

**RASAYANA: BREAKING THE GROUNDS OF IMMUNOMODULATION IN SPORTS**\*<sup>1</sup>Vd. Komal R. Gaikwad and <sup>2</sup>Vd. Nitesh R. Joshi<sup>1</sup>PG Sch Swasthvritta, <sup>2</sup>Asso. Prof. Department of Swasthvritta and Yoga MAMs Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune-28.

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**ABSTRACT**

**Introduction:** Sports being played for pleasure and relaxation, competition, maintenance and improvement of fitness and health. Sports participation not only needs physical strength but also mental stability to focus on the game, to deal with the pressure and to absorb the failure. It also carries a risk of injuries which may in some cases lead to permanent disability aiding to economic burden and also an increased dropout rate which may be career ending. Here, Ayurveda's *Rasayana* (Rejuvenation therapy) comes into limelight. Practices which help to nourish and enhance the *Rasa Raktadi Sapta Dhatus* (all tissues) is considered as *Rasayana*. *Rasayana* promotes longevity (*Dirgha ayu*), bestows memory (*Smriti*), intelligence (*Medha*), freedom from disease by providing strength (*Arogya*), youth (*Taruna*), lustre of skin (*Prabha*), complexion (*Varna*), vocal enhancement (*Swara*), optimum potentiality of body and sense organs (*Deha Indriya Bala Param*). *Rasayana* drugs have antioxidant activity, anti-microbial, good nutritional value, enhance physical immunity and psychological resistance. Hence *Rasayana* can be used in sports to obtain strength, immunity, vitality, will power and determination. It will also prevent wear and tear of tissues thereby preventing sports injuries. **Material and Methods:** References from various classical literature were collected systematically with respect to *Rasayana* and its mode of action. Evidence based research studies were also reviewed for sports performance and probable injuries. **Results:** *Rasayana* in sportsmen can be helpful in replenishment of all *Dhatus* to optimum health thereby enhancing sports performance as well as preventing sports injury. **Conclusion:** The physical and mental stamina of sportsmen indicate perfect health with the help of balance condition of *Tridosha* and *Saptadhatu* which can be achieved by *Rasayana* right from the birth or training programme. It increases immunity (*Ojas*), strength (*Bala*), digestive power (*Agni*), useful in maintaining *Satva* quality of mind.

**KEYWORDS:** Here, Ayurveda's *Rasayana* (Rejuvenation therapy) comes into limelight.

**Need for the study**

1. Sports participation not only needs physical strength but also mental stability to focus on the game, to deal with the pressure and to absorb the failure.
2. It also carries a risk of injuries which may in some cases lead to permanent disability, aiding to economic burden and also increased dropout rate which may be career ending.
3. Practices which help to nourish and enhance the *Sapta Dhatus* is considered as *Rasayana*.
4. Nutrition, strength and immunomodulation as one of the focal areas of *Rasayana*, the discussion on controlling the sports injuries and enhancing sports performance opens up new areas for research in *Ayurveda*.

**INTRODUCTION**

*Rasayana* (Rejuvenation therapy) is one of the eight clinical specialities of classical *Ayurveda*. The *Rasayana* therapy enhance the qualities of *rasa*, enriches it with

nutrients. Taking *Rasayana* is helpful to increase the immunity of the person to keep him away from disease and also reverses the disease process and prevents the re-occurrence. Sports being played for pleasure and relaxation, competition, maintenance and improvement of fitness and health.<sup>[1]</sup> Sports participation not only needs physical strength but also mental stability to focus on the game, to deal with the pressure and to absorb the failure. It also carries a risk of injuries which may in some cases lead to permanent disability aiding to economic burden and also an increased dropout rate which may be career ending. Here, Ayurveda's *Rasayana* comes into limelight.

**MATERIAL AND METHODS**

1. References from various classical literature were collected systematically with respect to *Rasayana* and its mode of action.
2. Evidence based research studies were also reviewed for sports performance and probable injuries.

