

GENERAL MODE OF ACTION AND POSSIBLE SIDE EFFECTS OF RASAYANA  
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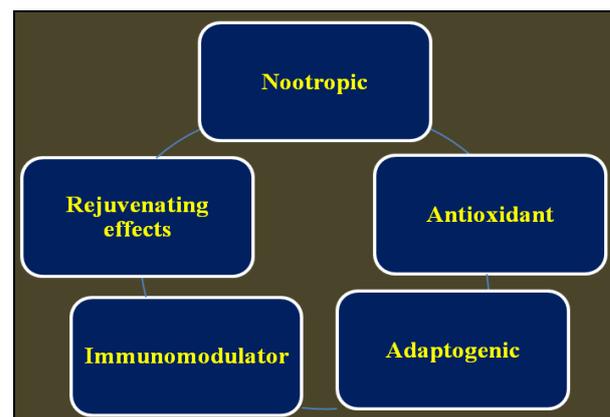
## ABSTRACT

*Rasayan* therapy is one the vital therapy of Ayurveda science that provides several health benefits and helps to restore normal physiological functioning of body. *Rasa* means juice that provides correct *Ayana* (path) for healthy living. *Rasayana Tantra* is one of the major divisions of *Astang* Ayurveda that establish equilibrium of *Doshas*, maintain functioning of *Agni*, potentiates *Dhatus* and perform detoxification of body. *Rasayana* offers immunomodulator, adaptogenic, antioxidant, nootropic and rejuvenating effects, etc. These effects of *Rasayana* occur through specific biochemical events inside the body thus the understanding of mode of action of *Rasayana* is very important aspect. The use of *Rasayana* sometimes may induces unwanted effects and specific *Rasayana* drugs offers particular adverse effects therefore awareness about side effects of *Rasayana* therapy is another important aspect. Considering these all facts present article described mode of action and some possible side effects of *Rasayana* drugs.

KEYWORDS: *Ayurveda, Rasayana, Adaptogenic, Antioxidant, Rejuvenating.*

## INTRODUCTION

*Rasayana* is specialized therapy of Ayurveda that boosts *Dhatus*, *Srotansi*, *Agni* and *Ojus* etc. Ayurveda mentioned that *Rasayana* provides longevity, improves immune system, boost sexual functioning, delay ageing, resist infections and imparts rejuvenating effects, etc. The ancient literatures of Ayurveda described use of *Rasayana* for the management of various health problems such as; anemia, fatigue, impotency, learning impairment, depression, gastric problems and some skin problems, etc.<sup>[1-4]</sup> *Rasayana* not only recommended for diseased person but this therapy also offers benefits in healthy person and such type of *Rasayana* termed as *Kamyas Rasayana* that enhances physical and mental functioning of healthy individual. On the other hand *Rasayana* drugs used for diseased person termed as *Naimittika Rasayana* which offers specific therapeutic benefits required for the management of particular diseases. **Figure 1** depicted general health benefits of *Rasayana* therapy.<sup>[4-7]</sup>

Figure 1: General action of *Rasayana* drugs.Modern perspective on general mode of action of *Rasayana*

There are some Ayurveda texts that described *Vayasthapana*, *Ayushkara*, *Urjaskara* and *Medhakara* effects of *Rasayana* therapy as resultant of drug effect that occurs at level of *Rasa*. It is believed that *Rasayana* drugs such as; *Madhuyashti*, *Shatawari* and *Bala*, etc. mainly improves nutritional values of specific *Poshak Rasa* by virtue of their *Madhura*, *Snigdha*, *Guru* and *Sheeta* properties. These *Rasayana* drugs influences *Rasa* of body and thus boosts qualities of *Dhatus*.

Drugs such as *Guggulu*, *Bhallataka*, *Pippali* and *Rasona*, etc. acts at level of *Agni* thus improve process of digestion and metabolism thereby produces good quality *Saptdhatu*. *Rasayana* drugs like *Chitraka*, *Vidang* and *Haritaki* mainly improves *Jaathragni* while drugs like; *Amrita*, *Amalaki* and *Pippali* acts mainly at the level of *Dhatu* and *Agni*. These types of *Rasayana* possessing *Ushana*, *Ruksha*, *Laghu*, *Katu*, *Kashaya* and *Tikta* properties thus improves metabolic activities and produces *Dhatu*s of good quality.

*Rasayana* drugs possesses *Katu* & *Tikta Rasa*, *Laghu Guna*, *Ushana Veerya* and *Katu Vipaka* may produces *Srotoshodhana* effects thus help in detoxification and improves circulatory process of body. Similarly *Bala* and *Vyadhiksamatava* effects of *Rasayana* achieved at the level of *Ojas*.

#### ➤ **Sanshodhana Rasayana**

The *Rasayana* that eliminate vitiated *Doshas* called *Sanshodhana Rasayana* (*Pippali* and *Yashtimadhu* etc.), these drugs expel *Doshas* either by *Virechana*, *Vamana* and *Swedna* etc.

