

# AYUSCRIPT

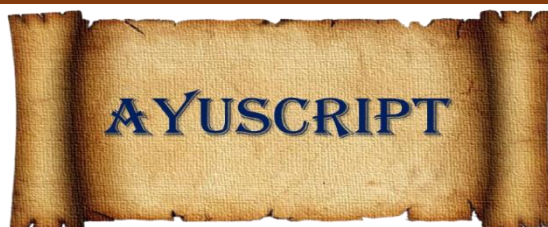
International Journal for Empirical Research in Ayurveda

[www.ayuscript.com](http://www.ayuscript.com)

Volume - 5, Issue - 1  
January-March: 2026

॥ १ ॥ विश्वकर्मो एमाहूयपुरीहाटकनि  
 र्मेता ॥ नवयोऽशिसाहस्रस्त्रीरुणवेचवराधिकम् ॥ ११ ॥ भवनानि मनोज्ञानि  
 योमध्यकल्पयन् ॥ परिजानन्तं चैवतासंभोगायकल्पयन् ॥ १२ ॥ या  
 यानोमृदास्तनद्यदपेचाशतकोटयः ॥ अन्यपिबहवोलाकावसेनिविगत  
 राः ॥ १३ ॥ यन्किंवित्रियुक्तोकेषु सुंदरंनचक्षते ॥ सवाजिनप्रसेनाख्योपु  
 त्रयुग्यविद्युते ॥ १४ ॥ सुभाषितीरमासाद्यनमनस्कतयावसः ॥ सनाडि  
 स्नपस्तेपेस्वर्यमुदिशपुष्टिमाच्य ॥ १५ ॥ अर्ननिरसनैहसस्यैसंवदलेव  
 नः ॥ प्रसन्नभगवान्मनोजितपुरस्थिता ॥ १६ ॥ सत्रात्रितोपिनुष्टावदष्टादेवेदि  
 णकरय ॥ निजोराशनमस्तेस्तनमस्तेसर्वतोमुखः ॥ १७ ॥ विश्वव्यापिन्नमस्तेस्त  
 मस्तेनिभूरुपिया ॥ करपपेयनमस्तेस्त हरिदस्तेनमोस्तते ॥ १८ ॥ गहराजनम  
 तेस्तनमस्तेवेदरोचिषो ॥ वेदत्रयनमस्तेस्तसर्वदेवनमोस्तते ॥ १९ ॥ प्रसीद  
 णहिदेवैशसुदृष्टीमादिवाकरे ॥ ध्येसकथयमानोसादवदेवादिवाकरे ॥ २० ॥  
 तेषामभीरनधरंस्वकजिनमवावेह ॥ चरंरुहिप्रसन्नैस्त्रियतेमनसि





## International Journal for Empirical Research in Ayurveda

### Nutritional Deficiency Anaemia: An Ayurvedic Review

Yadav N.<sup>1</sup>, Patil A.<sup>2</sup>

1. PG Scholar, Department of Kaumarbhritya, Government Ayurved College, Nanded, Maharashtra, India
2. Assistant Professor, Department of Kaumarbhritya, Government Ayurved College, Nanded, Maharashtra, India

#### ABSTRACT:

Nutritional deficiency anaemia, particularly Iron-deficiency anaemia, remains a major public health concern in developing countries such as India. It commonly affects vulnerable groups including children, adolescents, and pregnant women, leading to symptoms such as fatigue, weakness, pallor, and reduced physical and cognitive performance. In Ayurveda, the clinical features of nutritional anaemia closely resemble Pandu Roga, a disorder described in classical texts characterized by pallor of the skin, diminished strength, and impairment of bodily tissues. According to Ayurvedic principles, Pandu Roga mainly results from impaired digestive fire (Agni), improper dietary habits, and vitiation of Doshas, particularly Pitta, which ultimately affects the formation and quality of blood (Rakta Dhatu). Management in Ayurveda emphasizes a holistic approach that includes Nidana Parivarjana (avoidance of causative factors), correction of Agni through digestive and metabolic stimulants, and the use of herbal formulations with haematinic and Rasayana (rejuvenating) properties. Dietary modifications and lifestyle regulation are also considered essential components of therapy to restore physiological balance and improve blood quality. This review aims to integrate classical Ayurvedic concepts with contemporary scientific understanding, highlighting the pathogenesis, clinical features, and evidence-based Ayurvedic interventions for the effective management of nutritional deficiency anaemia.

