

UNDERSTANDING THE SIGNIFICANCE OF *SHODHANA* (PURIFICATION) OF *GUGGULU*

Dr. Rohit Parmar^{*1}, Dr. Abhishek² and Dr. Vaibhav Kulkarani³

¹P.G. Scholar Department of Rsbk, Government Ayurvedic College Patiala, Punjab.

²Lecturer Department of Rsbk, Government Ayurvedic College Patiala, Punjab.

³Reader Department of Shalya Tantra, Government Ayurvedic College Patiala, Punjab.

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***Corresponding Author**

Dr. Rohit Parmar

P.G. Scholar Department of
Rsbk, Government
Ayurvedic College Patiala,
Punjab.

ABSTRACT

Guggulu, a resinous extract from the *Commiphora mukul* tree, has been a cornerstone in traditional Ayurvedic medicine for centuries. Revered for its therapeutic properties, *guggulu* is widely used in various formulations to treat a spectrum of ailments, ranging from arthritis to obesity. However, in its raw form, *guggulu* can contain impurities and toxins that may compromise its efficacy and safety. This is where the process of *shodhana*, or purification, plays a vital role.

KEYWORDS: However, in its raw form, *guggulu* can contain impurities and toxins that may compromise its efficacy and safety.

INTRODUCTION

In *Ayurveda*, the ancient system of medicine from India, the concept of *Shodhana* (purification) holds paramount importance in the preparation of medicinal substances. *Shodhana* is a meticulous process aimed at detoxifying and enhancing the therapeutic efficacy of various raw materials, including herbs, metals, and minerals. This process ensures that the substances used in *Ayurvedic* formulations are not only safe for consumption but also potent in their healing properties. The methods of *Shodhana*, deeply rooted in classical texts, involve various techniques such as washing, boiling, steaming, and exposure to sunlight. By adhering to these traditional purification methods, *Ayurvedic* practitioners maintain the integrity of the medicine, ensuring that it aligns with the holistic principles of *Ayurveda*, which emphasize balance and harmony within the body. The comprehensive approach to *Shodhana* underscores *Ayurveda's* commitment to health and wellness.

Guggulu, a resin derived from the *Commiphora mukul* tree, is a revered substance in *Ayurvedic* medicine, known for its potent anti-inflammatory and lipid-lowering properties.^[1] However, to harness its full therapeutic potential and ensure its safety, the process of *Shodhana* (purification) is essential. *Shodhana* of *Guggulu* involves a series of traditional purification methods aimed at eliminating impurities and enhancing its medicinal qualities. These methods, meticulously described in classical *Ayurvedic* texts, typically include processes such as triturating the raw resin with herbal decoctions, boiling, and filtering.^[2] Through *Shodhana*, the bioavailability and efficacy of *Guggulu* are significantly improved, making it a more effective component in various *Ayurvedic* formulations. This purification process not only detoxifies the raw material but also aligns with *Ayurveda's* holistic approach to health, which prioritizes balance and the elimination of toxins. By adhering to these time-honored techniques, practitioners ensure that *Guggulu* is both safe for consumption and optimal in its healing capabilities, embodying the essence of *Ayurvedic* wisdom and its commitment to natural wellness.

NEED OF GUGGULU SHODHANA

Given that *guggulu* is a plant exudate, which have dust, dry leaves, and other foreign materials as sources of impurity.^[2] The plant is safer and more useful to use after purification. Studies have also shown that refined *Guggulu* has less toxicity.

Guggul shodhana methods

Through review of *Ayurvedic* literature revealed four methods of *Guggul Shodhana*. All these procedures are listed in Table: 1

Table 1: Different *Guggul shodhana* methods in various classics.

Sr. no.	Procedure	Step wise description	References
1.	Dissolve in liquid and filtering	Dissolve <i>Guggul</i> in liquid media by heating. After total dissolution, filter through cloth (straining) Dry it in sun Add <i>Ghee</i> to the dried drug & prepare a soft mass.	Harita Samhita, Kalpasthana-5/9 Rasa Ratnakara, Rasakhanda, Upadesh-10/78 Rasendra Sara Sangraha-1/402 Gadagraha, Rasayana, Guggulkalpa/253 Bruhat Nighantu Ratnakara, Guna Dosha Prakarana/73 Rasajalanidhi, Trutiya

