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Review Article

**REVIEW ON IMMUNITY BOOSTER CHYAVANPRASH
FORMULATION**¹Vidya Aher, ²Mr. Rushikesh Garad, ³Dr. Vivekanand Kashid¹Student, MABD institute of pharmaceutical Education and Research Babhulgaon Yeola
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423401**Abstract:**

A traditional Ayurvedic polyherbal remedy known for its immunity-boosting and restorative qualities is chyavanprash. The main ingredient, *Emblica officinalis* (Amla), which is a rich source of vitamin C and strong antioxidants, is a synergistic blend of herbs, spices, minerals, and natural sweeteners. To improve absorption and palatability, the formulation usually consists of over 40 herbs, including *Withania somnifera*, *Piper longum*, *Tinospora cordifolia*, and *Cyperus rotundus*, mixed with ghee, honey, and jaggery. As a Rasayana, chyavanprash improves respiratory health, increases immunity to infections, delays the aging process, and fosters vigor.

Its function in bolstering the immune system by regulating humoral and cell-mediated responses has been confirmed by contemporary scientific research. Given the complexity of the components and preparation, Chyavanprash must be standardized and quality controlled to guarantee both therapeutic efficacy and safety. In the contemporary era of lifestyle-related health issues, this study emphasizes the pharmacological data, formulation method, traditional wisdom, and phytochemical ingredients that support the use of chyavanprash as a natural immunity booster.

Keywords : Chyavanprash, *Withania somnifera*, Standardization, phytochemical, respiratory.

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INTRODUCTION:

The two lexes "Chyawan" and "Prasha" make up Chyawanprash (CP), sometimes referred to as Chyavanaprasha, Chyavanaprash, Chyavanaprasam, and Chyawanaprash. In addition to being the name of a sage, the word "Chyawan" also represents "degenerative change." Prasha indicates a meal or medication that is fit for ingestion. In fact, CP is a complete "metabolic" tonic that is used to prevent and improve health. It contains a number of different herbs. A traditional Ayurvedic recipe is used to make chyawanprash, an ancient Indian formulation (a polyherbal jam) enhanced with a variety of herbs, herbal extracts, and processed minerals ^[1]

CP has been used for generations and is considered by many experts to be a necessary health supplement. Since ancient times, chyawanprash has been used extensively as a medicine to increase longevity and immunity as well as a health supplement due to its many health advantages. Since its introduction, Chyawanprash has been a part of every Indian's life, regardless of societal, political, or scientific considerations. Long before the invention of vitamins, minerals, and antioxidant supplements, it was one of the foods most valued for its antiaging properties. A subset of Ayurveda called Rasayana encompasses a variety of specialized techniques meant to increase longevity, prevent aging and illnesses, eradicate degenerative processes, and foster optimal health ^[2]



Fig no 1 :Chyawanprash

CP is without a doubt the most significant of all the Rasayana formulations listed during the classical and medieval eras. Mythological accounts of the development of CP are cited in treatises of Indian traditional knowledge that date back to the early Christian era. According to legend, Sukanya, a princess and the daughter of King Sharyati, pierced the eyes of the sage Chyavan while he was meditating. An anthill-like construction was then constructed to cover his body, with the exception of a few holes that allowed the sage's eyes and nose to remain open. It is reported that the princess was cursed by the sage who wept in agony after losing his sight. After learning the same thing, the monarch of the land pleaded for forgiveness and wed Sukanya and Chyavan ^[3]

The twin sages Ashvini Kumaras were impressed by the princess's efforts and compassionate demeanor.

They then gave Chyavan sage a recipe to cook and eat in order to restore his health and vigor, which had been lost from years of meditation. The dish was named "Chyawanprash" because the sage Chyavan was to consume it (prasha, which means medication or diet suitable for oral administration). It is reported that the sage regained his youth, vitality, and health after consuming this dish. This nearly unremarkable preparation is found in classic publications and is still made at home by a small number of knowledgeable individuals for the family as a whole ^[4]

The Charaka Samhita is where CP, an avaleha preparation (semisolid jam resembling linctus), was first mentioned. However, the CP recipes found in over six Ayurvedic authoritative sources listed in the First Schedule to the Drugs and Cosmetics Act vary in terms of the amounts and composition of herbs and minerals indicated in the Charaka Samhita.

