

Skin, Coat & Ear Health

There are many factors that can contribute to skin & ear issues including improper grooming, parasites, environmental allergies, food allergies and endocrine disease. Below are the steps we take when we faced with helping a Newf with skin, coat and ear conditions. The first 4 points are the steps we take right away and find this route typically results in success. If we are still battling skin issues, despite having taken these steps, we start to investigate further to determine the root causes.

At the end is a list of our favourite products we have found work best when dealing with Newfs and skin issues, as well as links for more resources on skin disease and allergies.

Veterinarian Exam

A thorough veterinary examination is one of the first steps to take to get an overall health assessment of your dog

- **Skin, coat & ears:** a veterinarian will check the skin, coat & ears looking for any signs of parasites, skin lesions/trauma, fur loss, thinning or dullness of the coat and signs of infections & irritation. If there are skin lesions or signs of infection a sample of the skin cells & debris by means of a swab or clear tape should be taken to evaluate for bacteria, yeast & inflammation and often a skin scraping should be done as well to evaluate for certain parasites.



Bathing and topical treatment made a huge difference for Kera

In cases where there is a history of chronic infections that don't resolve with treatment or come back quickly a culture of the affected area is advised to determine what bacteria/yeast is present and if it is showing resistance to antibiotics. If there are signs of bacterial or yeast infections treatment should start right away which typically includes medicated baths, topical ointments, sprays and/or rinses as well.

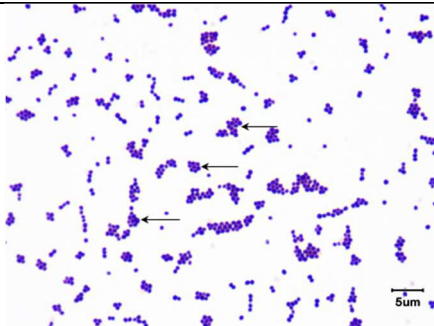


Fiona required antibiotics, daily bathing and topical treatment between baths to clear her

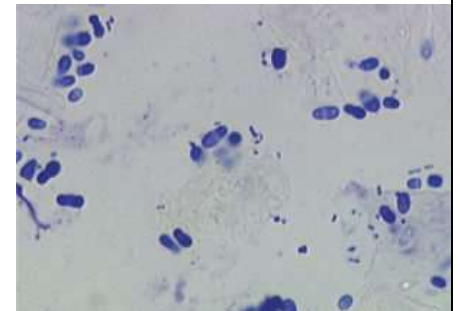
Occasionally if the infection is bad enough oral antibiotic and/or antifungal treatment may be recommended.



A culture of this ear revealed an antibiotic resistant infection, and helped us select the more appropriate treatment option.



Microscopic view of an ear swab containing bacteria from an ear



Microscopic view of an ear swab containing yeast from an ear

- **Body Condition:** The overall body condition of your dog will be assessed along with their age & energy level, all of which can sometimes point towards certain medical conditions that coincide with skin disease (ie. Dogs that have a low thyroid level often have skin conditions, are overweight and have decreased energy)
- **Blood Testing:** A blood panel including a complete blood count, chemistry panel and thyroid level are recommended as they are important in assessing organ function, as well as overall health & immune status. There are different tests that can be done for the thyroid, at minimum a Free T4 level is recommended. If hypothyroid disease is a strong suspicion or if the free T4 test comes back with a “low normal” result, a thyroid panel that includes additional thyroid factor levels such as TSH, thyroid autoantibodies and the free T4 level by a special & precise method called Equilibrium Dialysis may be recommended. Alternatively if you have the option of having your veterinarian draw a blood sample and send the serum to Hemopet labs in the US, the company’s doctor; Dr. Dodds provides specific results based on age, sex & breed and can further advise dosages for supplementation should it be warranted.



Skin issues caused by poor grooming, thyroid dysfunction and allergies

Grooming

Regular grooming is essential in maintaining and evaluating your Newf’s skin & coat

- combing fur down to the skin, removing dead undercoat and ensuring coat is free of mats is imperative and also facilitates regular close evaluation of the skin for dryness/flaking, signs of irritation/infection, fur loss, and parasites such fleas & ticks.
- Regular bathing with a shampoo catered to your dogs’ needs is important to remove dirt & debris, excess oil, dead skin & crusts.
- Proper & thorough drying of a wet or damp Newf is ESSENTIAL! A high speed blower is a huge expense, but very much worth the cost in time & effectiveness and a good quality blower typically last a lifetime.



