



# Worm Infestation in Children: Clinical Overview and Homoeopathic Therapeutic Approach

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## Abstract

Worm infestation remains a significant public health problem among children, especially in developing countries like India. Poor sanitation, inadequate hygiene, malnutrition, and overcrowding contribute to its high prevalence. Intestinal helminths interfere with nutritional status, growth, cognition, and immunity in children. This article reviews the definition, etiology, types, signs and symptoms, pathophysiology, clinical features, diagnostic methods, and homoeopathic management of worm infestation in children. Homoeopathy offers individualized, holistic treatment focusing on constitutional and symptomatic indications.

**Keywords:** Worm infestation, Helminths, Paediatrics, Homoeopathy, Intestinal parasites.

## 1. Introduction

Worm infestation refers to infection of the human body by parasitic worms, primarily affecting the gastrointestinal tract. Children are particularly vulnerable due to immature immunity, poor hygiene practices, and exposure to contaminated soil and water.

According to the World Health Organization, soil-transmitted helminth infections affect millions of children globally, leading to anemia, malnutrition, impaired growth, and poor academic performance.

## 2. Definition

Worm infestation is defined as the invasion and multiplication of parasitic helminths within the human body, particularly in the intestines, causing nutritional, gastrointestinal, and systemic disturbances.

## 3. Etiology

The major etiological factors include:

- Poor personal hygiene
- Open defecation
- Consumption of contaminated food and water
- Walking barefoot in contaminated soil

- Malnutrition
- Overcrowded living conditions

## 4. Types of Worm Infestation

### 4.1 Roundworms (Nematodes)

- *Ascaris lumbricoides*
- *Enterobius vermicularis* (Pinworm)
- *Ancylostoma duodenale* (Hookworm)

### 4.2 Tapeworms (Cestodes)

- *Taenia solium*
- *Taenia saginata*

### 4.3 Flukes (Trematodes)

- *Schistosoma* species

## 5. Pathophysiology

1. **Entry:** Eggs or larvae enter through contaminated food, water, or skin penetration.
2. **Migration:** Some larvae migrate through lungs and bloodstream before settling in the intestines.
3. **Attachment:** Worms attach to intestinal mucosa.
4. **Nutrient Deprivation:** Parasites consume host nutrients, leading to anemia and malnutrition.
5. **Inflammation:** Mechanical irritation and immune response cause abdominal pain and diarrhea.

Hookworms cause chronic blood loss leading to iron deficiency anemia. Heavy *Ascaris* infestation may cause intestinal obstruction.

## 6. Signs and Symptoms

- Abdominal pain
- Diarrhoea or constipation
- Anal itching (especially at night – pinworms)
- Worms in stool
- Loss of appetite
- Nausea and vomiting
- Pallor
- Weight loss
- Irritability
- Disturbed sleep
- Bruxism (teeth grinding)

## 7. Clinical Features in Children

- Protuberant abdomen
- Growth retardation
- Malnutrition
- Anemia
- Behavioral disturbances
- Poor school performance
- Restlessness and hyperactivity

## 8. Diagnosis

- Stool examination for ova and parasites
- Perianal swab test (Scotch tape test) for pinworms
- Complete blood count (eosinophilia, anemia)
- Ultrasound (in severe complications)

## 9. Homoeopathic Management

Homoeopathic treatment is based on totality of symptoms and constitutional prescribing.

### 9.1 Cina

- Irritability, cross child
- Grinding of teeth
- Picking nose
- Worms with convulsions

### 9.2 Teucrium marum verum

- Intense anal itching
- Pinworm infestation
- Restless sleep

### 9.3 Santoninum

- Visual disturbances
- Worm symptoms with nervous irritability

### 9.4 Calcarea carbonica

- Obese, flabby children
- Delayed milestones
- Profuse sweating on head

### 9.5 Sulphur

- Dirty-looking skin
- Heat intolerance
- Recurrent worm infestation

## 9.6 Spigelia

- Colicky abdominal pain
- Worm sensation in intestines

## 9.7 Cuprum metallicum

- Worm infestation with convulsions

## 10. Prevention and Public Health Measures

- Regular hand washing
- Proper sanitation
- Safe drinking water
- Wearing footwear
- Periodic deworming programs as recommended by government initiatives

## 11. Discussion

Worm infestation significantly impacts physical and cognitive development in children. Early diagnosis and timely management are essential. While conventional anti helminthics provide rapid eradication, homoeopathy focuses on strengthening immunity and preventing recurrence through individualized prescriptions.

Integrated management combining hygiene education, nutritional support, and homoeopathic constitutional therapy can offer long-term benefits.

## 12. Conclusion

Worm infestation remains a preventable and treatable pediatric condition. Early identification and holistic management play a crucial role in improving child health outcomes. Homoeopathy provides a safe, individualized, and constitutional approach in managing worm infestations and preventing recurrence.

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