**Key words:** Nutritional Deficiency Anaemia, Iron Deficiency Anaemia, Pandu Roga, Ayurveda, Rasayana, Haemoglobin, Dietary Management

#### CORRESPONDING AUTHOR:

**Dr. Neha Vinod Yadav**

PG Scholar, Department of Kaumarbhritya,  
Government Ayurved College, Nanded, Maharashtra, India.  
Email: [nehavy1410@gmail.com](mailto:nehavy1410@gmail.com), Mobile No. 7506083752

#### How to cite this Article:

Yadav N., Patil A. Nutritional Deficiency Anaemia: An Ayurvedic Review.  
AYUSCRIPT 2026;5(1):55-60 DOI: <http://doi.org/10.55552/AYUSCRIPT.2026.5110>

**Introduction:**

Anaemia happens when the amount of haemoglobin in the blood is lower than normal for a person's age and sex, which means the blood cannot carry as much oxygen to the body. Nutritional anaemia in children arises primarily from deficiencies in iron, vitamin B12, folate, or other micronutrients, impairing haemoglobin synthesis and oxygen transport. Globally, it affects over 1.6 billion people, with children under five bearing a heavy burden—prevalence exceeds 70% in parts of India, leading to growth stunting, cognitive delays, and increased infection susceptibility.<sup>[1]</sup> Iron-deficiency anaemia (IDA) is the most common type and occurs when someone does not get enough iron from their diet, loses iron, or loses blood from periods, infections, or long-lasting bleeding. In India, IDA is especially common among school children, teenage girls, and pregnant women. This shows that we need real, lasting solutions in healthcare that do more than just hand out iron pills. To improve treatment, it is important to consider alternatives to iron supplements. In *Ayurveda*, this manifests as *Pandu Roga*, a *Tridoshaja* disorder predominantly involving *Pitta*, characterized by *Panduta* (pallor) and *Rakta Dhatu Kshaya* (blood tissue depletion). Classical texts like *Charaka Samhita Chikitsa Sthana* 16 describe it as stemming from *Agnidushti* (impaired digestion) and *Dhatuposhana Nasha* (nutrient malabsorption), mirroring modern nutritional deficits from poor diet, infections, or malabsorption.<sup>[2]</sup>

Children in *Kaumarbhritya* (pediatric branch) are prone due to immature *Agni* and the demands of rapid growth. This review synthesises *Ayurvedic* aetiology, pathology, management, and evidence, aiming to bridge traditional wisdom with contemporary needs for safer, sustainable interventions.

**Aims:**

To correlate current ideas about nutritional-deficiency anaemia with the *Ayurvedic* condition called *Pandu Roga*.

To describe how *Ayurveda* explains the causes of anaemia similar to *Pandu*.

To summarise traditional and modern *Ayurvedic* remedies used for iron-deficiency anaemia.

**Materials and Methodology:**

Source materials:

Classical *Ayurvedic* texts (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Bhavaprakasha*, *Sharangadhara Samhita*).

Peer-reviewed journal articles on *Ayurvedic* management of iron-deficiency anaemia and *Pandu Roga* indexed in PubMed and *Ayurvedic* journals.

Case reports and observational studies describing *Ayurvedic* interventions in anaemia.

Search strategy:

Keywords used: “*Pandu Roga*”, “Iron Deficiency Anaemia”, “*Ayurveda*”, “*Ayurvedic* formulations”, “nutritional anaemia”.

Articles were chosen if they were related to *Ayurvedic* causes, treatments, and results in anaemia.

