

## A MODERN REVIEW OF WORM INFECTION AND TREATMENT

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## INTRODUCTION

Worm infections are a common health problem, especially in children. These infections occur when parasitic worms invade the body and live within it, often in the intestines. While there are many different types of worms, some of the most common include roundworms, pinworms, hookworms, and tapeworms. These infections can cause a variety of symptoms, including abdominal pain, nausea, vomiting, diarrhea, itching around the anus, weight loss, and fatigue. In some cases, worm infections can lead to more serious health problems, such as anemia and malnutrition. There are several ways to prevent worm infections, including practicing good hygiene, such as washing hands frequently and thoroughly, especially after using the bathroom or changing diapers. It is also important to cook food properly and avoid eating raw or undercooked meat or fish. If you suspect that your child may have a worm infection, it is important to see a doctor for diagnosis and treatment.

## Causes

Worm infections in children are primarily caused by poor hygiene and sanitation practices. These include.

- **Inadequate hand washing:** Children, especially young ones, may not always wash their hands thoroughly, particularly after using the bathroom or playing outdoors. This can lead to the transfer of worm eggs from contaminated surfaces to their mouths.
- **Contaminated food and water:** Eating raw or undercooked meat or fish, or consuming food or water contaminated with worm eggs, can increase the risk of infection.
- **Exposure to infected soil:** Playing in soil contaminated with feces from infected animals or humans can expose children to worm eggs.
- **Poor sanitation:** Living in areas with inadequate sanitation, such as those lacking proper sewage systems or clean water sources, increases the risk of exposure to worm eggs.

It's important to note that while these are the main causes, other factors can also contribute to the risk of worm infections in children, such as weakened immune systems and living in crowded or unsanitary conditions.

## Types

- **Pinworm (*Enterobius vermicularis*):** These are the most common type of worm infection in children. Pinworms are small, white worms that live in the

rectum and anus. The main symptom is intense itching around the anus, especially at night.

- **Roundworm (*Ascaris lumbricoides*):** Roundworms are large, intestinal worms that can cause abdominal pain, nausea, vomiting, and diarrhea.
- **Hookworm (*Necator americanus* and *Ancylostoma duodenale*):** Hookworms attach to the inside of the small intestine and suck blood, which can lead to anemia, fatigue, and poor growth.
- **Whipworm (*Trichuris trichiura*):** Whipworms live in the large intestine and can cause abdominal pain, diarrhea, and rectal prolapse (in severe cases).
- **Tapeworm (*Taenia spp.*):** Tapeworms are long, flat worms that can live in the intestines. They can cause abdominal pain, weight loss, and diarrhea. Tapeworm infections are often acquired by eating undercooked meat.

**Signs and symptoms:** Worm infections in children can present with a variety of signs and symptoms, depending on the type of worm and the severity of the infection. Some common symptoms include.

- **Abdominal pain:** This is a common symptom of many types of worm infections, and can range from mild discomfort to severe cramping.
- **Nausea and vomiting:** These symptoms are often associated with intestinal irritation caused by the worms.

- **Diarrhea:** This can occur due to inflammation of the intestines or the presence of worms in the stool.
- **Itching around the anus:** This is a hallmark symptom of pinworm infection, as the worms lay their eggs around the anus at night.
- **Weight loss:** This can occur due to poor nutrient absorption or loss of appetite caused by the infection.
- **Fatigue:** This can be a result of anemia, which can occur with hookworm infection, or due to the general discomfort caused by the infection.
- **Other symptoms:** Depending on the type of worm, other symptoms may include fever, cough, blood in the stool, and even worms visible in the stool or vomit.

If you notice any of these symptoms in your child, it is important to see a doctor to determine the cause and receive appropriate treatment. Early diagnosis and treatment can help prevent complications and ensure a full recovery.

### Diagnosis

Diagnosing a worm infection in a child often involves a combination of.

- **Medical history:** The doctor will ask about your child's symptoms, travel history, and any potential exposure to contaminated food or water.
  - **Physical examination:** The doctor will examine your child for signs of infection, such as itching around the anus (for pinworms) or signs of anemia.
  - **Stool sample analysis:** This is often the most important diagnostic test. A stool sample can be examined for the presence of worm eggs or adult worms.
  - **Microscopic examination:** A small amount of stool is examined under a microscope to identify worm eggs or larvae.
  - **Scotch tape test:** For pinworm infections, a piece of clear tape is pressed against the anus at night to collect any eggs that may be present. The tape is then examined under a microscope.
  - **Blood tests:** In some cases, blood tests may be performed to check for anemia or other complications associated with worm infections.
- If your child is experiencing symptoms that suggest a possible worm infection, it's crucial to consult a pediatrician for proper diagnosis and treatment.

**Treatment:** Treatment for worm infections in children typically involves medications specifically designed to kill the parasitic worms. The choice of medication will depend on the type of worm infection. Some common medications used to treat worm infections include.

- **Mebendazole:** This is a widely used medication effective against a variety of worm infections, including roundworms, pinworms, hookworms, and whipworms. It's generally safe for children and is often given as a single dose or for a short course of treatment.

- **Albendazole:** Another effective medication for treating various worm infections, including roundworms, hookworms, and tapeworms. It's generally well-tolerated by children.
- **Pyrantel pamoate:** This medication is particularly effective against pinworm infections and is often preferred for children due to its generally mild side effects.

It's crucial to consult a pediatrician for proper diagnosis and treatment. They will determine the most appropriate medication and dosage based on your child's age, weight, and the specific type of worm infection.

In addition to medication, certain hygiene practices are essential to prevent reinfection and ensure successful treatment.

- **Thorough handwashing:** Emphasize the importance of frequent and thorough handwashing, especially after using the bathroom, changing diapers, and before eating.
  - **Keep fingernails short:** Short fingernails can help prevent the spread of worm eggs.
  - **Change underwear and pajamas daily:** Wash them in hot water to kill any remaining eggs.
  - **Clean shared spaces:** Regularly clean and disinfect surfaces that children come into contact with, such as toys, doorknobs, and bathroom fixtures.
- By following these steps and adhering to the prescribed medication, you can effectively treat your child's worm infection and prevent future occurrences.

### CONCLUSION

Worm infections are a common health concern in children, particularly in areas with poor sanitation. These infections can cause a range of symptoms, including abdominal pain, nausea, diarrhea, and itching around the anus. While they can be bothersome and sometimes lead to complications, worm infections are generally treatable with medication and can be prevented through good hygiene practices.

If you suspect your child may have a worm infection, it's important to consult a pediatrician for proper diagnosis and treatment. Early intervention can help alleviate symptoms and prevent potential complications. By emphasizing good hygiene practices and seeking prompt medical attention when needed, you can help protect your child from the discomfort and health risks associated with worm infections.

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