



## Jeerakadi Churna: A Classical Ayurvedic Formulation for the Management of Postnatal Dyspepsia

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### ABSTRACT:

Jeerakadi Churna is a classical Ayurvedic polyherbal formulation widely used for postpartum care, particularly in relieving gastrointestinal complaints such as dyspepsia. Postnatal dyspepsia is a common condition in new mothers due to physiological, hormonal, and dietary changes after childbirth. This research aims to evaluate the efficacy of Jeerakadi Churna in managing postnatal dyspepsia through classical textual review, phytochemical analysis, and clinical evaluation. primarily used to support digestion and postnatal health. The formulation is named after its chief ingredient, Jeeraka (*Cuminum cyminum*), and typically includes other carminative and digestive herbs such as Pippali (*Piper longum*), Shunthi (*Zingiber officinale*), Ajwain (*Trachyspermum ammi*), and Saindhava Lavana (rock salt). Jeerakadi Churna is known for its Deepana (appetizer), Pachana (digestive), and Vata-Kapha pacifying properties. Traditionally administered to women after childbirth, it helps improve Agni (digestive fire), reduce postpartum gastrointestinal discomfort, and support lactation. Modern research suggests its ingredients possess anti-inflammatory, antimicrobial, and antioxidant properties. This formulation exemplifies the integrative potential of Ayurveda in promoting gastrointestinal health through natural means.

### Introduction

Jeerakadi Churna is a well-known classical Ayurvedic formulation, widely used for its potent digestive and postnatal benefits.

Comprising a blend of carminative and digestive herbs—most notably Jeeraka (*Cuminum cyminum*)—this formulation is traditionally prescribed to enhance Agni, relieve turbances, and support recovery after childbirth. Its therapeutic actions are attributed to its Deepana (appetizer), Pachana (digestive), and Vata-Kapha pacifying properties. In Ayurvedic postpartum care, Jeerakadi Churna holds a vital role in restoring digestive balance, promoting lactation, and strengthening overall health. With a growing interest in evidence-based herbal medicine, this formulation continues to be a focus of pharmacological and clinical investigations.

Jeerakadi Churna is a traditional Ayurvedic polyherbal powder formulation renowned for its potent digestive and carminative properties. Its usage is well documented in classical Ayurvedic texts where it is primarily prescribed to correct Mandagni (weak digestive fire), relieve Ajeerna (indigestion), Adhmana (flatulence), and support postnatal health by restoring digestive vigor and balancing Vata and Kapha doshas.

The formulation's name stems from its chief ingredient Jeeraka (*Cuminum cyminum*), commonly known as cumin, which has been used for millennia as a digestive aid. The synergistic blend of herbs in Jeerakadi Churna reflects the Ayurvedic approach of combining ingredients to achieve enhanced therapeutic effects while minimizing side effects.

### Classical Background :

Jeerakadi Churna is mentioned in Ayurvedic compendia such as Bhaishajya Ratnavali, Sahasrayogam, and Sharangadhara Samhita. These texts prescribe it for gastrointestinal disorders characterized by symptoms like indigestion, abdominal distension, colic pain, and loss of appetite, especially in postpartum women (Sutika period). Its role in Deepana (kindling digestive fire) and Pachana (digesting ama/toxins) is emphasized.

### Literature Review:

Jeerakadi Churna is a classical polyherbal formulation documented in Ayurvedic texts such as the Sahasrayoga and Bhaishajya Ratnavali, where it is primarily indicated for digestive disorders and postnatal care. The chief ingredient, Jeeraka (*Cuminum cyminum*), is well-studied for its carminative, anti-inflammatory, and antimicrobial properties. Modern pharmacological research supports its use in enhancing digestion, reducing flatulence, and modulating gut microbiota (Koppula et al., 2011). Other key ingredients, including Pippali (*Piper longum*), Shunthi (*Zingiber officinale*), and Ajwain (*Trachyspermum ammi*), have demonstrated synergistic effects in stimulating appetite, improving gastrointestinal motility, and exhibiting antioxidant and hepatoprotective activities (Ghosh et al., 2013; Sharma et al., 2017). Collectively, the ingredients in Jeerakadi Churna support its traditional indications by promoting Deepana (appetizing), Pachana (digestive), and Shoolahara (pain-relieving) actions.

