

# ***Valerian***

**An Effective Sleep Inducer and Anxiety Reliever**



## Valerian (*Valeriana officinalis*)

**Valerian:** from the Latin word *valere*, which means to be in good health. The herb was first discovered and used by Greek physicians, who recommended it for a host of medicinal uses: Insomnia, Digestive problems, Anxiety, and Epileps.

Valerian Extract is used as a sedative to promote sleep and as a calmative agent. Valerian grows wild over many parts of Europe and Asia. However, most of the valerian used for medicinal extracts is cultivated.

The genus *Valeriana* is found throughout the world and consists of more than 230 species. Only *Valeriana wallichii* D.C. (temperate zones of the Himalaya), *Valeriana edulis* Nutt.ssp. *procera* F.G. Meyer (Mexico) and especially *Valeriana officinalis* L. with a broad documented clinical efficacy are of importance to phytotherapy.

*Valeriana wallichii*, the major species of the genus *Valeriana*, is native to India, Nepal and China. As an important substitute for the European *V. officinalis*, it has been traditionally used in treatment of sleep problems, obesity, nervous disorders and snake poisoning and skin diseases.

*Valeriana officinalis* L. is a perennial herbaceous plant widely distributed mostly in Europe but also in some parts of South America and Asia. It is nowadays cultivated on a large scale for medicinal use in Europe. The plant thrives on the damp surfaces of ditches and ponds, marshlands and at the edges of forrests in temperate zones up to 2400 m.

## Sunpure Standardized Extract of Valerian

Extract of valerian (as available from Sunpure Extracts) is a standardized hydroalcoholic herbal extract of the root of *Valeriana officinalis* L. (Fam. Valerianaceae) and *Valeriana wallichii* as a Herbal remedy for sleeping disorders and nervous tension. *Valeriana officinalis* root extract is a safe and effective herbal medicinal product for the treatment of nervous tension and especially difficulties in falling asleep or lack of sleep quality.

*Valeriana officinalis* has been approved as safe (GRAS = generally recognized as safe) for food use in the United States.

Valerian extract is composed of many chemical constituents that are suggested to have medicinal properties:

- ◆ Valerenic acid
- ◆ Valeoptriates
- ◆ Amino acids

## Valerian Standardized Extract Grades Offered by SUNPURE

### Valerian Officinalis Extract (Valerenic acid) :

TEST PARAMETERS	SPECIFICATION
Botanical name	<i>Valerian officinalis</i>
Common name	Valerian
Plant part used for extraction	Root
Description	Dark brown hygroscopic fine powder
<b>Assay, (On dried basis)</b>	
Total Valerenic acid content by HPLC	NTL 0.80 - 0.88% w/w

### Valerian wallichii Extract (Valepotriates acid):

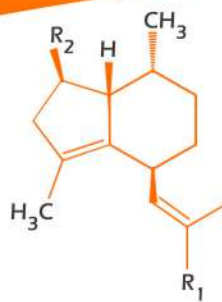
TEST PARAMETERS	SPECIFICATION
Botanical name	<i>Valeriana wallichii</i>
Common name	Valerian
Plant part used for extraction	Root
Description	Dark brown to brown coloured, hygroscopic powder
<b>Assay, (On dried basis)</b>	
Total Valepotriates content (In-house method)	NTL - 1.6% w/w

## Biochemical composition of Valerian

Known compounds detected in valerian that may contribute to its method of action are:

- ◆ Alkaloids: actinidine, chatinine, shyanthine, valerianine, and valerine
- ◆ Isovaleramide
- ◆ Gamma-aminobutyric acid (GABA)
- ◆ Isovaleric acid
- ◆ Iridoids, including valepotriates: isovaltrate and valtrate
- ◆ Sesquiterpenes (contained in the volatile oil): valerenic acid, hydroxyvalerenic acid and acetoxyvalerenic acid
- ◆ Flavanones: hesperidin, 6-methylapigenin, and linarin





R <sub>1</sub>	R <sub>2</sub>	Compound
COO	H	Valerenic Acid
H	O	Hydroxyvalerenic acid
COO	H	Acetoxyvalerenic acid
H	OCOCH <sub>3</sub>	Valerenal
COO	H	
H		
CHO		

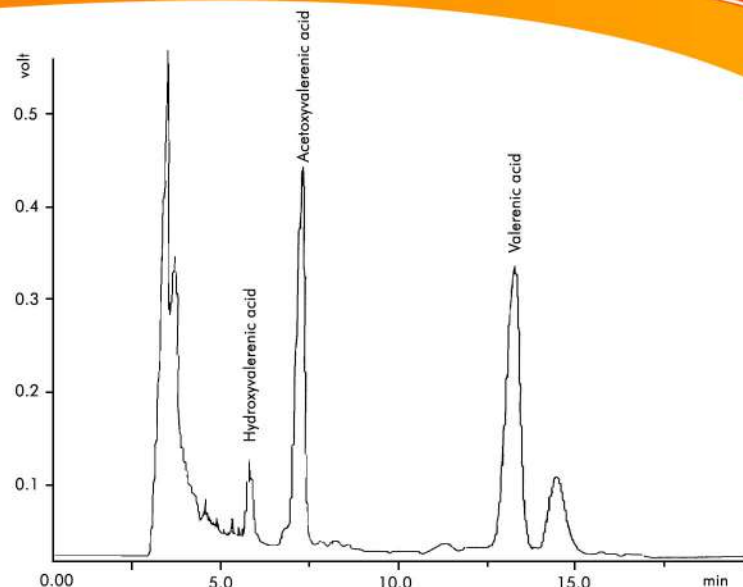


Figure : HPL-chromatogram profile of Valeriana officinalis root extract

## How Valerian Extract Compounds Works

The main bioactive compounds found in Valeriana officinalis are alkaloids, iridoids, flavanones, and sesquiterpenes. Valerenic acid is a sesquiterpene responsible for the peculiar smell of valerian herb and, in combination with its derivatives (mainly hydroxyvalerenic acid), is believed to be primarily responsible for the well-known sedative effects of the valerian root. Valerenic acid is thought to interact directly with receptors in the central nervous system (CNS) that handle the production of  $\gamma$ -aminobutyric acid (GABA), a neurotransmitter that promotes relaxation and the onset of deep sleep. Additionally, the iridoids and alkaloids present in the valerian root seem to inhibit inflammatory processes.

