



## Immunity Boosting Drugs in Ayurveda – A Review

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### Article History:

Received on: 23 Sep 2020  
Revised on: 25 Oct 2020  
Accepted on: 02 Nov 2020

### Keywords:

Immunity,  
Vyadhikshamatwa,  
Rasayana therapy,  
immunity-boosting  
drugs,  
Ashwagandha,  
Amalaki,  
Bramhi,  
Guduchi

### ABSTRACT

The concept of Immunity is mentioned as 'Vyadhikshamatwa' in Ayurveda. In Ayurveda numbers of medicinal herbs are described under immunity-enhancing drugs category. The concept of immunity enhancer is explained under the category of Rasayan chikitsa in Ayurveda. These herbs are used in various diseases, especially by modulating the immune system. These herbs are called as Rasayan Dravyas. Ayurveda medical science comprises the herbs which are Rasayana and also which are non-Rasayana in nature. In Samhitas entirely enriched with enormous data of Rasayana medicinal herbs acting as immune modulators. The data of available Samhitas and researches show that these Rasayana herbs have immense potential as immune modulators. Advanced researches have proven that drugs like Guduchi, Haritaki, Ashwagandha, Brahmi, Jyotishmati act as a good immune enhancer. These herbs are mentioned in Ayurveda as Rasayana drugs. Experimental studies also have proven the role of Rasayana drugs as antioxidant, adaptogenic and having anti-stress activities. These Rasayana drugs as having immunity enhancer protect the health of a healthy person and protects them from any type of diseased condition. Charakacharya had mentioned Rasayanchikitsa adhyay as the first adhyaya of their chikitsasthan considering his aim as 'Swasthasya Swasthya Rakshanam'. This means to protect the health of a healthy person as in priority by using immunity enhancer drugs as Rasayanas. This review article empowers such reviewed data on Rasayan medicinal herbs as a promising future target for immunotherapy.



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ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11iSPL4.4234>

Production and Hosted by

IJRPS | [www.ijrps.com](http://www.ijrps.com)

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### INTRODUCTION

The word immunity means the fighting action of the body in protection from infectious disease. The immune system evolved as a defence system to protect animals from invading microorganisms and malignant disorders. Immunology is a branch of biomedical science that covers the study of all aspects of the immune response in all other organisms. This is the study of the molecular and cellular components that comprise the immune system, which including its function and interaction. Ayurvedic system of medicine not only deals with

treating the diseases but also aims to prevention and fight against the disease. In Ayurveda, the concept of Immunity is explained in terms of Vyadhi-kshamatva. The herbs & drugs which are mentioned in this regards are called Rasayan. In Charka Samhita Acharya has mentioned Rasayan drugs in the first addhyay of chikitsasthan (Prof and Sharma, 2011a). According to him, the aim of Ayurveda is to first protect the health of a healthy person (Prof and Sharma, 2011b). Rasayanas are believed to build a good fighting capacity against stress and infection in the body. These Rasayanas act principally by strengthening the immune system of the body, acting as both brain and body tonic. They help to promote vitality and maintain it (Dandekarpradnya, 2014). Rasayana drugs are beneficial to prevent the disease as well as to cure disease (Rajnikamlakar-gurmule, 2020).

### Aim

Review of Immunity busting drugs mentioned in Ayurveda as Rasayanas.

### Objectives –

1. To take a review of rasayan drugs mentioned in Ayurveda.
2. To emphasize their immunity busting activities based on current researches.

### Observations

Ayurveda is booming successfully with its eight branches. Rasayana chikitsa is one of the branch of it. 'Rasa' means the essence of nutrition, 'Ayana' means body tissue elements and Rasayana therapy means the treatment method that empowers the body tissue elements by means of nutrition that is Rasayana (Vidyanath et al., 2006). Rasayana dravyas are purposefully made for giving strength, vitality, immunity, ojus, will power and determination. It also attains longevity, memory, intelligence, the excellence of lustre, complexion and voice, optimum strength of physique and sense organs (Brahmananda Tripathi and Dr Ganga Sahay Pandey, 2000). Today's stressful lifestyle & consumption of junk food is damaging the dhatus of the body at early ages. This results in promoting the ageing process. To build this dhatus strongly and to maintain their capacity to fight against any diseases that means to bust immunity of the body. This immunity-enhancing process is carried out by Rasayana Dravyas. Acharya Sushrut has also mentioned these Rasayana drugs for the purpose of decreasing the aging process and increasing the longevity of life. He also mentioned the effect of

these Rasayana drugs to increase the strength of the body mentally as well as physically and also to destroy the disease process of the body (Kavi-raj Ambikadatta Shastri Sushruta, 2007). Rasayana therapy is correlated with immune-modulator, anti-ageing action in modern medicine.

### Classification of Rasayana mentioned in the text.

#### Based on the aim

##### Naimittikarasayana

Used for a particular cause, which causes a disease? e.g. Pippli (piper longum) rasayana for Rajyakshma, Mandookparni (Centelaasiatica) rasayana for medha, Triphalarasayana for chakshu. (Acharya et al., 2002a)

##### Ajasrikarasayana

It is used to maintain good health and improve the quality of life through a healthy lifestyle, diet, or exercise in daily routine. e.g. Milk, Ghee, Honey, adopting the principles of Aacharrasayan.

##### Kamyarasayana

It is used to fulfil a desire or to serve a special purpose (Acharya et al., 2002b).

