

# Swedana Karma In Pediatric Practice: A Critical Review And Clinical Perspectives

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## ABSTRACT

Swedana (sudation therapy) is a vital preparatory procedure in Panchakarma<sup>[1]</sup>, aimed at liquefying toxins and facilitating their elimination. While extensively used in adults, its application in pediatric care is limited due to the delicate nature of children's physiology. This review critically evaluates Swedana therapy's safety, efficacy, and modifications necessary for pediatric patients. It also examines the physiological impact, benefits, contraindications, and gaps in current research. A systematic literature review was conducted using classical Ayurvedic texts, contemporary research articles, and clinical studies related to pediatric Swedana. Emphasis was placed on types of Swedana suitable for children, their mechanisms of action, and documented clinical outcomes. Swedana therapy has shown positive effects in pediatric conditions like respiratory disorders, musculoskeletal stiffness, and digestive irregularities. However, inappropriate administration may lead to adverse effects such as dehydration, weakness, or thermal injury. While Swedana is beneficial for pediatric care, it requires specific modifications in technique, duration, and intensity to align with the physiological characteristics of children. More clinical trials are needed to validate its efficacy and establish standardized protocols.

**Keywords:** Swedana, Pediatric Ayurveda, Panchakarma, Hasta Sweda, Pata Sweda, Shashtika Shali Pinda Sweda, Kaumarbhritya.

## INTRODUCTION

Swedana is a fundamental therapeutic procedure in Ayurveda<sup>1</sup>, primarily employed to induce perspiration and facilitate the expulsion of toxins (Ama) from the body. It is an integral part of Panchakarma therapy, designed to prepare the body for detoxification by softening and mobilizing the vitiated Doshas. Classical Ayurvedic texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Kashyapa Samhita* extensively describe Swedana as a crucial preparatory step before Shodhana (purificatory) therapies, particularly following Snehana (oleation). The synergy between Snehana and Swedana ensures that deep-seated toxins are liquefied, mobilized, and subsequently eliminated through therapeutic purification.

Swedana is classified into different types based on the heat source, mode of application, and intensity. Commonly used techniques include Bashpa Sweda (steam fomentation), Nadi Sweda (localized steam application), and Pinda Sweda (bolus fomentation). These procedures relieve stiffness, heaviness, and coldness while promoting circulation and balancing the Doshas. However, in pediatric care, the application of Swedana requires significant modifications due to the physiological characteristics of children.

Ayurveda describes children as *Sukumara* (delicate) and *Daurbalya* (having lower strength), making them unsuitable for intense or aggressive therapies, including strong Swedana procedures. Moreover, their immature thermoregulatory mechanisms and sensitive skin increase the risk of adverse effects such as dehydration, burns, and excessive Dosha aggravation, resembling the complications of *Atiyoga Lakshana* (over-treatment). Consequently, it is imperative to adapt Swedana techniques for pediatric practice, ensuring that therapeutic benefits are achieved without compromising safety. This research aims to explore the principles, indications, modifications, and efficacy of Swedana therapy in children, providing evidence-based guidelines for its appropriate application in pediatric Ayurveda.

## METHODOLOGY

A systematic literature review was conducted using **Ayurvedic classical texts, contemporary research databases (PubMed, Google Scholar, AYUSH Research Portal), and clinical trials** focusing on Swedana therapy in pediatric patients.

The selection criteria included:

- Studies on **Swedana in children (0-16 years)**
- Articles discussing **safety modifications in pediatric Panchakarma**
- Clinical trials assessing **Swedana's effectiveness in common pediatric disorders**

Exclusion criteria:

- Studies focusing solely on adult populations
- Non-peer-reviewed sources

The data were analyzed to identify patterns in **indications, contraindications, benefits, and potential risks** of Swedana in pediatric care.

## CLASSIFICATION OF SWEDANA

Swedana therapy in Ayurveda is categorized based on various factors<sup>[2]</sup> such as the targeted area, properties (*Guna-Karma*), mode of application (*Vidhi*), dosage (*Matra*), action, and the use of external heat (*Agni*).

