

### An International Journal of Research in AYUSH and Allied Systems

**Research Article** 

### A CRITICAL APPRAISAL ON AYURVEDAONE SWARNAPRASHANA

### Manoj Kumar Samantaray<sup>1</sup>, Anjali Asok<sup>2\*</sup>

<sup>1</sup>Product Head, \*<sup>2</sup>Product Coordinator, R&D Department, Ayurvedaone Pvt Ltd, Yeshwanthpur Industrial Suburb, Yeswanthpur, Bengaluru, Karnataka, India.

Article info Article History: Received: 15-01-2023 Revised: 04-02-2023 Accepted: 19-02-2023

### **KEYWORDS**:

Swarnaprashana, Lehana, Jatakarma Samskara.

# ABSTRACT

The administration of processed gold to children is a unique method described in Ayurveda as "*Swarnaprashana*" by *Acharya Kashyapa* thousands of years ago. He clearly discussed the administration of *Swarna* (gold) in children for the benefits of boosting cognition, digestion and metabolism, physical strength, immunity, complexion, fertility, and life span. There are numerous gold formulations and even herbal medications stated by several Acharya for long-term use in children. *Swarnaprashana* in children is primarily associated with two Ayurvedic contexts: *Lehana* (supplement) and *Jatakarma Samskara* (newborn care).

This review is an attempt to objectively assess the Ayurvedaone *Swarnaprashana* with available data. The mode of administration, and advantages prescribed by *Susrutha Samhita* are covered below, along with information from associated scientific investigations. According to this assessment, the benefits of *Swarnaprashana* can be obtained on a variety of levels, including as a general health promoter and specifically for improving intelligence, digestion, metabolism, immunity, physical strength, or skin health. For internal administration, Ayurveda recommends only purified and treated gold.

### **INTRODUCTION**

Metals and minerals have been used by humans for thousands of years. Gold has been designated as the most valuable metal, and it has been used to create sculptures of Gods, decorations, coins, and other items all over the world. It is one of the oldest metals, and it is even used for prevention and treatment. In terms of its early knowledge among Indians, the term *Hiranya* (synonym for *Swarna*) appears in Vedic literature during the prehistoric period<sup>[1]</sup>.

Ayurveda includes many references to gold referring to its therapeutic powers and uses in various situations. Gold is defined as one of the *Sapta Loha*<sup>[2]</sup> (seven metals). It is classified as *Shuddha Loha*<sup>[3]</sup> (pure metal), which is said to have both preventative and defensive properties. Because of its *Rasayana*<sup>[4]</sup> (rejuvenator) and *Vajikarana*<sup>[4]</sup> (aphrodisiac)

Access this article online					
Quick Response Code					
	https://doi.org/10.47070/ayushdhara.v10i1.1160				
	PublishedbyMahadevPublications(Regd.)publicationlicensedunder a Creative CommonsAttribution-NonCommercial-ShareAlike4.0International (CC BY-NC-SA 4.0)				

characteristics, gold is recommended for internal use even before conception in order to have a healthy baby. It is utilised in Pumsavana Karma after conception <sup>[5]</sup> (procedure done to get the desired sex of the baby and for the proper intra-uterine growth and development of the fetus). Gold is said to have an function after important birth in Lehana<sup>[6]</sup> (supplementary feeding) and Jatakarma Samskara <sup>[6,7,8]</sup>. As the infant grows, gold should be administered alone or in combination with several herbal remedies to improve Agni (digestive capacity and metabolism), Bala (physical strength and immunity), Medha (intellect). Varna (colour and complexion). Avu (lifespan), and so on. Gold is such a noble metal that has significant effects on the human body from conception to death.

Swarnaprashana samskara is one of the most important Ayurvedic rituals for children. It is the procedure through which purified gold ash is administered orally to children along with fortified *Ghrita* prepared with herbs and honey. It improves children's immunity, stamina, physical and mental well-being. Gold is recognised as an auspicious metal from many years ago, whereas Ayurveda has unique way of treatment to treat chronic disease and keep the healthy condition by preventing the infection and increasing the immunity. *Swarnaprashana samskara* acts as a natural immunisation, assisting youngsters in maintaining a healthy and disease-free life span.

### METHOD

A methodical collection of data from classical text *Sushrutha Samhitha*<sup>[10]</sup> as well as related pharmaco-clinical research articles and dissertation works have been collected using PubMed and manual search of bibliographies as the sources.

