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## *Chyawanaprasha Rasayana: Proven Secret of Longevity*

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### ABSTRACT

*Rasayana* formulations in *Ayurveda* provide longevity, memory, intelligence, freedom from diseases, youthful age as well as physical strength. It is good for all age groups, prevents the effects of early ageing and increased immunity. The areas of specific consideration in *Ayurveda* are geriatrics, rejuvenation, nutrition, immunology, genetics, and higher consciousness. *Ayurvedic* text describes set of rejuvenating measures to impart biological sustenance to the bodily tissues. These remedies called “*Rasayana*” which are claimed to act as micronutrient. Geriatrics, a condition inevitable to all mankind, brings with it a series of disease and disorders. *Chyawanaprasha* being classified as *Rasayana*, maintains the body’s integrity & rejuvenates by improving digestion, pacifying *vikrita tridosha*, & regulates *Vata* thereby delaying the ageing process & thus enhances the longevity. Also its one amongst the unique polyherbal formulation classically mentioned for its wide range of indications including the vulnerable group i.e., children & diseased persons. Again, it has proved efficacy on number of conditions ranging from acute origin like cough, cold to chronic disorders such as tuberculosis, asthma, bronchospasm, etc. It contains about 50 ingredients; most of them have been scientifically well established individually for their health care benefits. In this article a brief review of this all-time proven *Ayurvedic* remedy has been taken along with its pharmaceutical, chemical and clinical parameters. Efforts are made to evaluate the potency of the formulation on the basis of various research works available on *Chyawanaprasha* itself as well as its main ingredients and to co relate its benefits with the management of senility of the body.

**KEYWORDS** *Chyawanaprasha*, *Rasayana*, *Gallic acid*, *Geriatric*, *Ayurveda*



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## INTRODUCTION

*Chyawanaprasha* is an excellent *Rasayana* which alleviates cough and dyspnoea, It is useful for wasted injured, old people and promotes development of children. It is also useful in hoarseness of voice, respiratory diseases, cardiac diseases, joint disorders, thirst and disorders of urine and semen, by using this *Rasayana* even the old attains intellect, memory, luster, longevity, strength of senses, sexual vigour, increased digestive fire (agni) and fairness of complexion.

*Chyawanaprasha* is a sticky jam like polyherbal formulation composition. The blend of so many herbs in a single compound formulation actually results into a very unique yet delicious regime. It not only acts as an anti-ageing and anti-oxidant agent but also possesses properties like anti-anxiety<sup>1</sup>, anti amnesic<sup>2</sup> as well as anti-ischemia reperfusion induced oxidative stress<sup>3</sup>. The benefits of *Chyawanaprasha* are also mentioned in *Ayurvedic* literatures and formularies (the one mentioned in 1<sup>st</sup> schedule of **Drug & Cosmetic Act**, 1940).<sup>4</sup> Now a days, various pharmacies are manufacturing *Chyawanaprasha*, but to understand the real potential of the formulation, a proper view over the pharmaceuticals and chemical composition is required.

## CHYAWANAPRASAHA

### PHARMACEUTICS IN AYURVEDA

The concept of this well known formulation '*Chyawanaprasha*' originates from *Charaka Samhita*<sup>5</sup>. Although some description of such kind of remedy also comes in *Rg-veda*, but a complete pharmaceuticals of this formulation has been first described in *Charaka Samhita*.

Method of preparation of *Chyawanaprasha* in *Charaka Samhita* is as follows - the 36 *dravyas* including *Dashmoola dravya* (each 1 *pala* ~ 48g) and *Amalaki phala* (100 *pala* ~ 4.8 Kg) are boiled with 5 *drona* (~12.288L) of water until the solution gets '*gatarasa*'. Then *Amalaki* fruits are brought out of the decoction decorticated and are fried with 12 *pala* (576g) of *Taila* and *Ghrita*. Finally ½ *Tula* (~2.4Kg) of *Matsyandika* (sugar) is added to it and cooked till it becomes *linctus*. On cooling, 6 *pala* (~288g) Honey is added along with 4 *pala* (~192g) *Tugakshiri*, 2 *pala* (~96g) *Pippali*, 1 *pala* (~48g) *Twaka*, *Patra*, *Ela*, *Nagkeshara*.

