



“A review on Polyherbal Chyawanprash”

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Abstract

Chyawanprash (CP) is an Ayurvedic health supplement which is made up of a super-concentrated blend of nutrient-rich herbs and minerals. It is meant to restore drained reserves of life force (ojas) and to preserve strength, stamina, and vitality, while stalling the course of aging. Chyawanprash is formulated by processing around 50 medicinal herbs and their extracts, including the prime ingredient, Amla (Indian gooseberry), which is the world's richest source of vitamin C.

Chyawanprash preparation involves preparing a decoction of herbs, followed by dried extract preparation, subsequent mixture with honey, and addition of aromatic herb powders (namely clove, cardamom, and cinnamon) as standard. The finished product has a fruit jam-like consistency, and a sweet, sour, and spicy flavor.

Scientific exploration of CP is warranted to understand its therapeutic efficacy. Scattered information exploring the therapeutic potential of CP is available, and there is a need to assemble it. Thus, an effort was made to compile the scattered information from ancient Ayurvedic texts and treatises, along with ethnobotanical, ethnopharmacological, and scientifically validated literature, that highlight the role of CP in therapeutics. Citations relevant to the topic were screened.

Keywords: Chyawanprash, ayurveda, Indian gooseberry, medicinal plants, nutraceutical, health supplement, traditional medicine

1. Introduction

Chyawanprash (CP) (also known as chyavanaprasha, chyavanaprash, chyavanaprasam, and chyawanaprash) comprises two lexes, “Chyawan” and “Prasha”. The word Chyawan is the name of a sage, and also symbolizes ‘degenerative change’. Prasha denotes a drug or foodstuff that is suitable for consumption. Indeed, CP is a comprehensive ‘metabolic’ tonic; it contains a variety of herbs and is used to promote health and prevent diseases.

Chyawanprash is an ancient Indian formulation (a polyherbal jam), prepared according to a traditional Ayurvedic recipe, enriched with several herbs, herbal extracts, and processed minerals. Regarded by many experts as an essential health supplement, CP has been around for centuries. Chyawanprash possesses multiple health benefits and has been widely used since ancient times as a health supplement and as a medicine for enhancing immunity and longevity.

Chyawanprash has been a part of every Indian’s life from the day It was introduced, irrespective of sociocultural, political, and scientific factors. It was one of the most appreciated foods for its antiaging effects long before vitamins, minerals, and antioxidant supplements came into existence [1].

Rasayana, a branch of Ayurveda, includes a number of specialized approaches aimed at prolonging life, preventing aging and diseases, eliminating degenerative processes, and promoting excellent health. Of all the Rasayana formulations enumerated during the classical and medieval periods, CP undoubtedly stands out as the most important.

This formulation has made major strides as an over-the-counter product since it entered the consumer market in the 1950s. It is highly appreciated for possessing multiple health benefits and addressing the preventive, promotive, and curative aspects of health.

2. Origin

The atypical name of CP originates from the legend of Chyawan Rishi, who was a forest sage. Various ancient sacred treatises, such as the Mahabharata, the Puranas, etc., describe how the twin Ashwini Kumar brothers (the royal physicians to the Gods during the Vedic era) invented this polyherbal preparation to make the sage Chyawan Rishi younger and improve his vitality and strength.

The formulation was prepared at his hermitage at Dhosi Hill near the Narnaul area, in the state of Haryana, India; drawing its name from the ancient sage, the formula was called “Chyawanprash”. He followed strict practices to become enlightened, and this had made him weak, emaciated, and aged. To regain his youthfulness, vitality, and strength, he used CP [5,6,7,8].

The foremost historically recorded recipe for CP is reported in the Charaka Samhita, the ancient Ayurvedic classic, where it is appreciated as being superior to all other herbal rejuvenative tonics [9].

3. Composition

Chyawanprash is a potent antioxidant paste, prepared through the synergistic blending of around 50 herbs and spices. Chyawanprash falls, by virtue of its consistency and form of dosage, under the category of Awaleha (electuaries/herbal jams), a group of Ayurvedic formulations [10].

Typically, CP includes four classes of herbal drugs: The Dashmula class (ten roots); the Chaturjata class (four aromatic plants); Ashtavarga (threatened medicinal herbs from the Northwest Himalayas, which are not commercially available in the modern era) [11]; and a general class (materials not belonging to the former classes).