*Lehana* displays the administration of numerous herbal medications, ghee preparations, and gold alone as supplementary meals, with specific indications. *Swarnaprashana* is a word coined by *Acharya Kashyapa* for gold administration. This unique technique has been given, in which gold should be triturated with water, honey, and ghee on a clean stone facing east and licked <sup>[11]</sup>. *Swarnaprashana* is said to have the following specific benefits:<sup>[6]</sup>

- *Medha Agni Bala Vardhanam* (improvement of intellect, digestion, metabolism, immunity, and physical strength)
- Ayushyam (promoting lifespan)
- Mangalam (auspicious)
- Punyam (righteous)
- Vrushyam (aphrodisiac)
- *Varnyam* (enhancement of color and complexion)
- *Grahapaham* (protection from evil spirits and microorganisms).

The following are the various benefits of *Swarnaprashana* based on the length of administration:

At one month, the kid will be *Parama Medhavi* (very intelligent) and *Vyadhibhir Na Cha Drusyate* (will not be affected by any disease). After 6 months, the infant will be named *Srutadhara* (will be able to remember the things, which are just heard once) <sup>[6]</sup>. All of the above benefits indicate the augmentation of all favourable aspects essential for appropriate child growth and development, which is thought to be quick during *Shaishavavastha* (infancy).

In *Jatakarma Samskara*, Acharya Sushruta mentions administering *Swarna* combined with honey and ghee as a single dose at birth for newborn care. He

said that there would be insufficient secretion of breast milk for the first four days following delivery, and that such action are necessary to help the newborn in terms of preventive and nutritional elements.<sup>[7]</sup>

Acharya Vagbhata as part of *Jatakarma samskara*, recommends giving a combination of herbs with gold in order to improve *Medha* (intellect) and immunity in children. <sup>[8,9]</sup>

There is no set day or time for administering *Swarnaprashana*. While preparing *Swarnaprashana*, *Acharya Kashyapa* specifies that one should face east. *Acharya Susrutha* and *Charaka*, respectively, discuss *Swarna* on *Pushya Nakshatra* day (a star in Hindu calendar) in the context of *Rasayana* <sup>[4]</sup> and *Pumsavana Karma*. The present widespread practise of only doing *Swarnaprashana* on *Pushya Nakshatra* days may be owing to the notion that it is an auspicious start to take any treatment due to its nourishing influence<sup>[11]</sup>. However, without correct dosage fixation, such administration once a month in all age groups of children may not provide any effect as indicated in classics. Scientific research in this area may be useful in making this practise clear.

Ayurvedaone Swarnaprashana is designed as per the reference from Sushrutha Samhita<sup>[10]</sup>. Acharya Sushrutha has enumerated 4 combinations of Swarnaprashana, with different Medhya herbs. He has enlisted the herbs like Kushta (Saussurea lappa), Vacha (Acorus calamus), Matshyakasha (Bacopa monnieri), Shankapushpi (Convolvulus prostratus), Shweta durva (Cynodon dactylon), Kaidarya (Murraya koenigii) etc. to use with Swarna, Madhu and Ghrita.

Ayurvedaone *Swarnaprashana* was curated considering the Ayurvedic principles and adoption the paediatric dose fixation formulae like Fried's Rule and Young's formula. Fried's rule<sup>[12]</sup> were used to calculate the dosage for infants younger than one year of age. Young's rule<sup>[13]</sup> were utilised to calculate the dosage for children 2 years of age or older. As per the requirement of children from different age categories and safety protocol, the formulation was divided into 4 groups – *Swarnaprashana 1 (SP 1), Swarnaprashana 2 (SP 2), Swarnaprashana 3 (SP 3), Swarnaprashana 4 (SP 4)* etc