			khanda/8, p.359 Brihata Rasa Raj Sundar, Madhyam khanda, Shilajita prakarana, Bharata BhaishajyaRatnakara 1322
2.	Swedana (boiling in liquid)	Tie the <i>Guggul</i> in a cloth and make a <i>Pottali</i> Boil the <i>Pottali</i> by swinging it in specific media till maximum portion of <i>Guggul</i> enters into liquid. Wait for it to cool After cooling, collect the sediment part from the bottom of the vessel This sediment part is - <i>Shuddha Guggul</i> .	Ras Tarangini, 24/579-580, Rasajalanidhi, Trutiya khanda, 8,p.359 Brihata Rasa Raj sundar, madhyamkhanda, Shilajita Prakarana,
3.	Swedana and frying in Ghee	Take Small Pieces of <i>Guggul</i> Fry it in Cow's <i>ghee</i> (<i>Goghrita</i>) Dissolve it in specified liquid in <i>indolayantra</i> . Take out <i>Guggul</i> and dry it	Anand kanda, 15th Ullasa/307
4.	Dipping in <i>Ghee</i>	Immerse <i>Guggul</i> in <i>Ghee</i> for 7 nights.	Dipika tika on Sharangdhara Samhita, Madhyama Khanda 7/70-81

Media used for *Guggul shodhana*

Total fourteen media are found in context of *Guggul Shodhana* enlisted in Table 2.

Some other references of *Guggul* formulation which includes specific media for particular formulation are enlisted in Table: 3.

Table 2: Different media used for *Guggul shodhana*.

Sr. no.	Media	References
1	<i>Guduchi Kwatha</i>	Rasendra Sara Sangraha 1/384 Ayurveda Sara Sangraha P. 237 Rasajala Nidhi, trutiya khanda, 8,p.359
2	<i>Triphala Kwatha</i>	Rasendra Sara Sangraha 1/384 Ayurveda Sara Sangraha P. 237 RasajalaNidhi trutiya khanda, 8,p.359 Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
3	<i>Godugdha</i>	Ras Tarangini – 24/579-580 RasajalaNidhi trutiya khanda, 8,p.359 Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
4	<i>Pancha Tikta Kwatha</i>	Ananda Kanda Prathamollasa 322-323
5	<i>Dasha Moola Kwatha</i>	Ras Ratnakar Upa 10 Rasajala Nidhi, trutiya khanda, 8,p.359

6	<i>Nimba Patra Kwatha With Haridra Churna</i>	Ayurvedic Pharmacopeia of India, First Edition P54
7	<i>Gomutra</i>	Vaidya Yoga Ratnavali Brihat RasarajSundara, Madhyam Khanda, Shilajatu Prakarana Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
8	<i>Vasa Patra Swarasa</i>	Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
9	<i>Vasa Patra Kwatha</i>	Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
10	<i>Nirgundi Patra Swaras With Haridra Churna</i>	Ayurvedic Pharmacopeia of India, First Edition 2008, Part 2 Vol 1, P94
11	Water	Bheshajya Samhita, Shodhana Prakarana
12	<i>Goghrita</i>	Aanada Kanda,153 Ullasa/305-312 Dipika Tika On Sharangdhara Samhita, Madhyama Khanda 7/70-81
13	<i>Asthishrinkhala Swarasa</i>	Rasayogasagara, (645) Vranantaka Guggul/3115-3119,
14	<i>Vataraktahara Dravya Kwatha</i>	Gudharthadipika Tika On Gudharthadipika Tika, Madhyama Khanda 7/70- 81

Table 3: Specific Media for preparation of different Guggul formulation.

S. no.	Formulation		Media	Indication	Reference	
1	Saptavishatika Guggul		Trikatu etc 24 drugs	Kushtha	Gadanigraha, Prayoga Khanda-4/307-315	
2	Kaishora Guggul		Guduchi + triphala Kwatha	Vatarakta	Gadanigraha, Prayoga Khanda-4/338-347	
3	Triphaladya Guggul		Triphala kwatha	Vatarakta, kushta, shivtra, gulma etc	Gadanigraha, Pra.Kha.4/348-351	
4	Kanshakho Guggul		Triphala kwatha	Ghridhasi	Gadanigraha, Prayoga Khanda-4/352-357	
5	Kanthadika gutika		Guduchi kwatha	Vatarakta	Gadanigraha, Prayoga Khanda-4/379-386	
6	Amrutadi Guggul		Triphala+ Guduchi+punarnava	Vatarakta	Gadanigraha, Kayachikit sa Khanda-20/52	
7	Gokshuradi Guggul		Gokshura kwatha	Mutrakrichcha	Sharangdhara Samhita, Ma.Kha.7/84- 87	
8	Pathyadi Dwitiya	Guggul	Triphala	Vatavyadhi	Bhavaprakasha 24/145-150	
9	Abhayadi Guggul		Abhaya etc 11 drugs	Snayau- mashtiska roga	Bhaishajya 101/18-22	Ratnavali,
10	Amritadi Dwitiya	Guggul	Guduchi + Dashamoola + tripahla + patha etc 6 drugs	Kushtha	Bhaishajya Ratnavali,.54/222-227	