**Result:**

1. Conceptual correlation: Nutritional anaemia and *Pandu Roga*

Modern medicine classifies nutritional anaemia by the cause, such as iron, vitamin B12, or folate deficiency, or by blood cell breakdown. The most commonly found nutrient deficiency is iron, which causes anaemia. It is estimated that 30-50% of the global population has iron-deficiency anaemia, and most of these individuals live in developing countries.<sup>[3]</sup>

*Ayurveda*, on the other hand, sees *Pandu* as a problem caused by excessive accumulation of *Pitta*, which disrupts the blood and body fluids. Both systems agree: if there are not sufficient nutrients in the body, haemoglobin levels drop, and the body does not get enough oxygen. In *Pandu*, too much *Pitta*, along with *Vata* and *Kapha*, weakens digestion and the process that turns food into blood, making the body look pale and feel tired.<sup>[4]</sup>

2. Pathogenesis in *Ayurveda*

*Pandu* starts when digestion becomes weak and *Vata* and *Pitta* become unbalanced, often due to unhealthy eating, eating too many spicy or salty foods, mixing foods that do not go well together, eating at odd times, and stress. These habits create *Ama* (undigested toxin) which blocks the body's vital pathways and weakens tissues, leading to pale skin. Modern science sees something similar, linking long-lasting swelling, stomach problems, and trouble taking in nutrients to low iron levels and slow blood production.<sup>[5]</sup>

### 3. Clinical Features;

Common *Lakshana*: *Panduta* (pallor), *Mandagni* (impairment of digestive fire), *Aruchi* (anorexia), *Gaurava* (heaviness), *Bhrama* (dizziness), *Hridaya Spandana* (palpitations), *Shwas* (dyspnoea), and matching anaemia signs such as fatigue and irritability.<sup>[6]</sup>

### 4. Ayurvedic management principles

*Ayurveda* treats nutritional deficiency anaemia by combining changes in diet, herbal medicines, and lifestyle habits for a complete approach:

*Ayurvedic* management actions can be grouped into three key approaches:

**Digestive Rekindling:** This includes *Nidana-parivarjana* (elimination of cause), in which you remove triggers such as junk food, too much tea or coffee, and poor food combinations. It also means dealing with causes like, parasite infections, or stomach problems. *Deepana-Pachana* therapies, using herbal starters and digestives such as *Chitrakadi vati* and *Hingvadi churna*, are used to restart digestion and help the body better absorb nutrients. Use of various ghrutas

should be promoted for anaemia, e.g., *Dadim ghruta*, *Katukadya ghruta*, *Pathya ghruta*, *Draksha ghruta*, *Haridradi ghruta*.<sup>[7]</sup>

**Blood Enrichment:** This group focuses on nourishing the blood and other vital body fluids with iron-rich *Ayurvedic* products such as *Loha-bhasma* and *Mandur Bhasma* along with strengthening herbs like *Ashwagandha*, *Shatavari*, *Amalaki*, and *Yashtimadhu*.

**Elimination and Recovery:** Gentle cleansing therapies, such as *Virechana* or *Vamana*, are used when needed to clear *Ama* and restart digestion. After cleansing, foods are gradually reintroduced through the *Samsarjana-krama* diet.<sup>[8]</sup>

### Classical Formulations

Prominent herbo-mineral compounds include *Dhatri Lauha* (*Emblica officinalis*, *Lauha Bhasma*, *Yashtimadhu*, *Guduchi*), dosed at 500 mg twice daily, showing significant haemoglobin rise (0.72 g/dl in 45 days) and improved MCV and ferritin levels in trials. *Punarnavadi Mandura* with buttermilk enhances absorption via lactic acid, effective in pediatrics and geriatrics. Others: *Navayasa Lauha*, *Sarva-Jvara-Hara Lauha* (highest Hb gain: 0.16 g/dl/day), *Pradarantaka Lauha*, and *Dadimadi Ghrita* for special groups. Over 100 formulations use 138 plants, including *Pippali* and *Shunthi*, most frequently.<sup>[9]</sup>

Iron-containing Bhasmas and Lauha preparations

These are the backbone of *Pandu* treatment and act as organic iron supplements with better bioavailability and fewer side-effects than conventional ferrous salts.

**Table 1**

Formulation. <sup>[10]</sup>	Key ingredients	Probable mechanism / indication
<i>Navayasa Lauha</i>	<i>Loha bhasma</i> , <i>yavakshara</i> , <i>amalaki</i> , <i>pippali</i> , <i>shunthi</i> , <i>trikatu</i>	Corrects <i>agni</i> , enhances iron absorption; used in chronic anaemia with indigestion.
<i>Dhatri Lauha</i>	<i>Loha bhasma</i> , <i>amalaki</i> , <i>yastimadhu</i> , <i>pippali</i>	Strong <i>raktavardhaka</i> ; indicated in iron-deficiency anaemia with weakness and palpitation.