But as the time moved on, changes in method of preparation was observed. As in *Charaka Samhita*, only 5 *dravyas* of *ashta varga* (*Jivaka*, *Rishbhakaa*, *Riddhi*, *Meda*, *Kakoli*) are used whereas in *Sharangdhara*



*Samhita*<sup>6</sup>, 7 *dravyas* (excluding *Vridhhi*) are taken as *Kwatha* (decoction) *dravyas*. In today's era, drugs mentioned under *Jivaniya varga* are not available, so *Acharya Bhavaprakasha* has mentioned substitute *dravya* in place of these *Jivaniya varga dravya*. Manufactures are use *Vidarikanda* (replacing *Jivaka*, *Rishbhaka*), *Shatavari* (replacing *Meda*, *Mahameda*) and *Ashwagandha* (*Kakoli*, *Kshirkakoli*), which are said to be equally potent as *Jivaniya dravya*.

There is no description about quantity of *Kwatha drava* remained after boiling, only *gatarasatva* of *Kwatha dravyas* is considered as the completion of boiling. In *Sharangdhara Samhita*, it is clearly indicated that 1/8<sup>th</sup> *drava* should remain out of the total *drava* taken. Another difference is found in the frying process of *Amalaki* fruit pulp, as where *Acharya Charaka* has mentioned the use of both *Taila* and *Ghrita* but *Acharya Sharangdhara* quoted that only *Ghrita* should be used. *Acharya Charaka* mentioned the amount of *Chaturjata* (*Twaka*, *Patra*, *Ela*, *Nagkeshara*) to be 1 *pala* (~48g) where as *Acharya Sharangdhara* said its quantity to be 3 '*shana*' (~9g) each. In succeeding literatures, *Acharya Sharangdhara* has been followed with little or no variation in it. After the evolution of '*murchana*'<sup>7</sup>

concept in '*Bhaishajya Ratnavali*' the manufacturers prefer to add '*murchita*' *Ghrita* to the formulation rather than adding crude unprocessed *Ghrita*. Although very little work is done to evaluate the clinical efficacy of *murchita* and *non murchita Ghrita* but the clinical practices show that results are better with *murchita Ghrita*, the same we have noticed in my own practice.

Now a day, so many methods are used in preparation of *Chyawanaprasha*. With advancement of technology, various minerals and metals are added to its basic formulation to enhance the potency and expand the disease coverage area of the drug but the authenticity of these preparations are yet to be established. A difference of dose of *Chyawanaprasha* has also been noticed in *Charaka Samhita* and *Sharangdhara Samhita*. *Acharya Charaka* stated that its '*Matra*' shouldn't interrupt with the routine diet of the patient. In *Sharangdhara Samhita*, author said that the dose should be in accordance with '*Agni*' (digestive potential).

## CHEMICAL ANALYSIS OF CHYAWANAPRASHA

The main active ingredient of *Chyawanaprasha* is Indian Goose Berry which is a rich source of vitamin C and polyphenolics including Flavonoids.