3. Some useful information was also collected from the medium of mass communication.

## RESULTS

### Common Injuries in Sports<sup>[2]</sup>

Sr. No.	Sport	Strength or most used body part	Probable Injury
1.	Swimming	Lungs (lung capacity), Arms (arm strength)	Fatigue, Fainting and Short Breath
2.	Chess	Brain (concentration)	Mental trauma by defeat
3.	Wrestling/ Boxing	Muscle power	Muscle pull or tear, Sprain and Ligament injury
4.	Shot-put/ Javelin/ Discus/ Hammer Throw	Shoulder Joint	Joint dislocation or Subluxation
5.	Tennis/ Golf/ Badminton	Arms/ Elbow Joint	Tennis elbow
6.	Cricket/ Hockey	Physical strength	Wounds or Abrasion and Fatigue
7.	Archery	Focus or Concentration	Mental trauma by defeat
8.	Basket ball	Physical strength, skill and focus	Muscle pull or Sprains
9.	Athletics	Muscle power especially Hamstrings, Lung capacity	Hamstring strain and Fatigue
10.	Baseball	Musculature viz. core, glutes and hamstrings	Muscle pull, cuts/ contusion, ligament injury
11.	Cycling	Upper leg- quadriceps and hamstrings Calf- Soleus and gastronemius	Achilles tendonitis, fatigue, fainting, trauma

### Analysis

#### Rasayana in Sports

- Nitya Rasayana<sup>[3]</sup>:** Daily intake of milk with ghee is the best among Rasayana.
- Achar Rasayan (behavioural Rasayana):** One who follows all the behavioural ethics gets all the benefits of Rasayana even without consuming any Rasayana Dravya.<sup>[4]</sup> They also help prevent the psychosomatic ailments hence helpful for the mental strength in the sport players.<sup>[5]</sup>
- Sadvritta<sup>[6]</sup> (good conduct or behaviour):** Right/ good/ moral conducts must be followed to lead a healthy life.
- Suvarnaprashana<sup>[7]</sup>:** Suvarnaprashana right from childhood helps develop immunity and also enhances physical and mental strength.

#### 5. Body part wise some Rasayana Dravya<sup>[8]</sup>

i. *Mastishka: Brahmi, Shankhpushpi*

ii. *Netra: Triphala, Yashtimadhu*

iii. *Karna: Sudarshan, Bilva*

iv. *Nasa: Sarshap, Shigru*

v. *Gala (Kantha): Yashtimadhu, Kantakari*

vi. *Kesha: Bringaraj, Narikel*

vii. *Twacha: Neem, Haridra, Kumari*

viii. *Phupphus: Vasa, Bharangi*

ix. *Hrudaya: Arjun, Tulasi*

x. *Pliha: Sharpunkha, Rohitaka*

xi. *Yakruta: Kutaki, Daruharidra*

xii. *Amashaya: Chitrak, Mustak*

xiii. *Agnyashaya: Vijaysar, Kalmegh*

xiv. *Pittashaya: Talamkhana, Kutaki*

xv. *Grahani: Falgu, Aragvadh*

xvi. *Vrukka: Gokshur, Punarnava*

xvii. *Mutrashaya: Palasha, Gokshur*

xviii. *Sira, Dhamani: Sariva, Manjishtha*

xix. *Mansapeshi: Bala, Ashvaganda*

xx. *Asthi, Sandhi: Rasna, Guggulu*

#### 6. Few of many Rasayana Dravya<sup>[9]</sup> in Sports with Mode of Action.

Sr. No.	Dravya	Karma	Action in Sports
1.	<i>Bala [Sida cordifolia. (Linn.)]</i>	<i>Balya</i>	Nourishment of muscles
2.	<i>Pippali [Piper longum. (Linn.)]</i>	<i>Pranvaha srotas</i>	Enhance lung capacity
3.	<i>Vacha [Acorus calamus. (Linn.)]</i>	<i>Medhya</i>	Enhance cognitive functioning
4.	<i>Guduchi [Tinospora cordifolia. (Willd.)]</i>	<i>Amruta</i>	Nourishment of Rasaraktadi Dhatus
5.	<i>Ashwagandha [Withania Somnifera. (Linn.)]</i>	<i>Balya, Bruhana</i>	Nourishment of muscles
6.	<i>Shatavari [Asparagus racemosus. (Willd.)]</i>	<i>Balya, Stanya</i>	Especially useful in women sport players
7.	<i>Brahmi [Bacopa monnieri. (Linn.)]</i>	<i>Medhya</i>	Enhances cognitive functioning
8.	<i>Bharangi [Clerodendrum serratum. (Linn.)]</i>	<i>Pranvaha srotas</i>	Improves lung functioning
9.	<i>Arjuna [Terminalia arjuna. (Roxb.)]</i>	<i>Hrudya</i>	Helpful in normal functioning of heart
10.	<i>Guggul [Commiphora mukul. (Arn.)]</i>	<i>Asthivaha srotas</i>	Prevents wear and tear of joints and bones

