

# Cetirizine Hydrochloride

**BRAND NAME: ZYRTEC**

AVAILABLE IN  
5 & 10 mg  
TABLETS  
BOTH CHEWABLE AND  
NON-CHEWABLE

AS WELL AS  
ORAL SYRUP

## BACKGROUND

Histamine is an inflammatory biochemical that causes skin redness, swelling, pain, increased heart rate, and blood pressure drop when it binds to one of many H1 receptors throughout the body. Histamine is an important mediator of allergy in humans, hence a spectacular array of different antihistamines has proliferated. Histamine, perhaps unfortunately, is not as important a mediator of inflammation in pets, which means results of antihistamine therapy are not as reliable in pets, particularly dogs, when it comes to itchiness.

That said, antihistamines are still widely used to assist in controlling of itching in pets as well as people. Also, in pets as well as people the drowsiness side effect of antihistamines has been undesirable and there has been a drive for antihistamines that do not produce drowsiness. Cetirazine is the result of such efforts. It turns out that when hydroxyzine, a popular antihistamine, is metabolized by the body, cetirazine is one of the by-products. Cetirazine is an antihistamine in its own right but does not cross the blood-brain barrier and thus should not produce the drowsiness side effect.

## HOW THIS MEDICATION IS USED

Cetirizine is an antihistamine and it is used for acute inflammatory and allergic conditions such as:

- Vaccination reactions
- Blood transfusion reactions
- Bee stings and insect bites
- Managing itchy skin

In the past, antihistamines have been used more widely in the management of itch and allergy but recent work has not been able to demonstrate a clear positive effect from antihistamines directly, either for acute allergy flare ups or in the long term management of itch.

Antihistamines seem best used concurrently with corticosteroids (such as prednisone) in a more long term setting so as to enable a lower corticosteroid dose to be just as effective as a higher one.

Mast cell tumors are tumors involving cells that contain granules of histamine. Patients with mast cell tumors experience chronic inflammatory symptoms due to circulating histamine. Antihistamines such as diphenhydramine may be helpful given long term though cetirizine could also be used.

Cetirizine is a member of the piperazine class of antihistamines. When different antihistamines are being tried and one appears ineffective, it is felt that the subsequent choice should be of a different class to avoid the likelihood of another failure.

## **SIDE EFFECTS**

Because cetirizine does not cross into the nervous system, side effects common to other antihistamines are rare.

Drowsiness is still reported in 13% of people who take cetirizine.

The biggest problem with long term cetirizine is common to long term use of other antihistamines: the development of tolerance. This means that the body may eventually fail to respond to the medication as well as it did initially. In this event, another antihistamine may be selected and eventually it may be possible to switch back to the original medication.

## **INTERACTIONS WITH OTHER DRUGS**

Cetirizine should not be used with tranquilizing medications. Even though cetirizine was designed not to be sedating on its own, combining it with another medication with sedating properties will yield an additive effect.

## **CONCERNS AND CAUTIONS**

When using an antihistamine to prevent an allergic reaction (such as a vaccine reaction) the antihistamine works best when given prior to the allergen.

This medication will interfere with allergic skin testing. Check with your veterinary dermatologist regarding how far in advance this medication should be withheld.

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There is a formulation of cetirizine called Zyrtec-D which combines cetirizine with pseudoephedrine (a decongestant). This product (as well as similarly formulated generics) are not appropriate for animal use as the pseudoephedrine has toxicity potential.

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