Hair loss due to lack of grooming and living in unsanitary conditions

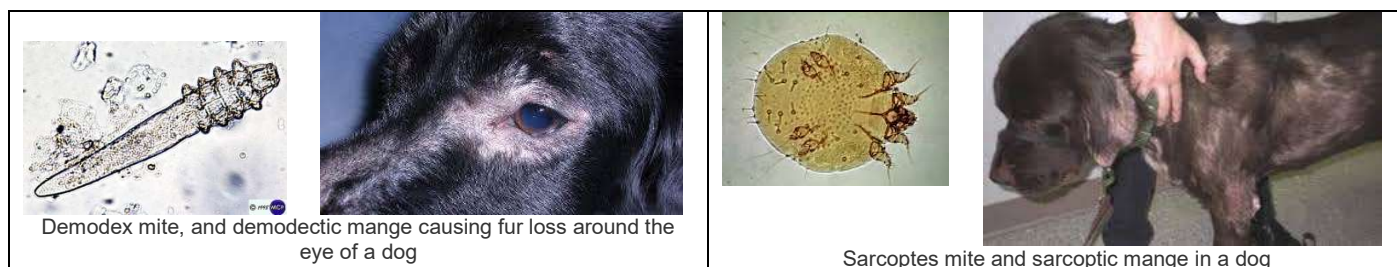
Parasites

Parasites can wreak havoc on your dogs’ skin & coat, so regular bug checks, prompt treatment +/- prevention is crucial. The most common parasites that contribute to skin issues and itchiness that we have seen are fleas & mites, though it is possible for your dog to acquire lice.

- **Fleas** are a common and nasty parasite, that feed on pets by biting and taking a blood meal. Not only are these bites itchy & irritating but some dogs are actually allergic to the saliva of the fleas (FAD – flea allergy dermatitis) where even ONE flea bite can cause a severe itchy allergic reaction. The itchiness caused by flea bites even non-FAD dogs results in excessive scratching, biting even chewing of the skin which often causes secondary bacterial skin infections. In severe cases, flea infestations left untreated in a pet (even a big Newf!) can actually cause anemia (severely low red blood cells). Fleas are visible with the naked eye and are typically found deep in the fur close to the skin, and like to hang out around the rump/tail region the most. Often their feces or “flea dirt” can be found on the skin as well, which when combed out & rubbed into a damp white Kleenex/paper towel will produce a rust/blood colour. Treatment and prevention (especially for dogs with FAD) of fleas can be found in topical and/or oral formulations from your veterinarian or holistic veterinarian.



- **Mites** are a less common type of parasite that can cause a whole lot of problems for your dog. Mites like to burrow down into the skin of your dog and signs typically include fur loss, itchiness and sometimes red & inflamed skin and secondary bacterial skin infections. Sarcoptic & Demodectic mange are the most common types of skin disease caused by mites that affect dogs; skin scrapings performed by your veterinarian are required to diagnose & treat them.
 - **Sarcoptic mange** also known as "Scabies" is **highly contagious and zoonotic** (transmissible to humans) mite infestation, so prompt diagnosis and treatment is crucial.
 - **Demodectic mange** is not contagious or zoonotic (in fact all dogs & humans have these types of mites normally living in their skin!), and often doesn't require any treatment. This type of mange most commonly arises when the dogs immune system is suppressed or under stress, and is most common in puppies and dogs >1 year of age.



Diet

All newfs that come into our care are switched to Orijen 6-Fish or Acana Pacifica grain free fish-based diets. We have found these diets to be optimal for Newfs providing them with balanced nutrition and lots of omega fatty acids (which are essential for optimal skin & coat health). The switch to one of these excellent fish based diets often does the trick with many Newfs with skin conditions. That being said, some dogs continue to have some issues with their skin & coat and occasionally other signs/symptoms as well that can raise suspicions about possible food and/or environmental allergies, at which time further investigation may be warranted.



