

Rationale For *Otisol*[™] & *Otisol-O*[™]

The Skin: An Absorbing Organ

The skin is not a mere barrier. It is a highly effective absorbing organ. Various systemic medications such as insulin, hormones, pesticides, morphine and cardiac glycosides are now being administered by transdermal topical patches. Toxicities and sensitivities to topical cosmetics, pollutants and industrial chemicals are surfacing with increasing frequency. The topical administration of dermatologic, otologic and ophthalmologic preparations can create adverse systemic side effects such as adrenal crisis from corticosteroids in the eye, and methemoglobinemia from topical benzocaine. Many veterinarians who have used topical steroids for various skin eczematous conditions notice increased water consumption, appetite changes and weight changes in patients, suggestive of negative feedback to the adrenal gland.



PURPOSE:

To help keep ears clean, stimulate tissue health, and create an epidermal environment unfavorable to pathogenic growth using natural extracts and emulsifiers. Soothing, non-irritating and deodorizing.

INGREDIENTS:



OTISOL[™]: Distilled Water, Copper Chelate of Chlorophyll, Aloe vera, MSM (Methyl Sulfonyl Methane), Arnica, Essential Oils of Eucalyptus, Peppermint, Cajeput, Juniper, Wintergreen, Clove, and Menthol, Hydrogen Peroxide, Citrus Seed Extract. Stabilized with Wysong Natural Oxherphol[™] Antioxidant.

OTISOL-O[™]: Jojoba Oil, Olive Oil, Copper Chelate of Chlorophyll, Aloe vera, Arnica, Essential Oils of Eucalyptus, Peppermint, Cajeput, Juniper, Wintergreen, Clove, and Menthol, Tea Tree Oil, Citrus Seed Extract. Stabilized with Wysong Natural Oxherphol[™] Antioxidant.



DIRECTIONS:

Shake well before using. Instill several drops into the ear 2-3 times daily. Massage thoroughly into ear canal and remove any excess with cotton or tissue. Repeat if ears are excessively dirty. Use before and after bathing if ears are particularly sensitive. For routine ear cleansing, use once weekly.

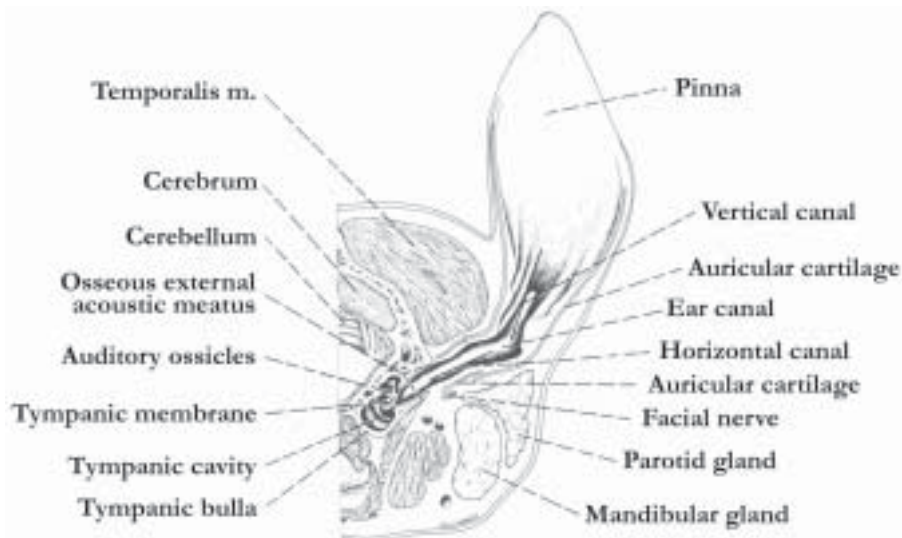
What is put on the skin, in the eye, or in the ear is similar to giving a slow I.V. drip of the same thing. A new approach to product selection is necessary. Xenobiotic (foreign to biological experience) drugs and chemicals should be replaced with more natural compounds without the potential contraindications.

The safety of natural substances in treatment (biotherapy) is due to their link to biological history. Common biochemical patterns exist throughout nature and thus it is more likely that adaptation to potential natural toxins has occurred. Although anything can be toxic given the appropriate dose, natural substances are a part of the outside world that is phylogenetically programmed with natural creatures. The genome is simply an internal code of the outside world.

This philosophical perspective not only intuitively makes sense, but is found true in practice. Natural compounds are usually easily detoxified, can exert therapeutic action and are biodegradable, whereas xenobiotics are often highly toxic, exert therapy at the expense of a laundry list of contraindications and persist for years in the environment.