#### Based on modalities

1. Achar Rasayana - Behavioural modalities
2. Ahar Rasayana- Dietary modalities
3. Dravya Rasayana - Aushadh or Drug based modalities (Tripathi and Pandey, 2000b).

#### Based on mode of administration

1. Kutipraveshika: therapy which is given in indoor, i.e. in the room, specially made huts.
2. Vatatapika: Therapy is given in outdoor, i.e. in free air and sun rays (Tripathi and Pandey, 2000c).

#### Rasayana Drugs In Ayurveda which Boost Immunity

Ashwagandha (Withaniasomnifera), Amalaki (Emblica officinalis), Bibhitaka (Terminaliabelirica), Haritaki (Terminaliachebula), Brahmi (Bacopamonnieri), Bala (Sidadcordifolia), Bhringraja (Eclipta alba), Jyothishmati (Celastrspaniculatus), Pippali (Piper longum), Atmagupta (Mucunapru-rita), Shatavari (Asparagus racemosus), Kashmari (Gmelinaarborea), Guduchi (Tinosporacordifolia), Chitraka (Plumbagozeylanica)

Advanced Researches validating claims of Rasayana drugs shows that these drugs are immune busting drugs. Experimental researches done on various Rasayana drugs prove that Rasayanas have immune stimulant, antioxidant, and anti-stress etc. properties (Tripathi and Pandey, 2000a).

**Table 1: Some drugs and their actions**

Drug	Action
1. Ashwagandha (Withaniasomnifera)(13)	Strength promoting Immune modulator Anxiety Insomnia
2. Amalaki (Embliaofficinalis)	Anti-ageing ( <a href="#">Thilakchand et al., 2013</a> ) Best immunomodulator Against carcinogenesis ( <a href="#">Zhao et al., 2015</a> ) Cardio and hepatoprotective Increase gastric activities Antidiabetic, cancer, antioxidant
3. Brahmi (Bacopamonnieri)	Anti-oxidant Anti-inflammatory Anti-convulsant Bronchodilator Peptic ulcer protection
4. Guduchi (Tinosporacordifolia)	Anti-oxidant, inflammatory ( <a href="#">Karkal and Bairy, 2007</a> ), Anti-allergic ( <a href="#">Singh et al., 2003</a> ) Hepatoprotective activity ( <a href="#">Spelman, 2001</a> ) Effects on stress, learning and Memory
5. Jyothishmati (Celastrspaniculatus )	Sharpening the memory, improve concentration Anti-inflammatory
6. Haritaki (Terminaliachebula)	Immunomodulator ( <a href="#">Aher and Wahi, 2011</a> ) Anti-oxidant, diabetic Anti-carcinogenic ( <a href="#">Reddy, 1990</a> ) Anti-viral Cardio and Hepato-protective ( <a href="#">Tasduq et al., 2006</a> )

Some herbs which are useful as immunity-boosting and their actions reflected in (Table 1)

## DISCUSSION

In January, Coronavirus was identified in the focal of infectious prevention and anticipation, China. Detaches from the swab test from the throat and named as Covid 2019." A tale Covid was disengaged from those patients who met the SARS case depiction ([Parwe et al., 2020](#)). Immune modulators action of Rasayana drugs is proven. Rasayana therapy is one of the important treatment protocols of the Ayurveda. So Ayurveda science is basically working for the health & longevity of a person. So it is called as life science. Rasayana drugs are commonly used by many Ayurvedic physicians mainly to bust immunity of the person against diseases. The different herbs are mentioned in relation to different systems of the body. In Rasayana therapy, the drugs are given according to one's digestive capacity. Parts of plants are used as medicine in various forms as single drug or formulations while giving equal importance to the diet and lifestyle. Even though the effects of

Rasayana Therapy on human subjects have been documented by the various researchers, the modes of action of Rasayana therapy have not been scientifically explored much. The modern research has only documented the biological activity of the individual medicinal plants and their active ingredients. Based on these, the Rasayana therapy is interpreted in modern science like Immuno-modulatory action, Anti-ageing action, Adaptogenic action, Longevity or extended life span etc. These drugs can very well be used in the pandemic crises of Covid 19 ([Rathi and Rathi, 2020](#)). It is said that each suggestive and asymptomatic patients with COVID-19 can playwork in infirmity transmission by means of airborne and physical contact ([Nisargandha and DadaraoParwe, 2020](#)). The drugs involved in Rasayans are rich in Vitamin C, Vitamin E, Beta carotene, riboflavin. So these substances have the capacity to do counteracting and manage the damaging effect of oxidation. So they work as anti-oxidants. In Amalaki, main constituents are Vitamin C, carotene, riboflavin. So it has a role in cellular oxidation-reduction. However, the research on the finding of some suitable model systems is still a major challenge in the understand-

ing of the mode of action of Rasayana drugs.

## CONCLUSION

Rasayana Chikitsa is one of the eight branches of Ayurvedic Science, which comprises of preventive, promotive and curative aspects for healthy and happy living with youth ness. The benefits of Rasayana therapy are long life with youth ness, enhanced memory and brilliance, the great strength of body and sense organs and pleasing personality. Various plants and plant products are used in the Rasayana treatment along with prescribed diet and lifestyle. Even though the active components of the plants and their biological activities have been documented individually, the holistic mechanisms of action of Rasayana treatment are still not explored in depth.

## Conflict of Interest

The authors declare that they have no conflict of interest for this study.

## Funding Support

The authors declare that they have no funding support for this study.

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