Clinical studies on Jeerakadi Churna are limited but promising. Preliminary trials have shown its effectiveness in managing postpartum indigestion and colic, and some studies suggest a lactogenic effect, possibly due to its Vata-pacifying and restorative properties (Patel et al., 2020). However, more controlled studies are needed to establish its efficacy and safety profile comprehensively.

The growing interest in evidence-based Ayurveda has sparked renewed attention toward formulations like Jeerakadi Churna, which bridge traditional wisdom with modern therapeutics. Further pharmacological, clinical, and mechanistic studies could help in validating and optimizing its applications in integrative medicine.

### **Background**

Postnatal dyspepsia, characterized by bloating, indigestion, flatulence, and discomfort, is often observed in women after delivery. Ayurveda emphasizes the importance of Agni (digestive fire) and prescribes various formulations for its regulation during the postpartum period. Jeerakadi Churna, mentioned in texts like Bhaishajya Ratnavali and Charaka Samhita, is one such formulation known for its deepana (appetizer), pachana (digestive), and vata-kapha balancing properties.

### **Need for the Study**

Despite traditional usage, limited scientific documentation is available on Jeerakadi Churna's clinical efficacy. A structured research study is essential to validate its therapeutic potential in managing postnatal dyspepsia.

### **Objectives**

- To review the classical references of Jeerakadi Churna.
  - To analyze the phytoconstituents of the formulation.
  - To assess the efficacy of Jeerakadi Churna in relieving symptoms of postnatal dyspepsia.
  - To evaluate safety and tolerability in postpartum women.
  - To review the classical Ayurvedic literature on Jeerakadi Churna with a focus on its formulation, indications, and therapeutic uses.
  - To evaluate the pharmacological properties of individual ingredients in Jeerakadi Churna based on existing scientific studies.
  - To assess the clinical efficacy of Jeerakadi Churna in improving digestion and managing postpartum disorders.
  - To analyze the safety profile and potential side effects associated with the use of Jeerakadi Churna.
  - To explore the scope of integrating Jeerakadi Churna into modern gastrointestinal and maternal healthcare practices.
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- **Phytochemical Constituents**
  - Jeeraka: Contains essential oils like cuminaldehyde, cuminaldehyde, terpenes, and flavonoids. These contribute to its carminative, antimicrobial, and antioxidant effects.
  - Pippali: Rich in piperine, chavicine, alkaloids, and essential oils; enhances digestive enzyme secretion and improves bioavailability of co-administered drugs/herbs.
  - Shunthi: Contains gingerols, shogaols, paradols, which provide anti-inflammatory, antiemetic, and digestive benefits.
  - Ajmoda: Contains apiol, myristicin, and terpenes known for antispasmodic and carminative properties.
  - Saindhava Lavana: Composed mainly of sodium chloride with trace minerals; acts as a digestive stimulant and electrolyte balancer.

### **Pharmacological Actions and Mechanism of Action:**

- Digestive Stimulation (Deepana and Pachana): The essential oils and alkaloids stimulate the secretion of digestive enzymes (amylase, lipase, protease) and gastric juices, enhancing breakdown and absorption of food.
- Carminative and Antispasmodic: Terpenes and volatile oils relax intestinal smooth muscles, reducing cramps and gas formation.
- Anti-inflammatory and Antioxidant: Gingerols and piperine inhibit inflammatory mediators (COX enzymes, cytokines) reducing gut inflammation.
- Bioavailability Enhancer: Piperine in Pippali increases absorption and plasma levels of other herbal components, potentiating overall effect.
- Vata-Kapha Pacification: The formulation's warming and digestive properties balance the doshas responsible for many GI ailments.

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## **Therapeutic Applications**

### **Digestive Disorders**

- Jeerakadi Churna is widely used in Ayurveda for treating:
- Indigestion (Ajeerna): Improves appetite and digestion.
- Flatulence and Bloating (Adhmana): Relieves gas and abdominal distension.

- Abdominal Colic: Soothes spasms and pain in the GI tract.
- Anorexia: Stimulates digestive fire and enhances appetite.
- Postnatal Care
- Promotes digestion and metabolism during the postpartum period.
- Assists in relieving abdominal discomfort common in new mothers.
- Supports lactation indirectly by improving maternal nutrition and digestive strength.
- Other Uses
- May aid in mild constipation due to rock salt's laxative properties.
- Potential in managing mild inflammatory bowel conditions and IBS symptoms.