Natural plant extracts provide an excellent source of effective medications. In fact, over one out of every four prescriptions contains glycosides, alkaloids and vitamins derived directly from plant sources. Their effectiveness is not in question. That they are not commonly advocated in medicine today is not an indication of their lack of effectiveness, but a lack of promotion. Promotion requires money and only those compounds that can be isolated, synthesized and patented provide motivation for producers. The effectiveness of botanical products and their potential for therapeutic use is especially evident in the increasing interest expressed by traditional medical organizations. For example, the N.C.I. (National Cancer

The Canine/Feline Ear Canal



Institute) has a natural medicines division, which has allocated millions for the search for anticancer botanicals. The N.I.H. (National Institute of Health) is also funding millions for plant-medicine research, particularly in the rapidly disappearing tropical rain forests.

Ear Problems

Many ear problems in pets can result in an excessive accumulation of ear wax, exudate, hair and debris. The ear canal in cats and dogs does not enter straight horizontally to the ear drum as in humans. Instead, it is shaped somewhat like a saxophone (see diagram above). In order to reach the ear drum, first go in horizontally, then vertically, make a 90-degree turn, and go horizontally again.

This configuration can result in accumulations deep down within the canal that are not easily removed. Infection from bacteria, molds and parasites can cause an incredible amount of pus and ear wax production in the canal.

To assist in the removal of such material and the restoration of the ear canal tissues to health, the diet should be supplemented with ample amounts of essential fatty acids (see Nutritious Oils monograph). This will decrease the viscosity of the ear exudate and facilitate

its removal, as well as provide a powerful anti-inflammatory effect. Additionally, Wysong has developed two ear products that can be used to help restore health: Otisol™ and Otisol-O™.

Uses of Otisol & Otisol-O

Sustaining health requires disease resistance from within the body itself, not simply the absence of microbes. Otisol and Otisol-O are designed to stimulate epithelial healing and resistance. This is in contrast to other otologic products, which attack microbes with various chemical agents that not only devitalize tissue, but actually have the potential for generating resistant pathogenic strains.

Otisol is a water-soluble blend of natural extracts for use in routine ear cleaning. It is designed for use in animals without serious ear disorders. Otisol is very effective in preventing the buildup of dirt and residue which provide a medium for pathogenic growth.

Otisol-O is an oil-soluble version of Otisol. It is designed to be used where exudate and waxes have accumulated in the ear and where cleaning, anti-inflammatory, antimicrobial actions and tissue healing are needed.

Otisol and Otisol-O are not made with purified, standard, mass-produced pharmaceutical preparations such as corticosteroids, antibiotics, or coal tar derivatives. Otisol and Otisol-O offer safe, effective, preventive and therapeutic advantages.

Ingredients

The ingredients used in both these otologic products have been chosen for their documented therapeutic action. The following is a brief description of ingredients which make Otisol and Otisol-O uniquely effective:

- **Aloe Oil (*Aloe Vera*):** Aloe oil is obtained from the inner portion of aloe leaves and is a natural cleanser and moisturizer that penetrates skin tissue. It has approximately the same pH as the skin, is nonirritating, and is hypoallergenic. *Aloe vera* has been shown to stimulate rapid granulation and formation of new tissue while dilating capillaries, which increases the blood flow to the injured area. Aloe has also been shown to act as an antipyretic, anti-inflammatory and antipruritic agent. *Aloe vera* has been used for centuries to treat skin disorders such as burns, skin ulcers, and dermatitis.

- **Organic Methylated Sulfur (MSM):** Sulfur is the fourth most plentiful mineral in the body. It is found in every cell of humans and animals. MSM provides this mineral in a natural, easily assimilated form. Because it is so plentiful in the body, sulfur is involved in nearly every cellular process. It is this property that is the root of organic methylated sulfur's ability to promote and maintain otological health. First, it functions to soften and preserve the connective tissue pliancy of the delicate skin of the ear. MSM also acts to decrease inflammation and pain associated with infection, while working to inhibit and kill infectious microorganisms. Additionally, it aids wound healing.

- **Arnica (*Arnica montana*):** Arnica is made from a perennial called Leopard's Bane, indigenous to the mountainous regions of the U.S. and Europe. While the flower heads are most commonly used, the entire plant may be used externally. Arnica contains fatty acids, aromatic compounds, resins, carotenoids and xanthophyll. Its oil is prepared in a fluid extract and is used topically to reduce inflammation, joint stiffness, paralysis, and bruising. It has also been shown to have antibiotic activity.

- **Cajeput (*Melaleuca leucodendra*):** Cajeput is a volatile oil distilled from the leaves and twigs of the East Indian plant *Melaleuca leucodendra*. Along with its capabilities as a healing local anesthetic, cajeput is very aromatic and has astringent, antiseptic and counter-irritant capabilities.

- **Chlorophyllin:** Chlorophyllin is a water-soluble copper chelate of chlorophyll. It has excellent deodorizing capabilities, both internally and externally. Since 1956, chlorophyllin has been used externally to treat the strong odors of ulcers, fistulas, and infected wounds.