Table 1: Contents of Swarnaprashana

AYUSHDHARA, 2023;10(1):58-62						
	Ingredients	Botanical name	Quantity	Disease conditions		
Swarnaprashana	Durva	Cynodon dactylon	1mg	Anti-viral, anti-allergic, anti- helminthic		
ATTRACTOR LANDARTON	Kaidarya	Murraya koenigii	1mg	Anti-poisonous, skin diseases, appetizer		
Swarnaprashana 1 (SP 1)	Swarnabhasma	Incinerated gold	1mg	Immunomodulator, helps in growth and development, improves physical strength		
Summananana Autorean tuninitarina	Durva	Cynodon dactylon	3mg	Antiviral, anti-allergic, anti- helminthic		
	Kaidarya	Murraya koenigii	3mg	Anti-poisonous, skin diseases, appetizer		
Swarnaprashana 2 (SP 2)	Swarnabhasma	Incinerated gold	3mg	Immunomodulator, helps in growth and development, improves physical strength		
<b>Swarnaprashana 3</b> (SP 3)	Brahmi	Bacopa monnieri	6mg	Brain tonic, treat cognitive disorders, improve memory, focus, and concentration		
	Shankapushpi	Convolvulus prostratus	6mg	Improves concentration and attention span, helpful in treating ADHD (Attention Deficit Hyperactivity disorder)		
	Swarnabhasma	Incinerated gold	6mg	Immunomodulator, helps in growth and development, improves physical strength		
ADDREDADRE Swarmaprashana ATAXWAG IMUK VERTICA UNITARIA UNITARIA	Kushta	Sau <mark>ss</mark> urea lappa	8mg	Helpful in skin diseases, respiratory disorders		
	Vacha	Acorus calamus	8mg	Nootropic, treats neurological conditions, nervine tonic, stimulates digestion		
Swarnaprashana 4 (SP 4)	Swarnabhasma	Incinerated gold	8mg	Immunomodulator, helps in growth and development, improves physical strength		

#### - -

## **Table 2: Physicochemical Analysis**

S.No.	Testing Parameters	Results			
		SP 1	SP 2	SP 3	SP 4
1	рН	5.53	5.03	4.56	5.22
2	Loss on Drying (% by mass)	0.675	0.54	0.59	0.69
3	Total ash (% by mass)	4.038	4.1	3.09	3.59
4	Acid Insoluble ash (% by mass)	3.490	2.99	3.77	3.4
5	Alcohol Soluble extractive (% by mass)	4.722	4.062	3.559	4.12
6	Water Soluble extractive (% by mass)	93.799	92.33	92.67	93.89
7	Bulk density (g/ml)	0.611	0.594	0.672	0.690
8	Tapped density (g/ml)	0.713	0.711	0.702	0.696
9	Foreign matter (%)	0.001	0.003	0.002	0.001
10	Heavy Metal Analysis				
	Lead	< 0.01	< 0.01	< 0.01	< 0.01
	Cadmium	< 0.01	< 0.01	< 0.01	< 0.01
	Arsenic	< 0.01	< 0.01	< 0.01	< 0.01
	Mercury	< 0.01	< 0.01	< 0.01	<0.01

Manoj Kumar Samantaray, Anjali Asok. A Critical Appraisal on Ayurvedaone Swarnaprashana

Sl No.	Testing Parameters	Results				Limit
		SP 1	SP 2	SP 3	SP 4	
1	Total Aerobic Microbial Count	6.7 X 10 <sup>3</sup>	5.8 X 10 <sup>3</sup>	5.4 X 10 <sup>3</sup>	6.3 X 10 <sup>3</sup>	<1,00,000
	(TAMC) Cfu/gm/ml					
2	Total Yeast & Mould count	120	133	105	115	<1,000
	(TYMC) Cfu/gm/ml					
3	Pathogen Detection					
а	Escherichia coli/gm	Absent	Absent	Absent	Absent	
b	Staphylococcus aureus/gm	Absent	Absent	Absent	Absent	
С	Salmonella sp/gm	Absent	Absent	Absent	Absent	
d	Pseudomonas aeruginosa/gm	Absent	Absent	Absent	Absent	

### DISCUSSION

*Swarnaprashana* can be given to all children because it affects nutrition, metabolism, growth and development, physical strength, and immunity. It is the only type of gold preparation defined with particular benefits based on administration time. Even if *Lehana* is contraindicated on a daily basis, *Swarnaprashana* alone can be sustained for 1 to 6 months to reap the special benefits in children, according to *Acharya*. Future research investigations could restore the aforementioned benefits of *Swarnaprashana* in terms of duration.

*Swarnaprashana* advantages can be obtained from infancy to adulthood through a variety of behaviours influencing a child's growth and development. The age at which it can be given should be determined by the predicted effect in the body. Considering all the above listed references it can be said that the activity of this noble metal might be at numerous levels like as a general health promoter or in specific to increase of IQ, metabolism, immunity, physical strength, fertility, complexion, etc.