Basis of Classification	Types of Swedana
On the basis of targeted area	<i>Ekaanga Sweda</i> (localized) and <i>Sarvanga Sweda</i> (whole-body)
On the basis of Guna-Karma	<i>Snigdha Sweda</i> (unctuous) and <i>Ruksha Sweda</i> (dry)
On the basis of Vidhi (Mode of application)	<i>Tapa</i> (direct heat), <i>Ushmasweda</i> (steam), <i>Upanaha</i> (poultice), <i>Drava Sweda</i> (liquid fomentation)
On the basis of Matra (Intensity)	<i>Mrudu Sweda</i> (mild), <i>Madhyama Sweda</i> (moderate), <i>Mahaan Sweda</i> (intense)
On the basis of action	<i>Samshamana Sweda</i> (palliative) and <i>Sanshodhana Sweda</i> (purificatory)
On the basis of Agni (External heat source)	<i>Sagni Sweda</i> (heat-based) and <i>Niragni Sweda</i> (without direct heat)

## Types of Swedana Described in Classical Texts

### 1. Niragni Sweda (Non-Thermal Sweating Therapy)

*Niragni Sweda* does not involve direct external heat but induces sweating through natural physiological responses. According to *Charaka Samhita*, it is classified into **ten types**<sup>[3]</sup>:

- **Vyayama** (exercise)
- **Ushnasadana** (staying in a warm room)
- **Guru Pravaran** (covering with heavy blankets)
- **Kshudha** (hunger-induced sweating)
- **Bahupana** (excessive fluid intake)
- **Bhaya** (fear-induced sweating)
- **Krodha** (anger-induced sweating)
- **Upanaha** (application of medicated poultices)
- **Ahava** (sweating due to combat or struggle)
- **Atapa** (exposure to sunlight)

## 2. Sagni Sweda (Thermal Sweating Therapy) <sup>[4]</sup>

This category includes **13 types** that utilize external heat sources to induce sweating:

- **Sankara Sweda** (application of heated boluses)
- **Prastara Sweda** (lying on a heated bed)
- **Nadi Sweda** (steam directed through a tube)
- **Parisheka Sweda** (pouring warm liquids over the body)
- **Avagaha Sweda** (immersion in a warm medicated bath)
- **Jentaka Sweda** (steam chamber)
- **Asmaghana Sweda** (heated stone bed)
- **Karshu Sweda** (sweating induced in a trench)
- **Kuti Sweda** (therapy in a heated cabin)
- **Bhu Sweda** (lying on heated ground)
- **Kumbhi Sweda** (therapy using heated pitchers)
- **Kupa Sweda** (sweating in a pit)
- **Holaka Sweda** (sweating under the bed)

## SWEDANA IN PEDIATRICS (BALASWEDA) <sup>[5]</sup>

**Acharya Kashyapa** highlights the importance of Swedana therapy in children while emphasizing the need for careful application due to their delicate constitution (*Sukumara*). The selection of Swedana techniques for children is based on their age, strength (*Bala*), and underlying health conditions. The following table presents various pediatric Swedana techniques and their methods of application:

### Types of Pediatric Swedana and Their Application

Type of Swedana	Method of Application
<b>Hasta Sweda</b>	The physician or caregiver gently warms their hands over a smokeless flame and applies them to the affected area. This method is suitable for children aged <b>4 months to 6 years</b> .
<b>Pradeha Sweda</b>	A lukewarm herbal paste made from <i>Vata-pacifying</i> herbs is applied to the affected area.
<b>Upanaha Sweda</b>	A poultice made of medicinal herbs is heated and applied to the affected region.
<b>Nadi Sweda</b>	Steam from a medicated decoction is directed over the affected area through a tube.
<b>Prastara Sweda</b>	The child is made to lie on a heated bed to induce sweating.