**Table 1** Ingredients of *Chyawanaprasha*

Sr. no.	Common name	Botanical name	Herbal/ Non Herbal component used
1.	<i>Bilva</i> API	<i>Aegle marmalos</i>	Rt/St. Bk.
2.	<i>Agnimantha</i>	<i>Premna integrifolia</i>	Rt/St. Bk.
3.	<i>Syonaka</i> API	<i>Oroxylem indicum</i>	Rt/St. Bk.
4.	<i>Kasmari</i> ( <i>Gambhari</i> API)	<i>Gmelina arborea</i>	Rt/St. Bk.
5.	<i>Patala</i>	<i>Stereospermum suaveolence</i>	Rt/St. Bk.
6.	<i>Bala</i>	<i>Sida cardifolia</i>	Rt.
7.	<i>Salaparni</i>	<i>Desmodium Gangeticum</i>	Pl.
8.	<i>Prisniparni</i>	<i>Uraria picta</i>	Pl.
9.	<i>Mudgaparni</i>	<i>Phaseolus trilobus</i>	Rt./Pl.
10.	<i>Masaparni</i>	<i>Teramnus labialis</i>	Rt./Pl.
11.	<i>Pippali</i>	<i>Piper Longum</i>	Fr.
12.	<i>Svadamstra</i>	<i>Tribulus terrestris</i>	Pl.
13.	<i>Brihati</i>	<i>Solanum indicum</i>	Pl.
14.	<i>Kantakari</i>	<i>Solenum surattense</i>	Pl.
15.	<i>Sringi</i>	<i>Pistacia integerrima</i>	Gl.
16.	<i>Tamalaki</i> ( <i>Bhumyamalaki</i> )	<i>Phyllanthus amarus</i>	Pl.
17.	<i>Draksha</i>	<i>Vitis venifera</i>	Dr.Fr.
18.	<i>Jivanti</i>	<i>Leptadenia reticulata</i>	Rt.
19.	<i>Pushkara</i>	<i>Inula racemosa</i>	Rt.
20.	<i>Agaru</i>	<i>Aquilaria agallocha</i>	Ht.Wd.
21.	<i>Abhaya</i> ( <i>Haritaki</i> )	<i>Terminalia chebula</i>	p.
22.	<i>Amrita</i>	<i>Tinospora cardifolia</i>	St
23.	<i>Riddhi</i>	<i>Harbenaria intermedia</i>	Rt.Tr.
24.	<i>Jivaka</i>	<i>Malaxis acuminata</i>	Pseudo- bulb
25.	<i>Rishabhaga</i>	<i>Malaxis muscifera</i>	Rt.Tr.
26.	<i>Sati</i>	<i>Hedychium spicatum</i>	Rz.
27.	<i>Musta</i>	<i>Cyperus rotundus</i>	Rt.Tr.
28.	<i>Punarnava</i> ( <i>rakta</i> )	<i>Boerhaavia diffusa</i>	Pl.
29.	<i>Meda</i>	<i>Polygonatum cirrhifolium</i>	Rt.Tr.
30.	<i>Ela</i>	<i>Elettaria cadamomum</i>	Sd.
31.	<i>Candana</i> ( <i>Sveta candana</i> )	<i>Santalum album</i>	Ht.Wd.
32.	<i>Utpala</i>	<i>Nymphoeae stellata</i>	Fl.
33.	<i>Vidari</i> ( <i>kanda</i> )	<i>Pueraria tuberosa</i>	Rt.Tr.
34.	<i>Vasamula</i> ( <i>Vasa</i> )	<i>Adhatoda vasica</i>	Rt.
35.	<i>Kakoli</i>	<i>Lilium polyphyllum</i>	Rt.
36.	<i>Kakanasa</i>	<i>Martynia annua</i>	Fr.
37.	<i>Amalaka</i>	<i>Phyllanthus embelica</i> ( <i>Embelica officinalis</i> )	p.
38.	<i>Jala</i> API decoction	Water	Non herbal component
39.	<i>Ghrita</i>	Clarified butter frm cow's milk	Non herbal component
40.	<i>Taila</i> ( <i>Tila</i> API)	<i>Sesamum indicum</i>	oil
41.	<i>Matsyandika</i> ( <i>Sarkara</i> API)	Sugar	Non herbal component
42.	<i>Madhu</i>	Honey	Non herbal component
43.	<i>Tugakshiri</i> ( <i>Vamsa</i> API)	<i>Bambusa bambos</i>	Siliceous deposit
44.	<i>Pippali</i>	<i>Piper longum</i>	Fr.
45.	<i>Tvaka</i>	<i>Cinnamomum zeylancium</i>	St. Bk.
46.	<i>Ela</i>	<i>Elettaria cardamomum</i>	Sd.
47.	<i>Patra</i> ( <i>Tejapatra</i> API)	<i>Cinnamomum tamala</i>	Lf.
48.	<i>Kesara</i> ( <i>Nagakesara</i> API)	<i>Mesua ferrea</i>	stamen



It is also scientifically reported to have potent anti oxidant and free radical scavenging activity<sup>8</sup>. Vitamin C is released into the body due to an inherent mechanism of conversion into Gallic acid and reducing sugars<sup>9</sup>. Study has been performed on the Gallic acid evaluation of *Chyawanaprasha*, according to which 2.234mg of Gallic acid per gram is found in it on an average<sup>10</sup>. In that study the percentage of Gallic acid in *Chyawanaprasha* was found to be 0.223%. Ascorbic acid is an unstable compound and on storage causes degeneration<sup>11,12</sup>. This degeneration mainly proceeds via anaerobic pathways and this generally leads to the formation of several 'decomposition reactive' products<sup>13,14</sup> which when combine with amino acids, result in formation of brown pigments<sup>15,16</sup>. One of these degeneration product is HMF (hydroxyl methyl furfural), which is considered as the precursor of brown pigment. *Chyawanaprasha* is revered by many *Ayurvedic* scholars for its benefits on respiratory system<sup>17</sup>. The study of its individual content Shyaonaka (*Oroxylum indicum*) showed that plant extracts were active against bacteria in comparison to the controlled group<sup>18</sup>. Honey which is used as a sweetening agent also works as 'Yogavahi' and probably helps in the absorption of various herbs deep into the

tissues<sup>19</sup>. Studies have also been performed on Gallic acid content in new and old *Chyawanaprasha*, which show that new *Chyawanaprasha* formulation contains higher amount of Gallic acid than a 24 months old sample. In this study, total polyphenol content of new sample of *Chyawanaprasha* was found to be  $5.23 \pm 0.04\%$  equivalent to Gallic acid while in the old sample  $3.75 \pm 0.02\%$ . This study also compared the fibre content, vitamin C, total reducing sugar contents and Hydroxymethyl furfural content in the new and old samples of *Chyawanaprasha* and the results show that new sample contain higher values of fibre, vitamin C and low values of total reducing sugar and HMF contents. These conclusions prove that newly prepared *Chyawanaprasha* is better than the old samples<sup>20</sup>.