<i>Punarnavadi Mandura</i>	<i>Mandura bhasma, punarnava, triphala</i>	Combines iron with diuretic and detoxifying herbs; useful in anaemia with oedema or mild ascites.
<i>Trikatrayadi Lauha</i>	<i>Loha bhasma, trikatu, amalaki, yastimadhu</i>	Stimulates <i>agni</i> and iron absorption; studied in paediatric iron-deficiency anaemia.
<i>Pradarantaka Lauha</i>	<i>Loha bhasma, ashoka, lodhra, shatavari</i>	Primarily for anaemia due to menorrhagia and uterine bleeding.
<i>Vrihat Yakrdari Lauha</i>	<i>Loha bhasma, kutki, chitrak, trikatu</i>	For anaemia associated with liver dysfunction and impaired digestion.
<i>Kasisa Bhasma</i>	Purified ferrous sulphate	Used in low-dose regimens for iron-deficiency anaemia; improves haemoglobin and iron stores.

### Discussion:

*Pandu Roga's* framework explains nutritional anaemia's multifactorial nature better than singular nutrient focus, addressing root *Agnidushti* via *Rasayana* (e.g., *Drakshasava*) for sustained *Dhatu Poshana*. Children's vulnerability stems from *Sukradhatu* dependency on parental health and immature *Rasavaha Srotas*, advocating early *Pathya* like *Ghrita-Mamsa* soups.

Ayurvedic iron formulations typically contain *lauha* or *mandura bhasma* in organic or nano-crystalline form, which is believed to be better tolerated than inorganic ferrous salts. The accompanying herbs often provide:

- Vitamin-C-rich components (*amalaki, draksha, yasti madhu*) that enhance non-haem iron absorption.
- *Deepana-pachana* herbs (*trikatu, chitrak, ajamoda*) that improve *agni* and nutrient assimilation.
- Anti-inflammatory and hepatoprotective agents (*kutki, yastimadhu, punarnava*) that correct underlying metabolic dysfunction.

This explains why many trials report not only haemoglobin rise but also improvement in fatigue, appetite, and quality of life, with fewer GI side-effects than conventional iron.

*Ghrita*, or medicated *ghee*, plays a pivotal role in managing *Pandu Roga*. Due to its unique properties, such as *snigdha* (unctuous), *sara* (mobile), *jivaniya* (life-promoting), and *snehana* (oleation), it lubricates *srotas* (channels), ignites *jatharagni* and *dhatvagnis* (digestive fires), and nourishes depleted *rasa-rakta dhatus* without aggravating *pitta*, the primary dosha in *Pandu*.

Evidence from clinical and experimental studies

- A controlled trial on six commonly used Ayurvedic iron preparations (*Navayasa Churna, Punarnavadi Mandura, Dhatri Lauha, Pradarantaka Lauha, Sarva-Juara-Hara Lauha, Vrihat Yakrdari Lauha*) showed significant improvement in haemoglobin and iron indices over 30 days, with good tolerability.<sup>[11]</sup>
- Studies on *Kasisa Bhasma* and *Dhatri Lauha* in children and adults with nutritional deficiency anaemia reported sustained rise in haemoglobin and iron stores, suggesting long-term correction of absorption defects.<sup>[12]</sup>
- Case reports in young women with iron-deficiency anaemia treated with *Pandu-line* formulations plus iron-rich diet documented rapid improvement in pallor, palpitation,

and haemoglobin (e.g., from 8.6 g/dL to 12.7 g/dL in one month. [13]

The duration is usually 3–6 months, with periodic monitoring of haemoglobin, serum iron, ferritin, and the symptom profile. Most classical *Ayurvedic* iron formulations are reported to be safe when used at recommended doses and under supervision, with fewer GI side effects than conventional ferrous salts. However, quality control of *bhasmas* (heavy-metal content and particle size) remains critical, and standardisation of doses, *anupana*, and treatment duration requires further large-scale trials.

Integrating *Ayurveda* with modern haematology offers a promising model:

- Using *Ayurvedic* therapy for long-term correction of *agni*, *dhatu-poshana*, and iron absorption,
- Reserving parenteral iron or high-dose oral iron for severe, acute, or non-responsive cases,
- Combining nutritional counselling and deworming in endemic areas.

