

# the ITCH

## Dermatology Team

Department of  
Small Animal  
Clinical Sciences

Alison Diesel,  
DVM, DACVD

Adam P. Patterson,  
DVM, DACVD

Amanda Friedeck,  
BS, CVA

Department of  
Veterinary Pathobiology

Joanne Mansell,  
DVM, MS, DACVP

Aline Rodrigues Hoffmann,  
DVM, PhD, DACVP

## Clinical Appointments

Small Animal Dermatology  
979-845-2351

Equine Dermatology  
979-845-3541

For more  
information, please  
visit our website at:

[vetmed.tamu.edu/  
services/dermatology](http://vetmed.tamu.edu/services/dermatology)



Figure 1: Hold the ear pinna perfectly vertical for cleaning.

## Otitis

TAMU Dermatology offers complete assessment of canine, feline, and equine ears through the use of video otoscopy, CT, and MRI. The integration of these diagnostic capabilities, along with our expertise in ear disease, otic cytology, myringotomy, bullae culture and irrigation, and otic biopsy makes us well-equipped to meet the needs of your referred patients. We are “hear” for you.

## Techniques for Effective Ear Cleaning

Ear disease tends to be one of the more frustrating conditions to manage for many veterinary practitioners. Likewise, it is a frustrating and wearisome problem for owners of pets with chronic or recurrent ear problems. For many patients, however, this relapsing and remitting disease can be effectively managed, and perhaps prevented, before end-stage proliferative changes results in medical treatment failure. How is this possible?—with at-home otic canal flushing. Since many patients with ear disease will object to the application of any topical otic treatments, we must provide our clients with helpful tidbits to make the act of ear flushing as easy as possible. Importantly, we believe every client should be shown how to flush their dog’s ears before the


patient leaves the office. This demonstration alone can go a long way to improving compliance, which ultimately improves the pet’s otic health. Frequency of ear flushing will be based on multiple factors including patient tolerance, otoscopic features, and otic cytological findings, but usually it should occur no more than twice weekly. Here are some tips and tricks to share with owners during your exam room consultation when confronted with otitis. Demonstrating the technique of proper ear flushing can be conveyed through other members of your veterinary health care team, allowing you to move to the next exam room.

**Tip #1:** When preparing to clean an ear, make sure to hold the pinna perfectly vertical, gently pulling up on the ear flap. Not only will this straighten out the L-shaped ear canal for better application and cleaning, but it is more comfortable for the patient. Pulling back on the pinna is painful and causes undue discomfort, akin to a “too tight” ponytail. *See Figure 1.*



Figure 2: Make sure not to touch the tip of the ear flush bottle to the ear. Hold the bottle close, but not touching. Install a generous amount of solution into the ear canal (should be able to see a pool of product at the canal opening).

**Tip #2:** Make sure not to touch the tip of the bottle of ear flush to the ear canal itself. This will not only help prevent transmission of infectious material from one ear to the other or even into the bottle itself, but it will also avoid patient discomfort. The bottle should be placed near, but not touching, the canal opening. A generous amount of flush should be instilled into the canal allowing the product to fill the canal entirely. The owner should see solution pooling at the canal opening. *See Figure 2.*

**Tip #3:** After ear flush has been instilled into the canal, the canal should be allowed to return 



## Did you know?

- Texas A&M University Veterinary Medical Teaching Hospital has 2 full time Diplomates of the American College of Veterinary Dermatology specializing in the diagnosis and treatment of skin, ears, claws, and allergy in both small and large companion animals
- Two dermatopathologists who are Diplomates of the American College of Veterinary Pathology work side-by-side with the clinical dermatologists to diagnose skin disease
- Downloadable referral and dermatological history forms along with other information is available to you and your clients at <http://vet-med.tamu.edu/services/dermatology>
- You can send skin biopsies from your practice for interpretation by our dermatopathologists by following the instructions at <http://vetmed.tamu.edu/vtspb/professional-services/dermatopathology>