- **Cloves (*Eugenia aromatica*):** The dried flower buds of cloves are used to produce the fragrant essential oil used in Otisol/Otisol-O. Cloves contain a substance called eugenol, which is a powerful germicide and local anesthetic. Cloves also have insecticidal and antioxidant properties.

- **Eucalyptus (*Eucalyptus globulus*):** Eucalyptus is a pleasant smelling aromatic compound that has been shown to have antiseptic properties.

- **Jojoba Oil (*Simmondsia chinensis*):** While jojoba is generally referred to as an oil, chemically it is a wax wherein a long chain fatty acid is linked to a long chain monounsaturated fatty alcohol. Because of its unique chemical structure, jojoba is very stable

and resistant to oxidative rancidity; it may be stored for years with no fatty ester changes. Jojoba's composition also allows for superb spreadability and absorption into the skin, leaving a non-oily after feel which makes it an excellent emollient and cerumen solvent.

- **Juniper (*Juniperus oxycedrus*):** Juniper is an evergreen shrub with a variety of uses. Its fruit contains the principal flavoring agent for gin, and internally acts as a diuretic. Topically, it has antiseptic qualities and also acts as a nerve stimulant, decreasing healing time. Juniper is beneficial in alleviating symptoms of psoriasis and other skin diseases, and is also used as an insecticide.

- **Olive Oil (*Olea europea*):** Extra virgin olive oil is used as a base for Otisol-O because it is a mono-unsaturated fatty acid oil and thus more stable and more resistant to oxidative rancidity than polyunsaturated oils. Olive oil is currently used as a base for children's ear remedies and has been shown to be beneficial when applied externally to bites, burns, sprains, and other topical irritations. The extra virgin oil from the first pressing is additionally rich in vitamins and natural antioxidants.

- **Vitamin E (alpha tocopherol):** Vitamin E protects the integrity of the cell membrane and cellular contents. It is therefore essential for the normal function of every cell, every tissue and every organ in the body. There is practically no condition, normal or abnormal, in which vitamin E is not directly involved. Vitamin E has been shown to be absorbed by tissues under skin, down to the periosteum of the bone. This property, along with its ability to reduce oxygen need in tissues, allows injured tissues to heal completely and rapidly. The healing effect of vitamin E on scar tissue is of the utmost importance in wounds and burns since it usually prevents blistering, infections and toxic reactions from killed cells.

Vitamin E has been shown to exhibit anti-inflammatory, antiviral, and antioxidant properties.

- **Peppermint (*Mentha piperita*):** Peppermint is a natural hybrid of spearmint. Peppermint is an antiseptic and antibacterial agent. Over 30 pathogenic microorganisms are inhibited by its presence. Peppermint is also anti-inflammatory in nature.



Mentha piperita
(Peppermint)

- **Menthol:** Menthol is a secondary alcohol derived from peppermint. Like peppermint, it is aromatic and antiseptic.

- **Wintergreen (*Baultheria procumbens*):** Wintergreen, while having a pleasant aroma, also has antiseptic capabilities which have been used in poultices and treatments for eczema.

- **Citrus Seed Extract:** A highly concentrated, broad-spectrum antimicrobial that has been found to be effective against more than 800 bacterial and viral strains, 100 strains of fungus, and yeasts, as well as a variety of single-celled and multi-celled organisms. The rich supply of bioflavonoids in Citrus Seed Extract prevents the uptake of crucial amino acids by the microbe's cytoplasmic membrane, thus inactivating the pathogen. Citrus Seed Extract has been proven to be ten to 100 times more effective than common synthetic antimicrobials.

- **Wysong Oxherphol™:** Oxidation triggers the formation of free radicals, highly reactive and unstable chemical species that can alter a number of biochemical pathways. Derived from vitamin E tocopherol epimers, fat-soluble vitamin C, organic chelators and natural botanical oleoresins, Oxherphol

is unique in that it is an all-natural antioxidant which has proven to be as or more effective than commercial chemical synthetics, which are potential health hazards.

Directions for Use

When putting Otisol in the ears, hold the tip of the ear (the pinna) and pull it up vertically to allow the ear drops to run down into the vertical part of the ear canal (see diagram on page 2). While still holding the ear flap vertically, gently grasp the funnel-shaped

auricular cartilage you can feel through the skin underneath the ear opening and massage it to allow the medication to work down into the ear canal. This will help ensure Otisol gets deep into the ear canal, and will prevent the drops from making a decorative pattern on your walls when the animal shakes its head and the centrifugal force propels the drops out of the ear.

For greatest health, use in conjunction with the entire Wysong Optimal Health Program for Animals, which

includes supplements, rotating through the various diets, and whole fresh foods to provide healthy variety.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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