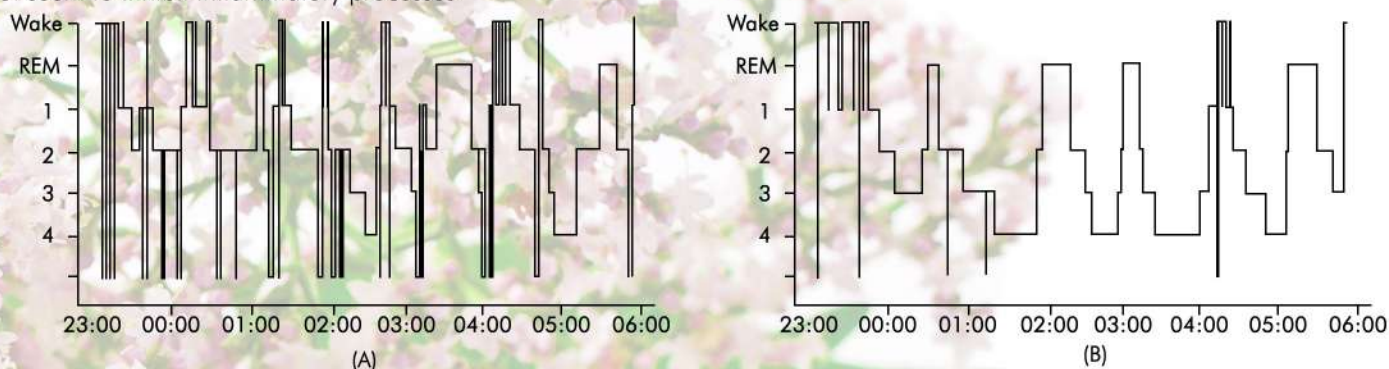


Figure: Restructured hypnogram after therapy with 500 mg valerian p (b) in comparison to hypnogram before therapy (a)

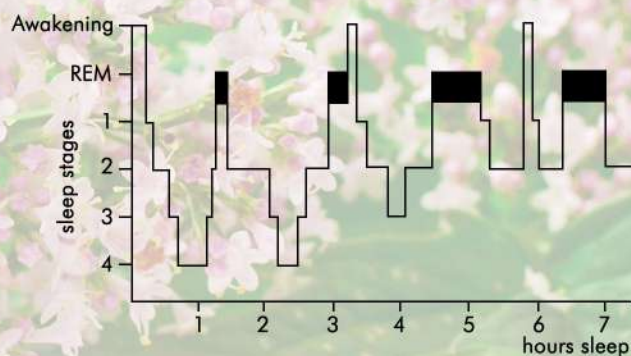


Figure: Normal sleep pattern of healthy young adults

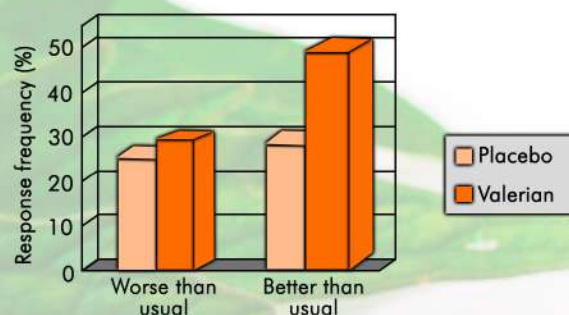


Figure: Percentage of habituallly poor or irregular sleepers reporting a mean rating over 3 nights of better or worse sleep than usual following placebo or valerian treatment

## Health Benefits of SEPL Valerian Extract

Valerian health benefits are mainly anxiolytic and sedative, and have been reaped in medicinal forms for centuries. Modern research has proven the usefulness of valerian for:

- ◆ **Treating insomnia** - Studies have shown that valerian root compounds work on the brain and nervous system, promoting relaxation and inducing sleep.
- ◆ **Lowering anxiety** - Valerian's sedative properties help relieve the symptoms of anxiety. Valerian properties have also proven effective for **treating hot flashes during menopause** and the herb has been suggested as an alternative treatment for women who are reluctant to receive hormone therapy.

Additionally, although further studies are necessary to fully understand its mechanisms of action, valerian root has been suggested to possess **anti-inflammatory properties**.





Relieve Migraine

## Valerian Root



Better Sleep



Relieve Anxiety



Digestive Problem



Regulate Blood Pressure

## References

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**Sunpure Extracts®**  
Pvt Ltd

Corporate Office:  
Sunpure House

L - 99 A, Dilshad Garden, Delhi - 110095, INDIA

Tel: +91-11-22126629, +91-9205515570

Email: [info@sunpure.co.in](mailto:info@sunpure.co.in) | Web: <https://www.sunpure.co.in>

Manufacturing Base:

E - 25, Industrial Area, Sikandrabad (U.P.) - 203205, INDIA