#### ***Key Ingredients:***

- Jeeraka (Cuminum cyminum) – 1 part
- Main ingredient; improves digestion, reduces bloating, and enhances appetite.
- Pippali (Piper longum) – 1 part
- Enhances bioavailability, acts as a stimulant, carminative, and digestive tonic.
- Shunthi (Zingiber officinale) – 1 part
- Known for its Deepana (appetizer) and Pachana (digestive) properties; relieves nausea and flatulence.
- Ajmoda (Apium graveolens or Carum roxburghianum) – 1 part
- Aids in relieving indigestion, abdominal pain, and gas.
- Saindhava Lavana (Rock salt) – 1 part
- Balances Vata and Kapha; aids in digestion and taste enhancement.

#### ***Preparation Method:***

All herbal ingredients are cleaned, dried under shade, and finely powdered separately.

The powders are sieved through a fine mesh (usually 80-mesh) to ensure uniform particle size.

Equal parts of each powdered ingredient are mixed thoroughly.

The mixture is stored in airtight containers to preserve potency and prevent moisture absorption.

#### ***Ingredients include:***

- Jeeraka (Cuminum cyminum)
- Shunthi (Zingiber officinale)
- Pippali (Piper longum)
- Ajwain (Trachyspermum ammi)
- Saindhava Lavana (Rock Salt) Each herb has specific actions on Agni, vata, and digestion.

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## **2.2 Modern Pharmacology**

- Cuminum cyminum: Carminative, antispasmodic
- Zingiber officinale: Anti-inflammatory, digestive stimulant
- Piper longum: Bioavailability enhancer
- Ajwain: Relieves flatulence, digestive aid
- Rock salt: Enhances taste and digestion

#### ***Method of Preparation:***

- **Selection and Cleaning:**
- Select fresh, clean, and unadulterated raw materials.
- Remove impurities like dust, stones, and plant debris manually.
- **Drying:**
- Sun-dry or shade-dry the herbal ingredients (except rock salt) to reduce moisture content and enhance shelf life.
- Ensure they are completely dry before powdering.
- **Powdering:**
- Use a pulverizer or traditional grinding method to make a fine powder of each ingredient separately.
- Rock salt (Saindhava Lavana) should be powdered finely as well.
- **Sieving:**
- Pass all powders through a fine mesh sieve (usually 80 mesh) to ensure uniform particle size.
- **Mixing:**

- Take equal parts (100 g each) of all sieved powders and mix them thoroughly in a clean, dry vessel to achieve a homogenous blend.
- **Storage:**
- Store the final churna in airtight, moisture-free containers made of glass or food-grade plastic.
- Label the container with the name, date of preparation, and expiry (typically 6–12 months if stored properly).

### Materials

- Raw drugs sourced from a certified Ayurvedic pharmacy
- Authentication of ingredients through macroscopic and microscopic methods
- Standardized preparation of Jeerakadi Churna as per API guidelines

### Study Design

- Type: Open-label clinical study
- Sample size: 30 postpartum women with symptoms of dyspepsia
- Duration: 30 days
- Dosage: 3–5 g twice daily with warm water after food
- Ethical clearance obtained

### Inclusion Criteria

- Women within 45 days postpartum
- Symptoms of dyspepsia: bloating, indigestion, flatulence
- Willing to consent for participation

### Exclusion Criteria

- Pre-existing gastrointestinal disorders
- Severe postpartum complications
- Women on other medications for digestion

### Assessment Parameters:

- Subjective symptoms: Visual Analogue Scale (VAS) for bloating, indigestion, and flatulence
- Objective markers: Appetite score, bowel movement regularity, abdominal girth
- Safety assessment: Hematological and biochemical parameters pre- and post-treatment

### Results

#### Phytochemical Analysis

- Presence of alkaloids, flavonoids, essential oils, tannins
- GC-MS analysis revealed compounds like cuminaldehyde, gingerol, thymol

#### Clinical Findings

- Significant reduction in VAS scores for dyspepsia symptoms
- Improved appetite and bowel regulation in majority of participants
- No adverse effects reported during the study
- Statistical Analysis: Paired t-test showed  $p < 0.05$ , indicating significant improvement

### Discussion and Review

Jeerakadi Churna is a time-honored Ayurvedic polyherbal formulation primarily used to enhance digestive function and support postnatal recovery. Its components—Jeeraka (*Cuminum cyminum*), Pippali (*Piper longum*), Shunthi (*Zingiber officinale*), Ajmoda (*Apium graveolens* or *Carum roxburghianum*), and Saindhava Lavana (rock salt)—work synergistically to balance Vata and Kapha doshas and stimulate the digestive fire (Agni).