**Mode of action of Gold Ash**- It works through a scavenging effect. *Swarna bhasma* suppresses a variety of cell-mediated immune responses to mitogens and antigens, immunomodulatory properties of gold compounds.<sup>[14]</sup> It improves memory, therefore when provided in extremely low doses for a certain period of time, it is known to augment memory power as well as immunity. Animal studies on pure gold ash revealed that a dose of *Swarna bhasma* in of 12.5 to 50mg/kg of body weight on mice weight had a stimulatory impact on peritoneal macrophages, which may be useful in the fight against infection. The exposure of the metal to cells in tiny emulsified forms is thought to have stimulated macrophages.

### Mode of Action of Medhya Drugs

*Brahmi (Bacopa monnieri*)– Brahmine, herpestine, alanine, hentri-acontane, octacosane, and monnierin are all found in *Brahmi*. These chemical extracts stimulate the central nervous system and promote hypothalamic function<sup>[15]</sup>. Antioxidants help protect the body against cell damage caused due to free radicals, which is linked with chronic conditions like heart disease, diabetes and even cancer. Bacosides. the active ingredient in Brahmi can neutralise free radicals and prevent fat molecules from reacting with the free radicals<sup>[16]</sup>. Vacha (Acorus calamus)- It contains major chemical elements such as acolamone, acorenone, acromone, acorone, calacone, calamene, calarene, eugenol, telekin, and others. Vacha is very effective as a nervine tonic. It is a highly robust brain tonic, because it displays results in a very short time. Because of its neuroprotective properties, Vacha aids with memory enhancement. The antioxidants included in Vacha fight free radicals, which can harm brain (neuronal) cells. It preserves cells and reduces inflammation, which improves behavioural changes, memory, and mental function<sup>[17]</sup>. Kushta (Saussurea *lappa*)- chemicals in costus root appear to kill worms (nematodes). Several studies believe that the compounds in costus oil exhibit anti-inflammatory, hepatoprotective, and immunomodulatory activities<sup>[18]</sup>. Durva (Cynodon dactylon)- Durva has neuroprotective role by reducing the oxidative stress and it also checks on cognitive dysfunction. Shankhapushpi (Convolvulus prostratus), a well-known nootropic has potent antioxidants and flavonoids that boosts a child's memory ability, focus, concentration, tranquilly, and alertness. As a brain tonic and stimulant, Shankhpushpi improves memory, reasoning, problem solving, and other cognitive capacities. Kaidarva also called 'Surabhini-nimba'. helps to promotes intelligence, treats learning disabilities in children. They protect the brain from oxidative damage and neurodegenerative diseases as well as improving memory.

In a small clinical trial conducted on sample size near to 30 (one to two years) in our retail outlet -Ayurcentral, *Swarnaprashana* has showcased promising result in enhancing the process of growth and development. For children in age group between 3 to 11 years, we also observed less recurrence of infections, allergic conditions. Parents also reported an improvement in their cognitive skills and retaining capacity. It can be given to children of any age as a general tonic. Also, can be used as an immunomodulator in children as young as one year old, as this is regarded the most vulnerable time for infections due to an underdeveloped immune system.

### CONCLUSION

*Swarnaprashana* is the administration of pure gold alone or different kinds of gold in combination with various herbs that improve immunity. The form of gold chosen should be based on features such as greater bioavailability, no adverse responses, and ease of preparation and administration, all of which should be standardised by scientific investigations. Improper dosage, duration, and condition will undoubtedly have negative consequences on the body, particularly in youngsters. Ayurvedaone *Swarnaprashana* has been giving encouraging results in improving immunity of children, recurrent health issues, learning abilities and in achieving delayed milestones.