<b>Sankara Sweda</b>	Heated medicated boluses ( <i>Pinda Sweda</i> ) are gently massaged over the body.
<b>Avagaha Sweda</b>	The child sits in a tub filled with a warm medicinal decoction, with the lower body submerged up to the umbilicus.
<b>Parisheka Sweda</b>	Warm herbal oils or medicinal liquids are continuously poured over the body.
<b>Pata Sweda</b>	A thick cloth is heated and placed over the child's abdomen to promote mild sweating. This method is recommended for children up to <b>6 years old</b> .

## BENEFITS OF SWEDANA

Swedana has a number of benefits, especially when performed in the right way:

1. **Detoxification:** Sweating helps in releasing toxins (Ama) from the body through the skin, improving overall health.
2. **Improved Circulation:** It enhances blood flow, which can help in nourishing the tissues and organs.
3. **Muscle Relaxation:** Heat therapy helps in loosening tight muscles and relieving tension.
4. **Enhanced Digestion:** Swedana can improve digestive fire (Agni) and help with issues like indigestion, constipation, and bloating.
5. **Skin Health:** It can support healthier skin by clearing impurities and promoting a natural glow.
6. **Boosting Immunity:** Regular use can strengthen the immune system by helping the body flush out toxins.

## SHASHTIKA SHALI PINDA SWEDA (SSPS):

Shashtika Shali Pinda Sweda is a type of Sankara Sweda, categorized as a Saagni Sweda using Snigdha Dravya like milk and a specific rice variety (Shaali Dhanya) <sup>[6]</sup>. In Shashtika shali pinda sweda, a combination of heat, massage, and pressure is applied, which nourishes the muscles and stimulates the nerve endings. This technique is a common method of swedana used in pediatric patients, where specific areas or the entire body is made to perspire using Shashtika Shali (a variety of rice) prepared as pottalis (boluses tied in cotton cloth).

### Process:

1. **Preparation of Shashtika Shali:** Shashtika shali rice is cooked with milk and a decoction of herbs<sup>[7]</sup>.
2. **Creating Pottalis:** The cooked rice is placed in pieces of cloth to form pottalis (boluses).
3. **Heating:** The remaining decoction and milk are mixed and heated at low temperature, then the pottalis are dipped into this mixture to warm them.
4. **Massage and Application:** After massaging the patient with suitable warm oil, the warm pottalis are gently applied to the body. This process typically takes about 30 minutes to 1 hour.

### Precautions:

- **Eye Protection:** Swedana should be performed after covering the child's eyes with leaves of Kumuda, Utpala, Padma, or a soft cloth to protect the eyes from the heat.
- **Cardiac Region:** The cardiac region of the child should be consistently cooled during the procedure by applying a Mukta (pearl) or a hand dipped in cold water, or by placing a pot filled with cold water near the area.

## IMPORTANCE AND BENEFITS:

- **In Muscular Dystrophies:** a combination of heat, massage, and pressure is applied, which nourishes the muscles and stimulates the nerve endings and hence helps in different muscular dystrophies.

- Relieves Discomfort: SSPS helps in relieving heaviness, stiffness, and coldness in children.
- Improves Digestion: This therapy is also helpful in improving digestion, reducing discomfort from gas, and providing relief from digestive disorders.
- Calms and Soothes: The warmth and pressure applied during the therapy help calm the body, relieve muscle tension, and support overall well-being.

Shashtika Shali Pinda Sweda is an effective Ayurvedic therapy for children that promotes relaxation, relieves abdominal discomfort, and aids in digestion, while also providing nourishment and soothing muscle stiffness. However, it should be performed under the supervision of an experienced Ayurvedic practitioner to ensure the safety and comfort of the child.