A multi-step approach for CP preparation is described in the traditional textual process. The recipe's crude herbs, which are indicated in serial numbers 1 through 36 and meet the quality requirements outlined in the Ayurvedic Pharmacopoeia of India [API], were ground and run through sieve number 44. This mixture of herbs is mixed with a certain volume of purified water and agitated (kwatha dravya, or liquid for decoction) ^[5]. After washing and tying the fresh amla fruits into a bundle with muslin cloth, the bundle is submerged in the vessel that holds the kwatha dravya, and the contents are heated to a gentle boil. After heating the amla fruits until they are tender, the bundle is taken out of the vessel. Continue boiling until the amount of water is just one-fourth of its original volume, then let cool and drain through muslin fabric. To be used in the following stage, the strained decoction is saved. After pressing the marc and adding the resulting liquid to the strained decoction, the marc is thrown away ^[6]

Add this pisti to the contents of the vessel containing the decoction, then add the designated amount of sharkara (food-grade or pharmaceutical-grade sugar) and boil slowly while stirring until a soft, semisolid gel-like mass (leha paka) develops. Two to three grams of leha paka are put to a glass of room temperature (RT) water to evaluate its consistency; the leha paka should settle and not scatter in the water for five to ten minutes. Allow it to cool to 50 °C after turning off the heat. Separately crush the raw ingredients to a fine powder (99% passing through sieve number 60) while adhering to the quality standards specified by the API for serial numbers 43 to 48 ^[7]

Origin :The myth of the woodland sage Chyawan Rishi is the source of CP's unusual name. The twin Ashvini Kumar brothers, the royal physicians to the

Gods during the Vedic era, created this polyherbal preparation to make the sage Chyawan Rishi younger and increase his vigor and power, according to a number of ancient religious treatises, including the Mahabharata, the Puranas, etc. The recipe, named for the old sage, was created in his hermitage on Dhosi Hill, close to the Narnaul region in the Indian state of Haryana. It was named "Chyawanprash." He had become feeble, gaunt, and elderly as a result of his rigorous enlightenment practices^[8]

He used CP to restore his vigor, vitality, and youth. The Charaka Samhita, an ancient Ayurvedic classic, contains the most well-known recipe for CP that has been documented historically. It is praised for being better than all other herbal rejuvenating tonics. The ancient Ayurvedic writings that are devoted to clinical management—Ashtanga Hridayam, Charaka Samhita, and Sangandhara Samhita—describe the Chyawanprash formula. Amla, a citrus fruit that is a well-known and powerful herb in Ayurveda, is the main constituent. The nutritional and medicinal benefits of each of CP's ingredients have been confirmed by science. All of these nutrients are combined in precise amounts and put through special pharmaceutical procedures in a way that creates a strong synergy for the best possible health benefits^[9]

Ingredients

Amla (Indian gooseberry): The main component and the main source of its health advantages, amla is high in vitamin C and antioxidants. The Amla tree, which is mostly found in India and Southeast Asia, bears the tiny green fruit known as amla (*Phyllanthus emblica*). It is spherical, striped vertically, and tastes distinctly acidic, sour, and slightly bitter. Amla is regarded as a tridoshic fruit in Ayurveda, meaning it balances the three doshas of Pitta, Kapha, and Vata. Amla can be eaten raw, dried, pickled, juiced, or ground into a powder. It is an essential component of many Ayurvedic formulas, including chyawanprash and triphala. Amla is renowned for having a high vitamin C content. It has nearly the same amount of vitamin as sixteen bananas and three oranges^[10]



Fig no 2 : *Phyllanthus emblica* (Amla)