The Chyawanprash formula is described in the ancient Ayurvedic texts, namely, Ashtanga Hridayam, Charaka Samhita, Sangandhara Samhita, which are dedicated to clinical management. The dominant ingredient is Amla, a citrus fruit that is a highly renowned and potent botanical in Ayurveda. The main ingredients of CP, along with their botanical identities, key active biomolecules and specific therapeutic roles, are detailed in figure as below.

Fig. 1 herbals for Chyawanprash



Each ingredient of CP is scientifically validated for its nutritive and therapeutic efficacy. All these nutrients are blended in specific quantities and subjected to unique pharmaceutical processes in such a fashion that builds a potent synergy for optimal health virtues [5,5].

However, noncompliance with ancient manufacturing guidelines and deviation from the original recipe is a common malpractice in the pharma sector. The original formula is wiped out in between the practices of preparation and immoral marketing tactics to make it more presentable an appealing than the competitors' product. It will no longer be called CP if there is any change in the ingredients of the traditional formula.

4. Ingredients

1. Amla (Indian Gooseberry) – Rich in vitamin C and antioxidants, it is the key ingredient and the primary source of its health benefits.



Fig.2 indian gooseberry

Amla known as *Indian gooseberry*. Belongs to the family *Phyllanthaceae*. Having scientific name *Phyllanthus emblica*.

2. **Pippali** (*Piper longum*)

- It can help activate Agni or digestive fire and improve metabolism.
- Pacifies Vata and Kapha Doshas.
- From Bengal and Assam



Fig. 3 *Piper longum*

Pippali, also known as *long pepper* (scientific name: *Piper longum*) Belongs to the family *Piperaceae*.

3. **Guduchi**

- Immunomodulator
- Adaptogen
- Hepatoprotective

Guduchi, also known as *Tinospora cordifolia*, Belongs to the family *Menispermaceae*



Fig. 4 *tinospora cordifolia*

4. **Gokshura**

- Kidney rejuvenation
- Improves strength and stamina



Fig. 5 *tribulus terrestris*

Gokshura, also known as *Tribulus terrestris*, Belongs to the family *Zygophyllaceae*.

5. **Ashwagandha** (*Withania somnifera*)

- Known for its adaptogenic properties I
- It helps reduce stress and improves overall vitality.



Fig. 6 Withania Somnifera

Ashwagandha also known as *Withania Somnifera* **Family** : *Solanaceae* (*Nightshade family*)

6. **Brahmi** (*Bacopa monnieri*)

- Improves memory
- Improves Cognition
- Improves Mental clarity



Fig. 7 Brahmi

Brahmi commonly known as *figwort family*. **Family** : *Scrophulariaceae* (*Figwort family*).

7. **Cardamom, Cinnamon, and Clove** – Spices that support digestion, circulation, and general well-being.



Fig. 8 Cardamom, Cinnamon, and Clove

Cardamom family: *Zingiberaceae* **Cinnamon family :** *Lauraceae* **Clove family :** *Myrtaceae*

8. **Ghee (Clarified butter)**

- Act as a base for mixture



Fig.9 ghee

9. **Honey**

- Used for its natural sweetness
- Therapeutic properties



Fig.10 honey

5. The “Missing” 8 Ingredients of Chyawanprash

The Government of India has already framed policies for the preservation, cultivation, and sustainable extraction of rare and endangered medicinal plants. Out of these, eight rare herbs that are Ingredients of the “original” ancient recipe for CP are missing in commercial formulations of this traditional medicine. Commercial formulations now use substitute herbs. Among these eight, four belong to the orchid family, three are from the lily family, and one belongs to the house of gingers.

These are conjointly called Ashtavarga and are said to augment the antioxidant role of Amla. Non-availability of authentic plants, confusion in vernacular names, and lack of chemical markers lead to substitution/adulteration of t plants [5]. These Ashtavarga herbs which are close to extinction are stipulated in Table.

Table 2

Eight “missing” ingredients of CP—the Ashtavarga.

Botanical Name	Folk Name	Family	Substitutes Used in Commercial CP
<i>Crepidium acuminatum</i>	Jeevak	Orchidaceae	Vidaarikand (<i>Ipomoea digitata</i>)
<i>Malaxis muscifera</i>	Rishbhak	Orchidaceae	
<i>Habenaria intermedia</i>	Riddhi	Orchidaceae	Varahikand (<i>Dioscorea bulbifera</i>)
<i>Habenaria edgeworthii</i>	Vriddhi	Orchidaceae	
<i>Roscoeia purpurea</i>	Kakoli	Zingiberaceae	Ashwagandha (<i>Withania somnifera</i>)
<i>Lilium polyphyllum</i>	Kshirkakoli	Liliaceae	
<i>Polygonatum verticillatum</i>	Meda	Liliaceae	Shatavari (<i>Asparagus racemosus</i>)
<i>Polygonatum cerhifolium</i>	Mahameda	Liliaceae	

6. Manufacturing Process of Chyawanprash

Since the standard operating procedure (SOP) for CP preparation is not clearly narrated in ancient literature, at present, the modus operandi differs for each manufacturer. Current authoritative books of the Indian system of medicine mention the use of 500 numbers of Amla in a single lot. However, variation in Amla size and the quantity of the obtained pulp is the major limiting factor for the SOP and standardization. In historical times, Amla was mainly collected from forests.

