

## Proper care begins with your veterinarian

The tympanum, or ear drum, can be ruptured or dissolved by tissue or microbial enzymes in at least half of all chronic OE cases. As not all medicines are acceptable under these conditions, it is especially important that your veterinarian prescribe a product that will preserve middle and inner ear functions, such as MAXI/GUARD® Zn 4.5 Otic®.

Zn 4.5 Otic contains no steroids or antibiotics and can be safely used when the ear drum is ruptured. Before the first application, make sure the ears are properly cleaned. When applying Zn 4.5 Otic for the first time, flood the ear canal and massage gently. Following initial treatment, only 5-8 drops of Zn 4.5 Otic are required. Each affected ear should be treated once or twice daily until condition is resolved. For home care maintenance or prevention, application should be 1-2 times per week. Please consult your veterinarian.



MAXI/GUARD® Zn 4.5 Otic® 2 oz. and 4 oz.

### Safe and Effective Control of Chronic Yeast Otitis

MAXI/GUARD Zn 4.5 Otic is a scent free, non-staining formulation that controls chronic yeast and staph otitis\*. This product helps calm sensitive and painful ears and helps resolve itching. Zn 4.5 Otic can be used as an adjunct to antibiotic or steroid therapy and helps maintain ears after the initial problems or infections are resolved.

Zn 4.5 Otic is also safe and very effective for all species including dogs, cats and exotics.

\*Mendelsohn CL, et al. Efficacy of Boric-Complexed Zinc and Acetic-Complexed Zinc Otic Preparations for Canine Yeast Otitis Externa. J. Am. An. Hosp. Assn. (JAAHA) 2005; 41:12-21.

# Pet Ear Care



**Understanding Otitis Externa (OE) and Malassezia (Yeast) in treating pet otitis**

**MAXI/GUARD®**  
A Veterinary Gold Standard



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### **What is Otitis Externa (OE)?**

OE is inflammation of the external ear which includes the ear canal, external orifice and pinna or ear flap.

### **How common is OE?**

OE is very common. It is estimated that 20% of dogs (nearly 12 million U.S. dogs) have this disease at some point. Cats may also experience OE, but it is less common.

### **How can one recognize OE?**

OE is recognized by clinical signs of bad ear odor, itching and scratching or rubbing of ears, redness of the ear flap or canal, shaking of head, discharge from ears, sensitive or painful ears, and/or changes in behavior.

### **What are the primary causes of OE?**

Ear disease in pets is mainly caused by allergies (atopic disease, food), parasites (earmites), foreign bodies, trauma, hormonal imbalances or polyps in the ear canal. Allergic disease is the most common cause of OE.

### **What are other important complicating factors?**

OE is often associated with bacteria and/or yeast over-growths which are not primary causes but are complicating factors. Excess moisture (such as from swimming dogs) or hereditary predisposition can also complicate OE. OE may be the only sign of allergies for months to years.

### **How can OE be prevented?**

Clean ears have less of a problem with OE. Examine your pet's ears weekly, checking for odor, excessive black or brown discharge or redness. Under the direction of your veterinarian, clean the ears when necessary, using a veterinary approved cleanser. Never use cotton tipped swabs down in the ear canal. Use of a drying agent such as boric acid can be useful. Alcohol based drying solutions tend to sting sensitive ears. Be gentle when cleaning ears because over-zealous cleaning can damage the canal and actually lead to OE.

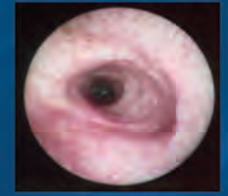
### **What is the role of Malassezia (yeast) in OE?**

Yeast overgrowth is present in 50-80% of OE cases and has a typical 'yeasty' odor associated with it. The ear canal is lined by skin and a small number of yeast organisms in the ear canal is normal and acceptable. When conditions of excess moisture, excess heat, pH changes, and excess wax are present, yeast and/or bacteria can overgrow leading to inflammation. Possible permanent damage or disease may occur if the condition is left untreated. Normal cases of OE, when combined with yeast overgrowth, can result in more severe symptoms, further increasing the pet's discomfort.

## **Otoscopic Ear Canal Pictures**



**Before treatment**



**After treatment**

## **Does your pet...**

- Scratch its ears often?
- Have an unpleasant odor coming from its ears?
- Have a discharge coming from its ears?
- Have red, swollen ear canals?
- Shake its head often?
- Show signs of sensitive/painful ears?

If you answered yes to one or more of the above conditions, please schedule an appointment with your veterinarian soon. Your pet may have Otitis Externa or another condition which requires immediate veterinary care.



**Frequent ear scratching may indicate that your pet has Otitis Externa.**