kava-containing products, as kava has been associated with liver damage. It has been suggested that the cause of the liver damage is less likely related to the presence of passion flower.

## Pregnancy and Breastfeeding

- There is not enough scientific evidence to recommend the safe use of passion flower in any dose during pregnancy or breastfeeding. During the 1930s, animal studies found uterine stimulant action in components of *Passiflora*.
- Many tinctures contain high levels of alcohol and should be avoided during pregnancy.

## Interactions

*Most herbs and supplements have not been thoroughly tested for interactions with other herbs, supplements, drugs, or foods. The interactions listed below are based on reports in scientific publications, laboratory experiments, or traditional use. You should always read product labels. If you have a medical condition, or are taking other drugs, herbs, or supplements, you should speak with a qualified healthcare provider before starting a new therapy.*

### Interactions with Drugs

- Certain substances (harmala alkaloids) with monoamine oxidase inhibitory (MAOI) action have been found in small amounts in some species of *Passiflora*. Although levels of these substances may be too low to cause noticeable effects, passion flower may theoretically increase the effects of MAOI drugs, such as isocarboxazid (Marplan®), phenelzine (Nardil®), and tranylcypromine (Parnate®). Increased sedation or low blood pressure could also result from taking passion flower with tricyclic antidepressants, such as amitriptyline (Elavil®), and selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine (Prozac®).
- Based on animal research, use of passion flower with alcohol or other sedatives may increase the amount of drowsiness caused by some drugs. Examples include benzodiazepines, such as lorazepam (Ativan®) or diazepam (Valium®); barbiturates, such as phenobarbital; narcotics, such as codeine; some antidepressants; and alcohol. Caution is advised while driving or operating machinery.
- In theory, passion flower may increase the risk of bleeding when taken with drugs that increase the risk of bleeding. Some examples include aspirin, anticoagulants (blood thinners) such as warfarin (Coumadin®) or heparin, anti-platelet drugs such as clopidogrel (Plavix®), and nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Motrin®, Advil®) or naproxen (Naprosyn®, Aleve®).
- Many tinctures contain high levels of alcohol and may cause nausea or vomiting when taken with metronidazole (Flagyl®) or disulfiram (Antabuse®).
- Passion flower may also interact with anti-anxiety drugs, antibiotics, anticonvulsants, antifungals, antihistamines, anti-cancer drugs, antispasmodics, antitussives, caffeine, CNS depressants, drugs broken down by the liver, flumazenil, naloxone, and other neurologic agents.

## Interactions with Herbs and Dietary Supplements

- Certain substances (harmala alkaloids) with monoamine oxidase inhibitory (MAOI) action have been found in small amounts in some species of *Passiflora*. Although levels of these substances may be too low to cause noticeable effects, in theory, use of passion flower with herbs or supplements with MAOI activity may cause additive effects. Kava (*Piper methysticum*) is believed to have weak monoamine oxidase inhibitor effects and may thus interact with passion flower. In addition, tricyclic antidepressants or selective serotonin reuptake inhibitors may lead to increased sedation or low blood pressure when taken with passion flower.
- Based on animal research, use of passion flower may increase the amount of drowsiness caused by some herbs or supplements, such as valerian and kava.
- Passion flower may have additive effects when taken with herbs or supplements that increase the risk of bleeding. Multiple cases of bleeding have been reported with the use of ginkgo (*Ginkgo biloba*), and fewer cases with garlic and saw palmetto. Numerous other agents may theoretically increase the risk of bleeding, although this has not been proven in most cases.
- When taken with caffeine or herbs containing caffeine or caffeine-like compounds, passion flower may increase blood pressure.
- Passion flower contains lycopene and may have additive effects when taken with lycopene supplements.
- Passion flower may also interact with herbs or supplements taken for pain, anxiety, seizures, fungal infections, bacterial infections, or cancer. In addition, interactions with antihistamines, antispasmodics, antitussives, CNS depressants, herbs and supplements broken down by the liver, and other neurologic agents are possible.

## Author Information

- This information is based on a systematic review of scientific literature edited and peer-reviewed by contributors to the Natural Standard Research Collaboration ([www.naturalstandard.com](http://www.naturalstandard.com)).

## References

*Natural Standard developed the above evidence-based information based on a thorough systematic review of the available scientific articles. For comprehensive information about alternative and complementary therapies on the professional level, go to [www.naturalstandard.com](http://www.naturalstandard.com). Selected references are listed below.*

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