It was observed that Amla fruit collected from forests has more concentration of vitamin C than that coming from cultivated fruit [6]. The weight of 500 fresh Amla varies from 2.5–25.25 kg, as cultivated hybrid Amla has a bigger size than wild collected Amla.

The Ayurvedic Formulary of India (AFI) considers the use of 2.5 kg of fresh Amla for 500 numbers and 2.4 kg sugar for its preparation [10]. If cultivated hybrid Amla is available, 500 such fruits would weigh approximately 6.5 kg.

The standard method of preparation of CP is: 50 g of each of medicinal herbs, such as 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, are suspended in 16 L potable water.

Five-hundred Amla fruits (each fruit having a weight of around 15–20 g, total weight: 6.5 kg) are swathed in clean cotton cloth to form a bale (pottali) and submerged into the aforementioned combination of herbs.

Thereafter, the admixture is boiled until decoction is reduced to 1/4th. After taking off the pottali, seeds are removed from Amla; the remaining pulpy portion is rubbed on a clean muslin cloth, Amla fibers are separated, and Amlapishthi (wet paste of Amla pulp) is collected. Decoction is then strained, and mare is discarded.

After this, Amlapishthi is mixed with Yamakadravyas (lipids: 500 g cow ghee and sesame oil each) in an iron container and fried until it gets brownish-red and the Yamaka (lipids) starts separating. Sugar syrup is then prepared by adding sugar in the herbal decoction.

Fried Amlapishthi is added to this decoction syrup and heated until attainment of viscosity of two strings. Then, when the heating is stopped, Prakshepadravya (herbal powders of 150 g Vanshalochan; 100 g Pipali and Nagakesar; Elaichi, Tamalpatra and Dalchini, 10 g each) are added and stirred until a homogeneous mixture is obtained.

After cooling the mixture, 250 g honey (old, natural, pure) is uniformly mixed, and the finished product is obtained and packed in airtight sterile containers. Finally, the prepared CP is of a dark

brown color, having wet paste-like appearance and consistency. The whole unit operating process of traditional CP preparation is depicted in below figure.



Figure 2

Unit operating process of traditional Chyawnprash preparation. (A) Raw material collection; (B) fresh Amla taken; (C) Amla boiling in *pottali* suspended in herbal decoction; (D) Amla pulp separated in muslin cloth; (E) Amla pulp frying in ghee and sesame oil; (F) fried until pulp goes brownish-red and the lipids start separating; (G) *Pishthi* cooked in decoction syrup until the attainment of two strings viscosity; (H) upon cooling, *prakshepa* herbal powders and honey added and mixed homogeneously; (I) finally, prepared Chyawanprash packed in airtight sterile containers.

Mode of Administration

Chyawanprash can be used by all age groups in every season, as its ingredients nullify the unpleasant effects of intense weather and climate or environmental change [2,6]. Chyawanprash should be taken in a quantity such that it does not interfere with hunger and appetite for food [6]. The general dosage of CP (12–28 g) is to be taken with milk (100–250 ml) on an empty stomach in the morning.

However, it is advocated that individuals suffering from asthma/respiratory ailments should avoid intake of milk and curd [6]. In such cases, the formulation can be administered with lukewarm water. It is recommended to consume CP within a year from the manufacturing date, as a study has indicated that chemical deterioration may occur during the storage period, resulting in loss of the therapeutic potency of CP.

The ‘Vitamin C’ Controversy

Amla, having rich vitamin C (445 mg/100 g) contents, constitutes the main ingredient (35%) [7,7]. Owing to the lack of uniform quality control standards of Ayurvedic drugs, it becomes challenging to ensure the uniformity of their composition and so the efficacy of final products [7]. Although the official quality testing methods for CP do not contain vitamin C content, there are contrasting findings apropos of its presence possibly due to the application of less sensitive and nonspecific methods of investigation.