### Conclusion:

*Ayurveda* provides a wide, evidence-informed armamentarium—from single-drug food-based remedies to complex *lauha* preparations—for the management of nutritional deficiency anaemia. A systematic, phase-wise approach combining *nidana parivarjana*, *agni-deepana*, *shodhana* where indicated, and targeted haematinic therapy can offer not only symptomatic relief but also sustained correction of underlying metabolic and nutritional defects.

### References:

1. Kotecha PV. Nutritional anaemia in young children with focus on Asia and India. *Indian J Community Med.* 2011 Jan;36(1):8-16. doi: 10.4103/0970-0218.80786. PMID: 21687374; PMCID: PMC3104701.
2. Kumar A, Garai AK. A clinical study on Pandu Roga, iron deficiency anaemia, with Trikatrayadi Lauha suspension in children. *J Ayurveda Integr Med.* 2012 Oct;3(4):215-22. doi: 10.4103/0975-9476.104446. PMID: 23326094; PMCID: PMC3545243.
3. Robert M. Kliegman, Joseph W. St Geme 3. *Nelson Textbook of Paediatrics.* 22nd Ed. Philadelphia. Elsevier. chapter 504, 2944 p.
4. Kasinatha Pandey Shastri, Charaka Samhitā with Vidyotinī Hindi commentary, Chikitsasthana, Pandu Roga Chikitsa Adhyay 16/4-6, Varanasi: Chaukhambha Sanskrit Sansthan, 440-441 p.
5. Kasinatha Pandey Shastri, Charaka Samhitā with Vidyotinī Hindi commentary, Chikitsasthana, Pandu Roga Chikitsa Adhyay 16/7-11, Varanasi: Chaukhambha Sanskrit Sansthan, 441 p.
6. Kasinatha Pandey Shastri, Charaka Samhitā with Vidyotinī Hindi commentary, Chikitsasthana, Pandu Roga Chikitsa Adhyay 16/13-16, Varanasi: Chaukhambha Sanskrit Sansthan, 441-442 p.
7. Kasinatha Pandey Shastri, Charaka Samhitā with Vidyotinī Hindi commentary, Chikitsasthana, Pandu Roga Chikitsa Adhyay 16/44-53, Varanasi: Chaukhambha Sanskrit Sansthan, 446-447 p.
8. Kasinatha Pandey Shastri, Charaka Samhitā with Vidyotinī Hindi commentary, Chikitsasthana, Pandu Roga Chikitsa Adhyay 16/39-40, Varanasi: Chaukhambha Sanskrit Sansthan, 445 p.
9. <https://jaims.in/jaims/article/view/2919>
10. Samal J. Ayurvedic preparations for the management of Iron Deficiency Anaemia: A systematic review. *Ayu.* 2016 Jul-Dec;37(3-4):163-169. doi: 10.4103/ayu.AYU\_47\_16. PMID: 29491667; PMCID: PMC5822980. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5822980/>

11. Sharma DC, Chandiramani D, Riyat M, Sharma P. Scientific evaluation of some Ayurvedic preparations for correction of iron deficiency and anaemia. *Indian J Clin Biochem.* 2007 Sep;22(2):123-8. doi: 10.1007/BF02913329. PMID: 23105698; PMCID: PMC3453821.
12. Manish G. Ishwarkar, Babita B. Mandal. Ayurvedic management of Iron deficiency anaemia in Children – a Review study. *J of Ayurveda and Hol Med (JAHM).* 2023;11(6):38-45
13. <https://ayushdhara.in/index.php/ayushdhara/article/view/867>

**Authors Contribution:** All authors have contributed equally.

**Financial Support and Sponsorship:** None declared

**Conflict of Interest:** There are no conflicts of interest.

**Declaration of Generative AI and AI Assisted Technologies in the writing process:** The author has not used generative AI/AI assisted technologies in the writing process.

International Journal for Empirical Research in Ayurveda

©2026 AYUSCRIPT (International Journal for Empirical Research in Ayurveda) An Official Publication of ARCA- AYURVEDA RESEARCH & CAREER ACADEMY

**Website:** <https://ayuscript.com/>

**Email:** [ayuscriptjournal@gmail.com](mailto:ayuscriptjournal@gmail.com)

**IIFS Impact Factor: 2.125**