2. Pippali (*Piper longum*)

Despite being a member of the pepper family, pippali has a quite different appearance from the tiny, spherical black pepper we are used to. Its binomial

name is *Piper longum*. Pippali is a unique spice because of its long, slender form, fruity flavor, and exceptional therapeutic qualities. A meal can be improved with just a dash. Due to its limited availability and easier access to chilli powder, it lost its place as a staple of the Indian spice box. However, this age-old spice is returning to both home and restaurant kitchens as the pandemic has stoked a desire to improve respiratory and immune health^[11]



Fig no 3 : Pippali (*Piper longum*)

3. Guduchi plant

Giloy, also known as Guduchi (*Tinospora cordifolia*), is a well-known Ayurvedic medicinal herb that has strong immunomodulatory, antipyretic, and detoxifying qualities. It is a climbing shrub that is indigenous to India and a member of the Menispermaceae family. Guduchi, formerly known as Amrita in Sanskrit (meaning "nectar of immortality"), has been used to treat a number of immune-related conditions as well as fever, diabetes, inflammation, and arthritis^[12]



Fig no 4 : Guduchi plant

4. Gokshura

The Ayurvedic herb gokshura (*Tribulus Terrestris*) is well recognized for its aphrodisiac, immunity-boosting, and rejuvenating qualities. Since the fruits of this plant resemble cow hooves, its name is derived from two Sanskrit words: "Go," which means cow, and "Aakshura," which means hoof. Gokshura has a Madhura (sweet) taste and a Sita (cool) potency. It is beneficial for giving the body strength because of its Balya (strength supplier) feature. Tridosha (Vata-Pitta-Kapha) is said to be balanced by Gokshura. Because of its mutral (diuretic) properties, it is also used to treat urinary problems. When combined with ashwagandha, gokshura helps increase stamina, which is good for bodybuilding and bettering athletes' performance^[13]



Fig no 5 :Gokshura

5. Ashwagandha (*Withania somnifera*)

An essential herb in the Ayurvedic medical system is ashwagandha. Other names for it include winter cherry and Indian ginseng. The herb is known as ashwagandha because of its unique scent, which is reminiscent of horse sweat. Because of its Rasayana (Rejuvenating) and Vata-balancing qualities, ashwagandha is well known for helping to manage issues related to stress and anxiety. These qualities might also aid in the treatment of diabetes. Additionally, it contains the aphrodisiac property Vajikarana, which helps treat diseases like erectile dysfunction and improves stamina. Ashwagandha root powder can be given with milk to assist treat erectile dysfunction and male infertility. For a variety of nerve-related issues, it is utilized as a nervine tonic^[14]



Fig no 6 :Goksharu

6. Brahmi (*Bacopa monnieri*)

The perennial herb known as Brahmi, which is a combination of the names of Lord Brahma and Goddess Saraswati, is most recognized for its ability to improve memory.

By removing mucus from the airways, brahmi tea, which is prepared by brewing brahmi leaves, helps treat bronchitis, chest congestion, and colds. Because of its anti-inflammatory properties, it also lessens respiratory tract and throat pain and irritation. Because of its antioxidant properties, taking Brahmi powder with milk helps to boost brain functions by avoiding free radical-induced damage to brain cells. Because of its ability to promote cognition, it is utilized as a brain tonic and memory enhancer for children^[15]



Fig no 7 :Bramhi

7. Cardamom :

Cardamom, also known as cardamon or cardamum, is a spice that is manufactured from the seeds of various plants of the Zingiberaceae family's genera Elettaria and Amomum. Both genera are indigenous to Indonesia and the Indian subcontinent. Their tiny seed pods, which are spindle-shaped and triangular in cross-section, with a thin, papery outer shell and tiny, black seeds, are what identify them; Amomum pods are larger and dark brown, while Elettaria pods are light green^[16]