#### **CLINICAL IMPORTANCE OF CHYAWANAPRASHA**

It has been well reported that *Chyawanaprasha* consist of various active and major phytochemicals which act synergistically and are responsible for the therapeutic activity of the product<sup>21</sup>. The main and base component of *Chyawanaprasha* is *Amalaki* (Indian gooseberry, *Emblica officinalis* Gaertn. (*Phyllanthus emblica*, *Emblica arborea*, *Cicca emblica*), *dhatriphala*, *amritaphala*, *amalaki*). This fruit is sour, astringent,



bitter, acrid, sweet, cooling, anodyne, ophthalmic, carminative, digestive, laxative, aphrodisiac, rejuvenating, diuretic, antipyretic and tonic. *Amalaki* is also useful in vitiated conditions of *Tridosha*, diabetes, cough, asthma, bronchitis, ophthalmopathy, dyspepsia, colic, flatulence, hyperacidity, peptic ulcer, erysipelas, skin diseases, leprosy, haematogenesis, inflammations, anaemia, emaciation, hepatopathy, jaundice, strangury, diarrhoea, dysentery, haemorrhage, leucorrhoea, menorrhagia, cardiac disorders, intermittent fevers and graying of hair<sup>22</sup>. Experiments conducted with the fruit of *Amalaki* have been shown to possess antioxidant (Bhatt *Acharya et.al*, 1999), adaptogenic (Rege *et.al.* 1999), hepatoprotective (Jeena *et.al.*, 1999; Scartezzini and Speroni, 2000; Sultana *et.al*, 2008), anti-tumour activities (Jose *et.al.* 2001; Jeena *et.al.* 2001). Along with all these properties of fruit *Amalaki* researchers have also stated that it has anti bacterial as well as anti HIV properties (Eldeen *et.al.* 2010). Both *Amalaki* as well as ascorbic acid are considered to have significant effect on memory enhancement and also they possess potent antioxidant activity<sup>23</sup>. *Chyawanaprasha* is revered by many *Ayurvedic* scholars for its benefits on respiratory system. Liquorice, Cardamom, long Pepper, Bay leaves are commonly

used to alleviate cough and asthmatic breathing. The rich complex formulation improves the immunity of the body thereby also helping to prevent common cold and cough. This formulation also helps relieving the stress and has calming effect on the nervous system due to herbs like *Ashwagandha*, *Bacopa* and *Asparagus* due to which it also improves concentration and memory<sup>24</sup>. Studies have also been made to investigate its benefits in smokers with the results showing that it not only subsides coughing, increases appetite and weight gain but also reduces genetic damage in such people<sup>25</sup>.

## DISCUSSION AND CONCLUSION

The review of all the research work done over *Chyawanaprasha* shows “this is no hyperbola to call this formulation a ‘*Rasayana*’ or panacea”. Its single ingredient can fight many diseases and infections. ‘*Amalaki*’ the base component of the formulation is itself is useful in management of so many diseases and disorders. As the studies showed that *Chyawanaprasha* acts as an anti-oxidant, anti-amnesic, respiratory tonic, rejuvenating, anti pyretic, laxative as well as diuretic. So it can be used in managing geriatric problems. In old ages a person not



only suffers due to general debility of body but also a mental trauma of being unable to do households makes the person feel besieged and dejected. This condition worsens the situation. In order to confiscate these kinds of stress and symptoms, one should include *Chyawanaprasha* in his/her remedial plans. *Chyawanaprasha* also improves the life quality in drug abused and other stressed up individuals that means it is certainly useful in improving life style of the individual. Also a person can live longer and healthily with the use of this well proven medicine. Hence we can conclude that *Chyawanaprasha* is a clinically proven magic potion to acquire wellness and endurance.