Figure 3: Massage the base of the pinnae gently for 30-60 seconds to allow adequate delivery of the cleaning solution.

to its normal position. Next, the base of the canal is gently massaged for 30-60 seconds. This helps dislodge debris adhered to the canal surface. Think of ear cleaning solution as “liquid Q-tip” used to remove excess cerumen, infectious exudate, and debris along the length of the canal. **See Figure 3.**

**Tip #4:** After allowing the patient to shake his or her head, any excess debris and solution should be gently wiped away from the canal opening with facial tissue or a cotton ball; cotton tipped applicators (CTA) should NOT be used when cleaning ears! Not only can CTAs push debris further into the ear canal, they can also cause trauma to the otic epithelium, especially if the canal is already in an inflamed/friable state. Aggressive use of CTAs for ear cleaning can also result in an otic foreign body if the tip breaks off during swabbing. **See Figure 4.**

**Tip #5:** If the patient is excessively fearful of the bottle of ear flush, an alternative method may be used for effective ear cleaning. With this technique, a cotton ball should be thoroughly saturated with the cleaning solution, and then gently placed into the canal opening (not deep in the canal). By gently squeezing the cotton ball while massaging the canal base, otic solution will be delivered along the entire length of the canal. Dislodged debris and exudate will be absorbed by the cotton ball when removed. Importantly, make sure the cotton ball is removed in its entirety from the canal. This process can be repeated as necessary until minimal debris is present.

### Choosing an Appropriate Ear Cleaner

When choosing an ear cleaner for a particular patient, it is helpful to ask: “What do I want the product to do?” Does the product need to remove wax allowing for better topical penetration of other otic treatments, to help treat an infection, or to prevent additional microbial overgrowth as part of a “mainte-



Figure 4: Wipe excess solution and debris with a cotton ball or gauze pad; do not use CTA as they can lead to undue trauma to the ear canal.

nance” strategy for chronic otitis? The following table will help you better categorize specific ingredients commonly found in veterinary otic cleansers. Most “routine” at-home general cleaners would fall under the *surfactants* and *acidifying* categories.



#### Ingredients found in commonly used ear cleansers<sup>1</sup>

Cerumenolytics	Surfactants/wax softeners	Detergents/emulsifiers
	Propylene glycol	Squalene
	Mineral oil	Diocetyl sodium sulfasuccinate (DSS) <sup>2</sup>
	Lanolin	
	Salicylic acid	
	Docusate sodium	
	Phytosphingosine	
	Acetic acid	
pH adjusters	Acidifying <sup>3</sup>	Alkalinizing
	Acetic acid	Tris-EDTA <sup>4</sup>
	Boric acid	
	Salicylic acid	
	Benzoic acid	
	Malic acid	
	Citric acid	
Antimicrobial	Chlorhexidine <sup>5</sup> , ketoconazole, tris-EDTA, PCMX, lactoperoxidase, lactoferrin, phytosphingosine, saccharides <sup>6</sup> , alcohols, acids	
Otic barrier repair	Lactic acid, glycerin, salicylic acid, ceramides <sup>7</sup> , phytosphingosine	

<sup>1</sup> Read precautionary product label statements including the potential for ototoxicity.

<sup>2</sup> Only for in-hospital use since DSS must be copiously irrigated out of canal.

<sup>3</sup> Usually found in most routine ear cleansers and often have mild desiccant properties.

<sup>4</sup> Tris-EDTA is helpful for gram-negative ‘rod’ infections such as *Pseudomonas* spp. It is also a good vehicle and buffer for other ingredients like fluoroquinolones, chlorhexidine, and ketoconazole.

<sup>5</sup> Ototoxicity has not been shown with products containing 0.2% or less of chlorhexidine.

<sup>6</sup> Simple sugars bind to bacterial cell surface receptors preventing organisms from adhering to corneocytes.

<sup>7</sup> Ceramides and phytosphingosine help restore the orderly arrangement of lipid lamellae in the intercellular space, thus improving the integrity of the epidermal barrier.