11	<i>Triphaladi Guggul</i>	<i>Triphal+trivrutt+dantimoola+nilini+aragvadha</i>		<i>Urusthambha, gandamala</i>	Gadanigraha, Pra.Kha.4/358-364
12	<i>Nimbadi Guggul</i>	<i>Nimba tvak+patola + vasa + triphala</i>		<i>Shiroroga</i>	Brihat Nighantu Raatnakara, 6 th Part, Shiroroga, Pg.No.-398
13	<i>Mahishakhyo Guggul</i>	<i>Guduchi+triphala</i>		<i>Vatarakta</i>	Brihat Nighantu Raatnakara, 5 th Part, Vatavyadhi, Pg.No. -582
14	<i>Vyadhishardulo Guggul</i>	<i>Triphala +Taila</i>	<i>Sarshapa</i>	<i>Aamavata</i>	Bhaishjya Ratnavali, 29/172-180
15	<i>Shadashiti Guggul</i>	<i>Shat katuka kwatha</i>		<i>Vatavyadhi</i>	Yogaratanakara, Purvardha, Vatavyadhi Pg-529
16	<i>Simhanada Guggul Pratham</i>	<i>Triphala etc 18 drugs</i>		<i>pliha, nadivrana</i>	Yogachintamani, Ma./,7
17	<i>Simhanada Guggul Dwitiya</i>	<i>Triphala kwatha</i>		<i>Aamavata</i>	Brihat Yoga Tarangini, Taranga-93

Clinical and Pharmacological Significance

1. Enhanced Efficacy in Clinical Applications.

- *Shodhana*-treated *guggulu* has shown better clinical outcomes in managing conditions like rheumatoid arthritis, osteoarthritis, and cardiovascular diseases due to its enhanced anti-inflammatory and lipid-lowering properties.^[1]

2. Safety Profile

- Purified *guggulu* exhibits a better safety profile, reducing the incidence of adverse reactions and toxicity, thus making it suitable for long-term use in chronic conditions.

3. Pharmacological Benefits

- Research indicates that *shodhana* enhances the pharmacokinetic properties of *guggulu*, including improved absorption and metabolism, which contribute to its overall therapeutic effectiveness.

DISCUSSION

A common ingredient in many *ayurvedic* medicines is *Guggulu*. Since raw *Guggulu* cannot be utilized directly due to its different harmful effects, purifying *Guggulu* (*shodhana*) is a crucial step in producing formulations that contain *Guggulu*.

The *Harita Samhita*^[3] has the earliest mention of *Guggulu Shodhana*, which involves dissolving *Guggulu* in a certain medium and filtering it to eliminate both chemical and

physical impurities. Later, *Guggulu Shodhana* is mentioned in Charakdutta^[4] as a step in the creation of *Kaishore Guggul vati*.

The Ashtang Hridaya^[5] book is the first to utilize the term *Shuddha Guggulu*, although it omits any explanation of the *Shodhana* procedure.

For *Guggulu Shodhana*, there are a total of four approaches (Table 1). Rastarangini^[6] was the first to explain the *dolayantra* method; nevertheless, reports suggest that this method is inconvenient, produces less, and requires additional liquid medium to keep the *pottali* submerged. Thus, *Guggulu Shodhana* is made commercially using the dissolving process (dissolve in liquid and filter).

The media that is utilized in the *shodhana* process has a critical function in dissolving or eliminating undesirable chemical components. It affects the yield and disintegration time of the manufactured tablets as well. Furthermore, because *Guggulu* absorbs the qualities of the media, its medicinal effects vary according to the medium. Many medias, such as *Godugdha*, *Gomutra*, *Triphala Kwatha*, *Guduchi Kwatha*, and so on, have been described for *Guggul Shodhana*; nevertheless, *Triphala Kwatha* has the greatest number of references. Research indicates that the *Guggulu shodhana* performed by *Triphala Kwatha* yields a higher yield than the *Gomutra shodhana*, and the pills made with the *Gomutra shodhit Guggul* have a shorter disintegration period.^[7]

The change of the chemical contents is partially attributed to the heat treatment of in a specific medium for a specific amount of time.

Most purifying methods for *shodhana* of *Guggulu* describe straining as a step in the process. It can be assumed that the straining procedure will eliminate external pollutants as well as the insoluble (toxic) portion of the aqueous part.

CONCLUSION

The *shodhana* of *Guggulu* is a vital process in *Ayurvedic* medicine, ensuring that the resin is free from impurities and toxic substances while enhancing its therapeutic properties. This purification process not only makes *guggulu* safer and more effective but also standardizes its quality for consistent clinical outcomes. Understanding and implementing *shodhana* is essential for practitioners and researchers in *Ayurveda* to harness the full potential of *Guggulu* in treating various health conditions.

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