A study in 1997 found that vitamin C was missing in the tested CP samples, and it might have been destroyed during cooking of the Amla pulp with cow ghee in the pharmaceutical process [7]. It has been reported that upon heat exposure during preparation of CP, the vitamin C contents remain unaffected [6,7], with a study reporting 34 mg/100 g vitamin C

Another study found that the percentage of vitamin C in the old samples of CP ($0.0253 \pm 0.0001\%$) was much lower than that of the new samples ($0.0512 \pm 0.0003\%$), thus signifying the chances of degradation on storage.

Chyawanprash: A Nutraceutical and Functional Food

The term ‘nutraceutical’ was coined in 1989 by Stephen De Felice as “a food or part of a food that provides medical or health benefits, including the prevention and/or treatment of disease.” Chyawanprash has been a consistent part of Indian tradition both as a functional food and nutraceutical for the past 5000 years, with constant zeal and vivacity, and has survived owing to its peerless health benefits.

Chyawanprash is reported to have rich vitamin, protein, dietary fiber, energy contents, carbohydrate, low fat contents (no-trans and zero percent cholesterol), and appreciable levels of major and minor trace elements (mg/100g), such as 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. It also provides several essential phytoconstituents, namely, flavonoids, alkaloids, saponins, antioxidants, piperine, phenolic compounds, etc.

The synergistic antioxidant effects of vitamin C along with vitamin E and carotenoids are well known. The rich nutritive composition and antioxidant biomolecules of CP act both singly as well as synergistically for immuno-modulation, body building, health restoration, and prevention of oxidative damage (a leading cause of several degenerative diseases)

Health Benefits:

Poor memory:

Regular intake of Chyawanprash helps to enhance memory. According to Ayurveda, poor memory is due to an inactivity of *Kapha* or aggravation of *Vata* dosha. Taking Chyawanprash helps in balancing *Vata* and improves memory. This is due to its Medhya (improves intelligence) property.

Tips:

- a. Take 2-3 teaspoons of Chyawanprash.
- b. Mix with milk or honey and have it once or twice a day before taking food.

Malnutrition:

Malnutrition can be correlated to *Karshya* disease in Ayurveda. This is due to the lack of nutrients and improper digestion. Regular use of Chyawanprash helps to fight against malnutrition. This is due to its Balya (strength provider) property. Chyawanprash provides instant energy and fulfills the calorie requirement of the body.

Tips:

- a. Take 2-3 teaspoons of Chyawanprash.
- b. Mix with milk or honey and have it once or twice a day before taking food.
- c. Repeat daily for 1-2 months.

Promotes Digestion:

Apart from adaptogenic properties, chyawanprash characterizes excellent digestive qualities. The anti-flatulent property of the formulation reduces the formation of gas in the alimentary canal, thus reducing bloating, flatulence, and abdominal distension. The abundance of fibre in the root powder makes this a powerful remedy for constipation and other digestive issues. The antacid property of the herbs prevents the formation of excessive acids in the stomach thereby treating indigestion, ulcer, gastritis and promoting better absorption of nutrients in the body.

Bolsters Immunity:

Thanks to the presence of antioxidants and Vitamin C, Chyawanprash offers an absolute remedy for improving the immune system, fighting microbes and shielding the body against various infections. It also portrays the presence of strong anti-viral, anti-bacterial, and antifungal properties, which is extremely effective in preventing infections like fever, common cold, sore throat, and other respiratory anomalies. Also Read: Top 8 Ayurvedic Formulations That Can Bolster Your Immunity

Market Trends:

Chyawanprash, a Rs 700-crore market, has seen an average 30-40% surge in demand over the last one week, industry sources said. Patanjali Ayurveda has pegged the growth in its chyawanprash portfolio at over 400% in one month, which is unprecedented.

Conclusions:

Natural health products with medicinal value are gaining importance in clinical research as they offer better alternatives, owing to fewer side-effects and cost-effectiveness than conventional synthetic nutraceuticals. Among the vast library of such products, CP is immensely valuable in terms of therapeutics and global trade. This review underscores the plethora of ancient therapeutic claims of CP, coupled with their validation by available scientific evidence.

Reported evidence supports its multifaceted preventive, promotive, and curative health benefits; proving it to be an ancient elixir with a modern cure. However, mechanistic studies and sufficient clinical reports are still lacking.

To sum up, CP is an Ayurvedic superfood and healer par excellence that strengthens the immune system and revitalizes the psychosomatic system, a superior, nutritious, and safe health tonic that is beneficial for all age groups and genders alike.

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