**DISCUSSION**1. Benefits of *Rasayana*<sup>[10]</sup>

- *Dirgha Ayu* (promotes longevity)
- *Smriti* (bestows memory)
- *Medha* (Intelligence)
- *Arogya* (freedom from disease by providing strength)
- *Taruna Vaya* (youth)
- *Prabha* (lustre of skin)
- *Varna* (complexion)
- *Swara* (vocal enhancement)
- *Aaudarya* (optimum strength of physique)
- *Deha Indriya Bala Param* (optimum potentiality of sense organs)
- *Vaksiddhi* (perfection in deliberation)
- *Pranati* (respectability)
- *Kanti* (brilliance)

2. *Rasayana* essentially denotes medicinal nutrition, rejuvenation, longevity, immune-enhancing and geriatric health care. The *Rasayana* are not necessarily drugs. They may be in the form of a *Rasayana* food, or a positive healthy life style with a *Rasayana* effect or a *Rasayana* drug or all the three together. The *Rasayana* remedies promote good qualities of the cells and tissues of the body through improved nutrient effect, boosting the digestion, metabolism and/or augmenting the microcirculation and tissue perfusion.<sup>[11]</sup>

3. Hence *Rasayana* can be used in sports to obtain strength, immunity, vitality, will power and determination.

5. It will prevent wear and tear of tissues thereby preventing sports injuries.

6. Even when injured or has to do strenuous workout or training, someone who has been regularly consuming *Rasayana* is not injured easily or gets easy healing of injuries.

**CONCLUSION**

*Ayurveda* is gaining phenomenal importance in the field of Sports medicine. Although a new invention for others, thousands of years ago the *Acharyas* in *Ayurveda* have explained importance of *Rasayana* in every field for every person. *Rasayana* in sports person can be helpful in replenishment of all *Sapta Dhatus* to optimum health thereby enhancing sports performance as well as preventing sports injury. It will also promote mental as well as spiritual health thereby enhancing capability to face the defeats with positivity.

It is the need of an hour to use and promote *Ayurveda*'s principle of *Rasayana* in the field of sports.

**REFERENCES**

1. A review on *Rasayana*, *Phcog Rev*, 2009; 3(6): 229-234.
2. Wikipedia.
3. Prof. Joshi Y.G., *Charaka Samhita*, *Vaidyamidra Prakashana*, Vol. 1, edition 2015, *Sutrasthana*, *Adhyay*, 25 Verse no. 40: 306.

4. Prof. Y.G. Joshi, *Charaka Samhita*, *Vaidyamidra Prakashana*, Vol. 2, edition 2015, *Chikitsasthana*, *Adhyay 1 Pada*, 4, Verse no. 30-35, pg. no. 38-39.
5. <http://namstp.ayush.gov.in/#/sat>.
6. Prof. Murthy K.R., *Ashtang Hridayam*, edition 2001, *Krishnadas Academy*, *Varanasi*, *Sutrasthana*, *Adhyay 2*, verse no. 18-46, pg. no. 9-11.
7. Pd. Hemraj Sari and Prof. Satyapal Bhishagacharya, *Kashyap Samhita*, *Chaukhamba Sanskrit Series Office*, *Khilasthana*, *Adhyay 4*.
8. [https://www.google.com/imgres?imgurl=https://lookaside.fb.com/lookaside/crawler/media/?media\\_id%3D476810637810335&imgrefurl=https://www](https://www.google.com/imgres?imgurl=https://lookaside.fb.com/lookaside/crawler/media/?media_id%3D476810637810335&imgrefurl=https://www).
9. Prof. Deshpande. A. P., Prof. Javalekar R. R., *Dravyagunavidnyana*, Part 2, *Proficient Publication*, edition 2013.
10. Prof. Joshi Y.G., *Charaka Samhita*, *Vaidyamidra Prakashana*, Vol. 1, edition 2015, *Chikitsasthana*, *Adhyay 1 Pada 1*, Verse no. 7-8, pg. no.4.
11. [https://www.carakasamhitaonline.com/index.php?title=Rasayana\\_Adhyaya](https://www.carakasamhitaonline.com/index.php?title=Rasayana_Adhyaya).