## REFERENCES

1. Kumar A, Kaur P, Rinwa P (2012). Comparative study of various marketed brands of Indian *Chyawanprasha* for their anti anxiety and anti oxidant potential. Int. J Pharm. Res. Bio-Sci., 1(4), 296-310.
2. Parle M, Bansal N(2010). Anti amnesic Activity of an *Ayurvedic* Formulation *Chyawanprasha* in mice. eCAM, 1-10.
3. Bhatt Acharya SK, Bhatt Acharya A, Sairam K, Ghosal S(2002). Effect of Bioactive tannoid Principles of *Emblica officinalis* on ischemia reperfusion induced oxidative stress in rat heart. Phytomedicine, 9, 171-174.
4. Department of AYUSH, Government of India (2007). Anonymous:*Ayurvedic Pharmacopeia of India Part- II (Formulation) (Vol.1).*, 1<sup>st</sup> edition,13-16.
5. Shastri SN (2007). *Charaka Samhita*. Chaukhambha Bharti Academy, Varanasi,16-17.
6. Shrivastava S (2011). *Sharangdhara Samhita*. Chaukhambha Orientalia, Varanasi, 209-11.
7. Ojha JK, Khanna NN, Bajpay HS, Sharma NA (2002). Clinical study on Chyawanaprasha as an adjuvant in the treatment of pulmonary tuberculosis. J Res Ind Med, 10:11-14.
8. Bhatt Acharya SK, Bhatt Acharya A, Sairam K, Ghosal S(2002). Effect of Bioactive tannoid Principles of *Emblica officinalis* on ischemia reperfusion induced oxidative stress in rat heart. Phytomedicine, 9, 171-174.
9. Singh VK, Pala bag S, Singh NK. Comparative evaluation of furfural in branded and local honey sample by UV spectroscopy. Int J Pharm Sci Res 2012;2(6);95-96.
10. Borde VU, Pangrikar PP, Tekale SU (2011). Gallic Acid in *Ayurvedic* Herbs and formulations. RRST,3(7), 51-54.
11. Johnson JR, Braddock RJ, Chen CS (1995). Kinetics of ascorbic acid loss and nonenzymatic browning in orange juice serum: Experimental rate constants. J. Food Sci., 60(3), 502-05.
12. Soloman O, Svanberg U, Sahlstrom A (1995). Effect of Oxygen and fluorescent light on the quality of orange juice during storage at 8<sup>0</sup>C. Food Chem., 53, 363-68.
13. Eskin NAM. Biochemistry of food processing: Browning reactions in foods (1990). Biochemistry of foods, London Academic Press, 2<sup>nd</sup> ed., 240-95
14. Huelin FE, Coggiola IM, Sidhu GS, Kennet BH (1971). The anaerobic decomposition of ascorbic acid in the pH range of foods and in more acid solutions. Journal of Science of Food and Agricultural, 22, 540-42.



15. Soloman O, Svanberg U, Sahlstrom A (1995). Effect of Oxygen and fluorescent light on the quality of orange juice during storage at 8<sup>0</sup>C. Food Chem., 53, 363-68.
16. Eskin NAM. Biochemistry of food processing: Browning reactions in foods (1990). Biochemistry of foods, London Academic Press, 2<sup>nd</sup> ed., 240-95
17. Soloman O, Svanberg U, Sahlstrom A (1995). Effect of Oxygen and fluorescent light on the quality of orange juice during storage at 8<sup>0</sup>C. Food Chem., 53, 363-68.
18. Talari S, Sampath A, Sujatha K and Nanna RS (2013). Antibacterial Activity of Stem Bark of *Oroxylum indicum* an Endangered ethnomedicinal Forest Tree. IOSR J Pharm and Bio Sci., 7(1), 24-28.
19. Chunekar KC (2002). Bhav Prakash Nighantu. Chaukhambha bharti Academy, Varanasi, 788.
20. Ghosh A, Laloo D, Singh NK. Estimation and chemical standardization of new and old sample of *Chyawanprasha*. Int J Pharm Sci, 5(3), 801-804.
21. Ghosh A, Laloo D, Singh NK. Estimation and chemical standardization of new and old sample of *Chyawanprasha*. Int J Pharm Sci, 5(3), 801-804.
22. Ramakrishna V, Gopi S and Setty OH. Indian gooseberry (*phyllanthus emblica* L.): Phytochemistry, Pharmacology and Therapeutics. Medicinal plants: Phytochemistry, Pharmacology and Therapeutics, 2, 19-40.
23. Parle M, Dhingra D (2003). Ascorbic acid: A Promosing Memory Enhancer in Mice. J Pharmacol Sci., 93(2), 129-35.
24. Kumar A, Rinwa P, Kaur P (2012). *Chyawanprasha: A Wonder Indian Rasayan from Ayurveda to Modern Age*. Earth Journals, 1(2), 1-8.
- Yadav JS, Thakur S and Chadha P. (2003). *Chyawanprasha Awaleha: A Genoprotective Agent for Bidi Smokers*. Int J Hum Genet, 3(1), 33-38.