Fig no 8 :Cardamom

8. Cinnamon

The inner bark of various tree species in the genus Cinnamomum yields cinnamon, a spice. Cinnamon is mostly used as a flavoring and aromatic condiment in a wide range of foods, including teas, hot chocolate, biscuits, breakfast cereals, snack foods, bagels, and sweet and savory dishes. Cinnamaldehyde, the primary element and essential oil of cinnamon, along with a host of other components, such as eugenol, are responsible for the spice's flavor and aroma^[17]



Fig no 9 :Cinnamon

9. Ghee

India has been producing and using ghee, a form of clarified butter fat, since ancient times. It is utilized in religious ceremonies and as a medicinal substance in Ayurveda. It is regarded as a spiritual dish in India and is well-liked due to its nutritious qualities, distinct flavor, and perfume. Several animal species' milk, cream, or butter are used to make it. Ghee is a crucial culinary tool since it enhances food's flavor and supports overall wellness. When compared to

other fats or oils, it is still a popular choice among Indian households, and some reliable brands—such as Gowardhan, Anik, Milkfood, Madhusudhan, Verka, Amul, Healthhaid, Gopaljee, Nestle Everyday, Patanjali, and Britannia—have a significant market share^[18]



Fig no 10 :Ghee

Manufacturing Process of Chyawanprash :

The standard operating procedure (SOP) for CP preparation is now different for every company because it is not explicitly described in ancient literature. The usage of five hundred Amla in one lot is mentioned in the current authorized publications of the Indian medical system. However, the main obstacle to SOP and consistency is diversity in Amla size and the amount of pulp that is collected. Amla was primarily gathered from forests in the past. It was found that the vitamin C content of Amla fruit gathered from forests was higher than that of fruit grown in cultivation^[19].

Since developed hybrid Amla is larger than wild-collected Amla, 500 fresh Amla can weigh anywhere between 2.5 and 25.25 kg. For 500 numbers, the Ayurvedic Formulary of India (AFI) suggests using 2.5 kilogram of fresh amla and 2.4 kg of sugar. 500 of these fruits, if developed hybrid Amla is available, would weigh about 6.5 kg. CP is traditionally prepared by suspending 50 g of each of the medicinal herbs—Bael, Agnimanth, Kashmarya, Shyonak, Paatla, Gokshur, Sarivan, Barikateri, Kantakaari, Kakdasingi, Draaksha, Haritaki, Guduchi, Bala, Bhumyamalaki, Vasa, Jivanti, Kachur, Pushkarmul, Musta, Mudagparni, Mashaparni, Shalparni, Pithawan, Pipali, Kaknasa, Varahi, Vidaarikand, Punarnava, Neelkamal, Aguru, Chandan, Shatavar, and Asgandh.

Five hundred Amla fruits (each weighing around 15–20 g, for a total weight of 6.5 kg) are wrapped in sanitized cotton fabric to create a bale, or pottali, and then immersed in the previously indicated herb mixture. The admixture is then heated until the decoction is reduced to a quarter. Amla seeds are extracted after the pottali is removed; the pulpy part that remains is rubbed on a sanitized muslin cloth, Amla fibers are separated, and Amlapishthi, or moist paste made from Amla pulp, is gathered. After straining the decoction, the mare is thrown away^[20] Then, in an iron container, Amlapishthi is combined with Yamakadravyas (lipids: 500 g each of cow ghee and sesame oil) and fried until it turns brownish-red

and the Yamaka (lipids) begin to separate. After that, sugar is added to the herbal infusion to create sugar syrup. This decoction syrup is mixed with fried amlapishthi and cooked till two strings of viscosity are achieved. Following the cessation of the heating process, 150 g of Vanshalochan, 100 g of Pipali and Nagakesar, and 10 g each of Elaichi, Tamalpatra, and Dalchini herbal powders are added to the mixture and mixed until it becomes homogenous. The final result is obtained and placed in airtight, sterile containers once the mixture has cooled and 250 g of honey (old, natural, or pure) has been evenly combined^[21]

Lastly, the prepared CP has a dark brown hue and a viscosity and appearance similar to wet paste. the entire typical CP preparation operation procedure. Since the elements in chyawanprash counteract the negative effects of extreme weather and climatic or environmental change, people of all ages can use it in any season. The dosage of chyawanprash should be such that it does not interfere with appetite or hunger. CP (12–28 g) should normally be taken in the morning on an empty stomach with 100–250 ml of milk. However, it is advised that people with respiratory conditions, such as asthma, refrain from consuming milk and curd.