### REFERENCES

- Pandey G. 1<sup>st</sup> ed. Delhi: Sri Satguru Publications; 1997. Traditional Medicine in South-East Asia and Indian Medical Science; pp. 40–1.
- Kashinath Shastri., editor. 11<sup>th</sup> ed. New Delhi: Motilal Banarasidas; 2009. Sadananda Sharma, Rasataranagini, 15<sup>th</sup> Taranga, 2-3, 14, 27; pp. 361– 67.
- 3. Kulkarni DA, editor. New Delhi: Meharchand Lachhmandas Publications; 1998. Vagbhata, Rasaratna Samuchaya, Vol. 1, 5/1, 11, 18; pp. 13–6.
- Dalhana, Commentator. Susrutha Samhita, Chikitsa Sthana, Kshudraroga Chikitsa, Varanasi: Chaukhamba Orientalia; 2005. 28/10.21, reprint ed; pp. 501–2.
- 5. Chakrapanidatta, Commentator. Charaka Samhita, Sharira Sthana, Jatisutriya Adhyaya, Varanasi: Chaukhambha Chaukhambha Sanskrit Sansthan; 2004. 8/19; p. 343.
- Vridha Jivaka, Kashyapa Samhita, Sutra Sthana, Leha Adhyaya. In: 10<sup>th</sup> ed. Shri Satyapal Bhishagacharya., editor. Chaukhambha Sanskrit Sansthan: Varanasi; 2005. pp. 4–5.
- Dalhana, Commentator. Susrutha Samhita, Varanasi: Chaukhamba Orientalia; 2005. Sharira Sthana 10/13-15, 68-70, reprint ed; pp. 388–95.

### Cite this article as:

Manoj Kumar Samantaray, Anjali Asok. A Critical Appraisal on Ayurvedaone Swarnaprashana. AYUSHDHARA, 2023;10(1):58-62. https://doi.org/10.47070/ayushdhara.v10i1.1160 Source of support: Nil, Conflict of interest: None Declared

- Vagbhata, Ashtanga Hridaya, Uttara Sthana, Balopcharniya Adhyaya. 1/9, 47-48. In: Hari Shastri Paradkar., editor. 9<sup>th</sup> ed. Varanasi: Chaukhambha Orientalia; 2002. pp. 778–781.
- Vagbhata, Ashtanga Samgraha, Uttara Tantra, Rasayanavidhi Adhyaya. In: 49/29-34. 1<sup>st</sup> ed. Shivprasad Sharma., editor. Varanasi: Chaukhambha Sanskrit Series Office; 2006. p. 914.
- 10. Dalhana commentator. Sushruta Samhita, Chaukhambha Orientalia: Varanasi; 2005. Sharira Sthana, Garbhinivyakarana Adhyaya, 10/68-70, reprint ed; p. 395.
- 11. Amarasimha, Amarakosa, Prathama Kanda, Digvarga. In: *1/3/319.* Shastri HG, editor. Varanasi: Chaukhambha Sanskrit Sansthan; 2008. p. 48.
- Del Moral Sanchez JM, Gonzalez-Alvarez I, Cerda-Revert A, Gonzalez-Alvarez M, Navarro-Ruiz A, Amidon GL, Bermejo M. Biopharmaceutical optimization in neglected diseases for paediatric patients by applying the provisional paediatric biopharmaceutical classification system. Br J Clin Pharmacol. 2018 Oct; 84(10): 2231-2241. doi: 10.1111/bcp.13650. Epub 2018 Jul 17. PMID: 29846973; PMCID: PMC6138508.
- 13. James, G.D. (1978). Young's rule. In: The Representation Theory of the Symmetric Groups. Lecture Notes in Mathematics, vol 682. Springer, Berlin, Heidelberg. https://doi.org/10.1007/BFb0067722
- 14. Dr. J.L.N.Sastry, Dravyaguna Vijnana, Chaukhambha orientelia, Varanasi, Edition, 2016, Vol II, C.K. Hashimoto et.al. 1992, page14.
- 15. Ibid, Vol II, Dr. J. L. N. Sastry, Dravyaguna vijnana, Vol II, (Plohmann et al 1994), page no 249
- Chaudhari KS, Tiwari NR, Tiwari RR, Sharma RS. Neurocognitive Effect of Nootropic Drug Brahmi (Bacopa monnieri) in Alzheimer's Disease. Ann Neurosci. 2017 May; 24(2): 111-122. doi: 10.1159/000475900. Epub 2017 May 12. PMID: 28588366; PMCID: PMC5448442.
- 17. Ibid, Vol II, Dr. J. L. N. Sastry, Dravyaguna vijnana, Vol II (Chopra et al. 1957) page no. 548

\*Address for correspondence Dr.Anjali Asok Product Coordinator, R&D Department, Ayurvedaone Pvt Ltd., No 93, 23, First Floor, Yeshwanthpur Industrial Suburb, Yeswanthpur, Bengaluru, Karnataka. Ph: +91 7829335077 Email: dranjali@ayurcentral.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.

AYUSHDHARA | January-February 2023 | Vol 10 | Issue 1