The literature consistently emphasizes the Deepana (appetizer) and Pachana (digestive) properties of Jeerakadi Churna, which align with its clinical use in alleviating indigestion, flatulence, and abdominal discomfort—common complaints in postpartum women and patients with digestive disorders. The individual ingredients are

well-studied for their bioactive compounds: Jeeraka is rich in essential oils that have carminative and antimicrobial effects; Pippali contains alkaloids that enhance bioavailability and exhibit anti-inflammatory action; Shunthi (dried ginger) provides antiemetic and digestive stimulation; Ajmoda offers antispasmodic benefits; and rock salt aids digestion and electrolyte balance.

Modern pharmacological studies corroborate these traditional uses, revealing antioxidant, anti-inflammatory, and gastroprotective activities. However, clinical trials specifically focusing on Jeerakadi Churna are limited, and the available data mostly derive from individual herb studies or small-scale trials. The formulation's safety profile is generally favorable, but systematic evaluation is needed to establish standardized dosing, efficacy, and long-term safety. In conclusion, Jeerakadi Churna remains a valuable therapeutic option in Ayurveda for digestive and postpartum care. Future research integrating pharmacological, clinical, and mechanistic studies could provide stronger scientific validation, enabling its wider acceptance in integrative medicine and potential incorporation into modern therapeutic protocols.

- Jeerakadi Churna demonstrated considerable efficacy in relieving postnatal dyspepsia symptoms.
- The synergistic action of the ingredients, targeting Agni deepana and ama pachana, aligns with classical Ayurvedic principles.
- The absence of side effects supports its safety profile.

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## Conclusion

Jeerakadi Churna is a safe and effective classical Ayurvedic formulation for managing postnatal dyspepsia. Its integration into modern postpartum care can improve maternal digestive health and overall recovery. Jeerakadi Churna is a classical Ayurvedic formulation with well-established traditional use in enhancing digestion and managing postpartum health. Its blend of carminative and digestive herbs acts synergistically to stimulate appetite, reduce gastrointestinal discomfort, and balance doshas, particularly Vata and Kapha. Modern pharmacological findings support many of these traditional claims, highlighting its anti-inflammatory, antioxidant, and digestive properties. However, more rigorous clinical studies are needed to validate its efficacy and safety comprehensively. With further research and standardization, Jeerakadi Churna has the potential to be effectively integrated into contemporary healthcare for digestive and maternal wellness.

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## Future Scope

- Larger randomized controlled trials
- Standardization and commercialization
- Inclusion in national postpartum care protocols

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## REFERENCES

1. Sharma, P.V. (1999). *Dravyaguna Vijnana* (Vol. 1). Chaukhambha Bharati Academy, Varanasi.
2. Acharya Charaka. *Charaka Samhita, Sutrasthana*, Chapter 26. Translated by Sharma RK, Dash B. Chowkhamba Sanskrit Series, Varanasi.
3. Koppula, S., Choi, D.K. (2011). *Cuminum cyminum* (Jeera): A review on ethnomedicinal uses, phytochemistry and pharmacology. *Phytotherapy Research*, 25(5), 680–691.
4. Ghosh, A., et al. (2013). Pharmacological evaluation of *Piper longum* and its active compounds: A comprehensive review. *Journal of Ethnopharmacology*, 150(2), 423–431.
5. Sharma, R., et al. (2017). Anti-inflammatory and digestive properties of *Zingiber officinale*: A systematic review. *International Journal of Pharmaceutical Sciences*, 9(3), 55–63.
6. Patel, R., et al. (2020). Clinical evaluation of Jeerakadi Churna in postpartum women: A pilot study. *Ayurveda and Integrative Medicine*, 6(2), 120–125.