#### ➤ **Sanshamana Rasayana**

While some *Rasayana* balances *Dosha* thus induces *Shaman* effect and these drugs called *Sanshamana Rasayana*.

#### ➤ **Acharya Rasayana**

*Acharya Rasayana* meant for good conduct of ethical regimen, these drugs mainly related with *Mana*, *Dhi* and *Dhriti*. This therapy suggests one to avoid speaking lie, anger, and alcohol, smoking excessive sex indulgence, violence and crime. The conduction of ethical regimen help to control anger anxiety and ego, the good ethical regimen offers soothing effect on mind, vitalizes sense organ and rejuvenate physiological activities thus provides many health benefits.

#### ➤ **Medhya Rasayana**

*Medhya Rasayana* helps to establishes understanding about the existing objects and improves learning ability. *Medhya* drug acts by virtue of their *Achintya Veerya* at level of *Agni*, *Rasa*. These drugs stimulate function of *Agni* and improves circulation of *Rasa* thus ultimately boosts function of *Medha*. The *Satva Guna*, *Tikta-Madhura Rasa*, *Laghu* property, *Deepana-Paachana* and *Srotoshodhaka* action of such types of drugs improves functioning of sense organs, mind and *Medha*. *Ushana Veerya* stimulates *Saadhak Pitta*, improve *Grahan Shakti* and *Samriti* while *Madhura Vipaka* nourishes *Medha* thus ultimately improves mental functioning and intellect.

#### **Antioxidant Action of Rasayana**

*Rasayana* drug offers antioxidants effects thus reduces oxidative damage caused by radicals. These drugs contain vitamin C, Vitamin E, beta carotene and polyphenols thus possesses capability to counteract

damaging effect of oxidative radicals. *Rasayana* drugs such as; *Amla* and *Ashwagandha* contains vitamin C and riboflavin thus reduces cellular oxidation, improves collagen fibrin synthesis and enhances iron absorption therefore offers health benefits to reduces effects of free radical damage. Some *Rasayana* like *Ashwagandha* acts as antioxidants since it enhances level of compounds like; dismutase, catalase and glutathione peroxidase, etc. which acts as natural antioxidants.

#### **Immunomodulatory Action of Rasayana**

*Rasayana* drugs acts as immunomodulator and influences immune system of body thus help to prevent infections. The immunomodulator mode of action of *Rasayana* drugs achieve by increasing WBC count, it also enhances functioning of T cells & B cells that helps to fight against common infections.

#### **Antiaging Action of Rasayana**

*Rasayana* drugs inhibit process of early aging by increasing muscle tone, enhancing vision, memory & locomotion function. These drugs boost anabolic activities, suppress free radicals induce oxidative damage and enhance physical strength thus help to combat against symptoms of early ageing.<sup>[4-8]</sup>

#### **POSSIBLE SIDE EFFECTS AND RISKS ASSOCIATED WITH RASAYANA DRUGS**

##### **1. Possible side effects of *Shatavari***

- Dizziness
- Rash
- Itchy skin
- Fast heart rate
- Breathing difficulty

##### **2. Possible side effects of *Gandhak Rasayan*:**

- Bloating
- Loose stool
- Allergy

##### **3. Possible side effects of *Guggulu Rasayana***

- Burning sensation
- Acid reflux
- Heartburn

##### **4. Possible side effects of *Shilajeet Rasayan***

- Vomiting
- Palpitation
- Diarrhea
- Sweating

##### **5. Possible side effects of *Bhallataka Rasayana***

- Allergic reaction
- Rashes
- Nausea
- Gastric trouble

## CONCLUSION

*Rasayana* exerts their health benefits by influencing *Dosha*, *Dhatu*, *Agni* and *Srotasa*. It is believed that different *Rasayana* act at different levels and as a complex phenomenon that operated through fundamental factors helps to acquire desired biological effects. The *Rasayana* drugs mainly offer immunomodulator, adaptogenic, antioxidant, rejuvenating and nootropic effects. The immunomodulator effects of *Rasayana* can be attributed to their ability to modify immune system by producing series of biochemical events inside the body. The *Rasayana* drugs such as; *Tulsi*, *Ashwagandha*, *Haridra*, *Guduchi*, *Amalaki* and *Shatavari* offers adaptogenic effects and this behavior can be attributed to the fact that these drugs balances internal harmony and imparts strength thus one can adopt environmental changes easily. The antioxidant effect of *Rasayana* drugs prevent damage caused by free radicals. The presence of polyphenolic components in *Rasayana* herbs help to curb oxidative radicals. Nootropic effect of *Rasayana* promotes brain functioning. These drugs (*Shankpushpi*, *Mandookparni* and *Yashtimadhu*, etc.) enhances regenerative process, boost memory, imparts calming effects and relaxes mental anxiety thus enhances brain activities.

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