

# **Tinea Capitis... Causes, Prevalence and Treatment**

# What is tinea capitis?

Tinea capitis is caused by a fungal infection of the scalp and hair root, resulting in itching, scaling, and hair loss. The fungus is very contagious and spreads among young school-age children. Treatment includes oral antifungals to eliminate the fungus with a special shampoo to wash the hair in order to prevent transmission. In rare cases, it can cause severe inflammation and permanent scarring and local baldness.

## Symptoms:

- One or several circular spots in which the skin becomes scaly and sensitive.
- Scaled skin becomes red or gray.
- Hair becomes brittle, weak and easily pulled out.
- Sensitive or painful areas on the scalp.

Same signs can appear in other diseases. Therefore, careful diagnosis and confirmation of tinea capitis is needed.

## **Causes and Risk Factors:**

Infection is caused by a fungus called dermatophyte, which attacks the outer skin layer and hairline. This fungus is very contagious and can spread in any of the following ways:

From person to another: Touching a person carrying the fungus, even for a short time, may help transmit the fungus and infection.

From animals: Animals can carry the fungus and transmit it to humans through direct or indirect contact. The fungus spreads among cats, dogs and field animals, especially puppies.

Personal tools: The fungus can transmit without direct contact with another person by moving to and staying on surfaces or objects that were touched by



infected people or animal. The fungus can, therefore, transmit through towels, clothing, bed linens, combs and hairbrushes.

The disease is common among nursery- and school-age children, where transmission is easy due to physical contact between children and use of shared personal tools. There is a high risk of developing tinea capitis in children who have pets, because animals can carry fungi in their bodies without being infected. Poor hygiene and crowded living conditions increase the risk. Even though it is more common in children, it is important to remember that this condition can also occur in adults.

## **Complications:**

In certain cases, the fungus causes an inflammatory reaction in the scalp called a kerion. In this case, yellow bags with purulent fluid drain cause a yellowish rash on the scalp. Heavy hair loss occurs in the inflamed area and the hair becomes easily pulled out. This is caused by an inflammatory reaction that can lead to scars on the scalp and permanent baldness.

#### **Diagnosis:**

Tinea is usually diagnosed by examining the characteristic appearance of the affected area on the scalp. In cases where the diagnosis is not conclusive, a careful microscopic examination can be performed on skin smear samples from the scalp.

#### **Treatment:**

Drugs used in the treatment of tinea capitis are:

**Griseofulvin:** This drug is available in form of syrup and tablets and is effective in eliminating the fungus. Skin allergies are common side effects, so caution should be taken to protect the skin from sun with long clothes and radiation filter.



**Lamisil**: Also known as terbinafine hydrochloride, this drug is also effective. It has some side effects, such as: abdominal pain, diarrhea, rashes and taste changes.

Treatment should be followed for the whole course as prescribed, even if skin signs resolve early.

In addition to drug therapy, it is recommended to use a therapeutic soap (shampoo) to wash the head three times a week. The shampoo contains selenium sulfide, which helps eliminating the fungus spores and thus preventing transmission to others. After applying the shampoo to the head, it should be kept for at least five minutes in order to effectively kill the fungi.

### **Prevention:**

It is difficult to prevent tinea capitis because of its high contagiosity and easy transmission to humans, but maintaining personal hygiene, washing the head regularly and refraining from using shared tools such as towels and combs as well as refraining from touching infected animals, may reduce the risk.

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