### SWEDANA FOR CHILDREN

In children, Swedana can be helpful for improving circulation, easing muscle tension, and promoting overall wellness. However, it's essential to keep the following considerations in mind:

1. Gentle Heat: Children are more sensitive to heat, so the temperature must be kept mild. Excessive heat may lead to dehydration or discomfort, so it should never be as intense as in adults.
2. Shorter Sessions: The duration of Swedana should be much shorter for children, depending on the child's age, constitution, and comfort level.
3. Age Considerations: Swedana therapy must be selected according to the age of patient. For example Hasta Sweda is suitable for children over the age of 4 months.
4. Hydration: Since Swedana induces sweating, it's important to ensure that the child is well-hydrated before and after the therapy to prevent dehydration.
5. Monitoring: Always monitor the child closely during the therapy to ensure they are not becoming too hot or uncomfortable. If at any point the child seems distressed or too warm, the therapy should be stopped immediately.

### CONTRAINDICATIONS FOR CHILDREN

Swedana should not be done in the following cases<sup>[8]</sup>:

- When the child is feverish or has an active infection (because heat can aggravate these conditions).
- In the case of Moderate to severe dehydration or if the child has a sensitive skin condition.
- Individuals with pitta predominance, those who are suffering from diarrhoea, inflamed colon, prolapsed rectum,
- Individuals having thirst, hunger, anger, depression, jaundice, ascitis, rheumatoid diseases.
- Extremely emaciated, highly immune compromised children.

Swedana therapy plays a pivotal role in Ayurvedic detoxification and therapeutic procedures. However, its application in children requires careful selection of techniques that align with their physiological characteristics. By modifying Swedana methods according to *Acharya Kashyapa's* principles, Ayurvedic practitioners can safely integrate this therapy into pediatric care while minimizing risks. Further clinical studies are essential to validate its efficacy and safety for various pediatric conditions.

### Key Observations:

- Stronger Swedana therapies (e.g., Bashpa Sweda, Pinda Sweda) were **not recommended** for children below **5 years**.
- **Temperature regulation** and **duration adjustment** were critical to avoid adverse effects.
- **Hydration and post-Swedana care** played a vital role in preventing complications.

## RESULTS

The reviewed literature indicates that **mild forms of Swedana** can be safely administered to children, particularly in conditions such as:

1. **Respiratory disorders:** Cold, cough, asthma, bronchitis (with Upanaha Sweda, Parisheka Sweda)
2. **Musculoskeletal stiffness:** Congenital deformities, cerebral palsy (with Sankara Sweda, Avagaha Sweda)
3. **Digestive issues:** Indigestion, colic pain (with Hasta Sweda, Pata Sweda)

## DISCUSSION

### MECHANISM OF ACTION

Swedana works by dilating **Srotas (body channels)**, enhancing circulation, and promoting **toxin elimination**. In children, these benefits must be weighed against their **delicate physiological state**. Pediatric Swedana is thought to:

- Improve microcirculation and oxygen delivery.
- Aid in the liquefaction and expulsion of **Kapha Dosha**, making it effective for respiratory disorders.
- Enhance **digestive fire (Agni)**, promoting metabolism and nutrient absorption.

### SAFETY CONSIDERATIONS

Despite its benefits, Swedana therapy must be cautiously administered in children to prevent **overheating, dehydration, and skin irritation**. Key safety measures include:

- **Temperature Control:** Maintaining heat between **40-45°C**.
- **Duration Limitation:** Sessions should not exceed **10-15 minutes**.
- **Hydration:** Ensuring adequate fluid intake before and after therapy.
- **Observation:** Continuous monitoring for **excessive sweating, weakness, or discomfort**.

### GAPS IN RESEARCH

Although classical texts support pediatric Swedana, **modern clinical validation is limited**. More randomized controlled trials (RCTs) are required to:

- Establish **optimal parameters (temperature, duration, frequency)**.
- Compare the efficacy of **different Swedana techniques in specific pediatric disorders**.
- Evaluate **long-term safety and physiological impacts**.

## CONCLUSION

Swedana therapy, when adapted appropriately, is a valuable intervention in pediatric Ayurveda. It offers benefits in **respiratory, musculoskeletal, and digestive disorders**. However, careful modifications in **technique, duration, and intensity** are essential to ensure safety. More clinical studies are needed to develop standardized guidelines for pediatric Swedana in Ayurvedic practice.

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