

ABELIA® Small Pet Otic



For Dogs, Cats
& Small mammals

Safe and Effective Otitis Management · Helps Fight Antibiotic and Azole Resistance

Antimicrobial, restoring, calming, drying and deodorizing otic solution

For small mammals, cats and small breed dogs and for pruritic and very sensitive ears

Introduction

Otitis externa is one of the most common pathologies in dogs, estimated to represent up to 15% of cases seen in the clinic every day. The development of otitis usually is due to a combination of different causes and factors. Primary causes can trigger otitis externa, altering the ear environment and create ideal conditions for producing secondary infections. Secondary causes are those that produce disease in an abnormal or altered ear.

Factors can contribute to or promote otitis externa by altering the structure, function, or physiology of the ear canal. These are subdivided into predisposing and perpetuating factors with examples in the table below.

Primary Causes	Secondary Causes	Predisposing Factors	Perpetuating Factors
Allergies	Bacteria	Anatomical conformation of outer ear	Ear epithelial changes
Autoimmune diseases (e.g. pemphigus)	Yeast (e.g. <i>Malassezia</i> spp)	Excessive moisture	Ear canal changes
Endocrine diseases	Treatment reactions	Ear canal obstruction	Secretory gland changes
Epithelialization disorders	Excessive cleaning with inappropriate solutions	Systemic diseases	Calcification
Foreign bodies		Treatment consequences	Otitis media

Hypersensitivity reactions (atopy, dietary allergy and contact dermatitis) are the primary cause of otitis externa, and among them, atopy seems to be the most common cause of canine chronic otitis. It's estimated that 55% of atopic dogs develop otitis externa and in 3%, otitis externa is the sole clinical sign.

Changes in the ear canal that reduce its lumen, or the presence of water (e.g. swimming dogs) can increase its moisture and lead to inflammation and/or microbial proliferation. *Malassezia pachydermatis* is present in normal ear canals and considered an opportunist pathogen, capable of causing inflammatory changes in the ear. In some atopy cases, the control of secondary infections (especially *Malassezia* spp.) helps to alleviate the clinical symptoms. Otic solutions containing mild detergents or disinfectants are valuable in the treatment of otitis externa and carry fewer potential risks than long-term treatment with antibiotics or glucocorticoids.

Active Ingredients			
Zinc gluconate	1 %	L-lysine	1 %
Boric acid	1 %	Taurine	0.5 %

Also contains: Deionized water, propylene glycol, methylparaben, propylparaben.



2 fl. oz. / 59 ml
4 fl. oz. / 118 ml



Safe for perforated
tympanic membrane

Characteristics

- Product of choice for atopic or allergic animals, for its calming, soothing, drying and yeast control action.
- Otic product of choice for the preventive maintenance of chronic *Malassezia* otitis.
- Antibiotic and azole free:
 - Controls simple otitis without antibiotics and azoles, helping fight antimicrobial resistance.
 - Helps rationalize the use of antibiotics and azoles, preserving their efficacy.
- Stimulates healing of damaged tissues and restores the ear's natural micro-environment.
- Drying action - Corrects and prevents excess moisture of the ear canal that can lead to yeast and bacteria overgrowth.
- Helps fight unpleasant ear odor:
 - Eliminates bacteria that cause odor.
 - Taurine chelates sulfur bonds responsible for malodor.
- Safe:
 - Very low incidence of post-application discomfort.
 - Non-Ototoxic - Safe for use with perforated tympanic membrane.
 - Suitable for frequent and long-term use for maintenance.
- Aqueous, colorless and non-sticking solution:
 - Good distribution even in stenotic or narrowed ear canals.
 - Does not create plugs in hairy animals.
 - Does not stain pet fur, dog beds, clothing, or furniture.
- Can be used alone or to facilitate recommended otic treatments.

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Mechanism of Action

- **Zinc** is an essential factor in more than 300 enzymatic reactions, many of which are involved in the regeneration of the extracellular matrix, healing processes, repair of connective tissue, inflammation, and cellular growth. Topically administered, it has beneficial effects on the healing of wounds.¹
- **Zinc gluconate** contributes to the production of collagen, an essential component of the epithelium.²
- **Boric Acid** has a drying action, a characteristic that makes it particularly useful when the ear canal is moist. It has also been shown to be effective against *Malassezia* infections.
- In vitro and in vivo studies in dogs prove the **efficacy of Boric Acid** against the most common ear pathogens: *Malassezia* spp, *Staphylococcus intermedius*, *Pseudomonas aeruginosa*, etc.^{3,4,5}
- **Taurine** chelates sulfur bonds and oxidizes volatile fatty acids responsible for malodor.
- **Taurine and L-lysine** allow zinc gluconate to reach deeper layers of the skin, accelerating regeneration.

Recommended Use

- Especially for small and miniature breed dogs, cats, kittens, small mammals and exotics.
- Ideal for very damaged, sensitive or itchy ears (canal and pinnae), to help freshen, dry, soothe and calm.
- For maintenance/preventative treatment of allergic pets with chronic *Malassezia* spp. otitis.
- For first line treatment of non-complicated *Malassezia* and yeast/bacterial otitis.
- For support therapy for complicated otitis.
- To restore ear canals with disrupted epithelium and excess debilitating moisture.
- For regenerating ear canal epithelium after elimination of ear mites in rabbits, ferrets, and kittens.

Directions for Use

Apply 5-10 drops depending on size of ear canal. Increase as needed or in larger animals. Gently massage base of ear canal to loosen debris. Wipe away excess with soft absorbent material.

- **For first line of treatment of acute simple otitis** – Apply twice a day for 7 to 10 days, or until resolution.
- **For cases of complicated otitis** – Apply once a day until resolution and follow by any needed Rx product (antibiotic/antifungal/steroid solution) at least 2 hours later. Due to its antimicrobial, drying and protective properties, ABELIA® Small Pet Otic prepares the ear canal for optimal antibiotic/antifungal treatment.
- **For maintenance or routine flushing in chronic otitis** – Apply once a week as a drying and antiseptic agent.



Cautions: Do not use in eyes.

Effectiveness

Mendelsohn, Colleen; Griffin, Craig; Rosenkrantz, Wayne; Brown, Larry; Boord, Mona. Efficacy of Boric-Complexed Zinc and Acetic-Complexed Zinc Otic Preparations for Canine Yeast Otitis Externa. Journal AAHA, Jan/Feb 2005, 41:12-21

References

- ¹ Agren MS. Studies on zinc in wound healing. Acta Derm Venereol Suppl 1990;154:1-36.
- ² Agren MS, Stromberg HE. Topical treatment of pressure ulcers. A randomized comparative trial of Varidase and zinc oxide. Scand J Plast Reconstr Surg 1985;19:97-100.
- ³ Benson CE. Susceptibility of selected otitis externa pathogens to individual and mixtures of acetic and boric acids. Proc Annu Am Acad Vet Derm/Am Coll Vet Derm 1998;14:121.
- ⁴ Gotthelf LN, Young SE. New treatment of *Malassezia* otitis externa in dogs. Vet Forum 1997;14:46-53
- ⁵ Bassett RJ, Burton GG, Robson DC, Hepworth G. Efficacy of an acetic acid and boric acid ear cleaning solution for the treatment and prophylaxis of *Malassezia* sp. Otitis Externa. Aust Vet Practit 2004 Jun;34(2):79-82