

## Herbal medication to cure insomnia

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Received: 8 December 2015

Accepted: 1 January 2016

ePublished: 18 January 2016

Keywords: Insomnia, *Valerian*,  
*Chamomile*, GABA receptor

**Citation:** Khodadadi S. Herbal medication to cure insomnia. J Prev Epidemiol. 2016;1(1):e02.



## Core tip

Herbal medicine has been used to treat insomnia in worldwide countries for centuries. There are many powerful plants in order to treatment of insomnia such as *Valerian*, *Chamomile*.

Sleep as a poorly understood biological process is associated with some disorder like insomnia, difficulty falling and/or staying asleep. The function and molecular processes underlying sleep stay mysterious but are becoming brighter after many years of research (1). For thousands of years, based on experience and folk remedies plants have been used as treatments and continue to draw extensive notice due to their role in handling of mild and chronic diseases. Focus on plant research has promoted in the world recently and a large number of sign has been collected to emphasize the enormous capability of medicinal herbs used in different traditional systems of medicine (2). Insomnia is a mutual sleep disorder, prevalent in women and the elderly. Existing insomnia medications predominantly target the  $\gamma$ -aminobutyric acid (GABA) receptor, melatonin receptor, histamine receptor, orexin, and serotonin receptor (1). *Valeriana officinalis* is one the effective herbal drug in treatment of insomnia. Valerian mechanism of action is similar to benzodiazepines. As it relates to insomnia, benzodiazepines are known to accelerate sleep inception, decline nightly awakenings, and increase total sleep time. Benzodiazepines do this by expanding, the binding of the main inhibitory neurotransmitter, GABA to the GABA-A receptor (3). The other most effective herbal remedy for insomnia is *Chamomile*, commonly used for many human disorders such as insomnia, hay fever, inflammation, muscle spasms, menstrual ailments, ulcers, wounds, gastrointestinal disorders, rheumatic pain, and hemorrhoids (4). Customarily, chamomile preparations such as tea and essential oil aromatherapy have been consumed to treat insomnia and to induce sedation. Chamomile extracts exhibit benzodiazepine-like hypnotic activity. In a study, inhalation of the vapor of chamomile oil decreased a stress-induced

increase in plasma adrenocorticotrophic hormone (ACTH) levels. The other co-administered chemical drugs with the chamomile oil vapor is diazepam that diminished the amount of ACTH, whereas flumazenil, a benzodiazepine antagonist stopped the influence of chamomile oil vapor on ACTH. Existing mixture in extracts of chamomile may attach BDZ and GABA receptors in the brain and might be responsible for some relaxing impact; but, many of these combinations are still unrevealed (4).

Herbal remedies usually contain complicated mix of compounds with unclear mechanisms of action. The *Valeriana* and *Chamomile* are two most effective herbal drugs with similar mechanism of action with most prescribe sleeping drugs such as benzodiazepine.

## Author's contribution

SK solely contributed to this paper.

## Conflicts of interest

The author declared no competing interests.

## Ethical considerations

Ethical issues (including plagiarism, data fabrication, double publication) have been completely observed by author.

## Funding/Support

None.

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