In these situations, lukewarm water might be used to deliver the formulation. According to a study, CP may undergo chemical deterioration during storage, which could reduce its therapeutic potency. Therefore, it is advised to use CP within a year of the manufacturing date.

The "Vitamin C" Debate Amla is the primary ingredient (35%) and has a high amount of vitamin C (445 mg/100 g). It is difficult to guarantee the consistency of Ayurvedic medications' composition and, consequently, the effectiveness of finished goods because of the absence of consistent quality control standards^[22]

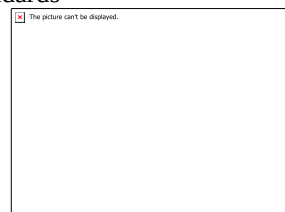


Fig no 11 :Chyawanprash

A Nutraceutical and Functional Food Chyawanprash: Stephen De Felice first used the term "nutraceutical" in 1989 to describe "a food or part of a food that provides medical or health benefits, including the prevention and/or treatment of disease." For the past 5,000 years, chyawanprash has been a steadfast and vibrant part of Indian heritage as a nutraceutical and functional food. It has endured because of its unmatched health advantages.

According to reports, chyawanprash is rich in vitamins, protein, dietary fiber, energy, and carbohydrates. It also has an impressive amount of major and minor trace elements (mg/100g), including Fe (21.1), Zn (3.1), Co (3.7), Cu (0.667), Ni (1.4), Pb (2.4), Mn (8.3), vitamin C (0.5), tannic acid (20.2), other vitamins A, E, B1, B2, and carotenoids that act as micronutrients for health-invigorating purposes. Additionally, it offers a number of vital phytoconstituents, including phenolic compounds, flavonoids, alkaloids, saponins, antioxidants, and piperine.

Memory impairment: Taking Chyawanprash on a regular basis improves memory. Ayurveda states that a heightened Vata dosha or inactive Kapha is the cause of poor memory. Taking Chyawanprash enhances memory and balances Vata. Its Medhya (improves intelligence) attribute is the cause of this [23]

Malnutrition: According to Ayurveda, malnutrition is linked to Karshya illness. This results from inadequate digestion and dietary deficiencies. Using Chyawanprash on a regular basis aids in the fight against malnutrition. Its Balya (strength provider) property is the cause of this. Chyawanprash gives you energy right away and meets your body's calorie needs.

Encourages Digestion: In addition to its adaptogenic benefits, chyawanprash has outstanding digestive capabilities. The formulation's anti-flatulent quality lessens gas production in the alimentary canal, which lessens distension of the abdomen, bloating, and flatulence. The root powder's high fiber content makes it an effective treatment for constipation and other digestive problems. The herbs' antacid qualities heal gastritis, ulcers, and indigestion by preventing the stomach from producing too many acids. They also help the body absorb nutrients more effectively [24]

Strengthens Immunity: Chyawanprash provides a foolproof solution for boosting immunity, combating bacteria, and protecting the body from a variety of ailments because it contains antioxidants and vitamin C. Strong antiviral, antibacterial, and antifungal qualities are also depicted, which are very helpful in avoiding infections such as fever, the common cold, sore throat, and other respiratory disorders. See Also: The Top 8 Ayurvedic Immunity-Boosting Formulations [25]

CONCLUSIONS:

Because they are more affordable and have fewer adverse effects than traditional synthetic nutraceuticals, natural health products with medicinal potential are becoming more and more significant in clinical research. CP is extremely

valuable in terms of treatments and international trade among the large library of such items. The numerous historical medicinal claims of CP are highlighted in this article, along with the scientific data that supports them.

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