Food Allergies

Food allergies arise when your dog's immune system develops a sensitivity to one or more food items which later results in an allergic reaction to that food item(s) when it's introduced again or continued to be fed. The most common food allergies in dogs are to beef, chicken, dairy, lamb, wheat & corn-based products.



Luna was suffering from flea bite dermatitis and food allergies, a very simple fix

- **Clinical Signs:** The most common clinical signs of food allergies are non-seasonal itching that often causes secondary bacterial and/or yeast infections and adverse gastrointestinal signs (ie. vomiting, soft stool to diarrhea, flatulence, voluminous and/or mucousy stools). The most commonly affected areas of the body where issues from food allergies arise include the “Ears, Feet & Rears”, lip margins and along the dorsum (along the back from the base of the tail to the base of the neck), which can present as:
 - Chronic recurrent ear infections
 - Red, itchy, irritated skin between toes & paw pads
 - Itchy irritation around the anus and/or vulva area causing scooting, anal gland issues and sometimes urinary tract infections
 - Itchy, moist, irritated areas around the lips (usually the lower lips)
 - Itchy, irritated skin along the back from rump to base of neck, often with pyoderma & lesions (bacterial and or yeast crusts, pustules etc)
- **Age of Onset:** Although dogs CAN develop food allergies at any point in their life, the typical age of onset is less than one year of age and over 6 years of age.
- **Diagnosing & Treating Food Allergies:** The ONLY reliable way to diagnose a food allergy is by doing a 100% restricted dietary food trial.
 - **Dietary Food Trial:** This involves choosing a food with one protein source that your dog has never been fed before, often a “novel” protein (ie. Rabbit, kangaroo, crocodile). A strict dietary trial can be accomplished with a veterinary novel protein kibble and/or canned diet (ie. Rayne Rabbit, Kangaroo & Crocodile formulas), homecooked balanced diets (ie. Hilary's Complete & Balanced Novel Protein recipes), or with a home prepared raw food diet. This food must be fed to your dog and NOTHING else (no treats, food toppers, vegetables, human foods, or supplements) unless it matches the ingredient list of the novel food you are feeding. If after 4 weeks of a strict dietary trail, you see 50% or more improvement in your dog's skin/ear conditions, this is diagnostic in proving an allergy to a previously fed food item. At this time, you can either choose to continue feeding only this diet long term with no other food items offered, or you can choose to “challenge” the trial by starting to introduce ONE food item at a time, in 2 week intervals, and monitor your dog for an allergic response. This can help point towards what, more specifically, what your dog is allergic to so that you can feed more of a variety if desired while avoiding known food allergens.
 - **Blood, Saliva & Hair pluck testing:** These methods are NOT recommended as they are NOT accurate, can be costly & result in many false positives and negatives.
- **Cross reactivity** allergic reactions occur when the proteins in one substance (ie. pollen) are similar to the proteins found in another substance (ie food). This is important consideration if your dog suffers from both environmental allergies and food allergies, because feeding certain foods that your dog isn't necessarily directly allergic to can cause an allergic reaction because of how similar it is to the plant protein (ie. Feeding banana can cause a cross reactivity reaction if your dogs is allergic to ragweed, as well as apples & birch trees, peanuts & orchard grass).

Environmental Allergies

Environmental allergies arise when a dog's immune system develops a sensitivity to certain proteins in their environment, which later when exposure to those proteins is repeated, it results in an allergic reaction. Possible environmental allergens can range from grasses, weeds, pollens, trees, dust mites and molds all of which can be found both outside and in the home, making diagnosing & managing a dog with sensitivities to them quite tricky.

- **Clinical Signs:** The most common clinical signs of environmental allergies are seasonal itching & inflamed/irritated skin that typically results in secondary bacterial and/or yeast infections, sneezing +/- discharge from the eyes and occasionally coughing. The most commonly affected areas of the body where issues from environmental allergies arise are the skin where there is less fur coverage such as the inguinal/groin area, insides of hind legs, along the ventrum (belly & chest), arm pits, feet & upper respiratory tract.
- **Age of Onset:** The typical age of onset for environmental allergies is between 1 to 6 years of age.
- **Diagnosing Environmental Allergies:**
 - **Intradermal Skin Testing** is the “gold standard” for diagnosing environmental allergies. This testing is performed by veterinary dermatologists and involves injecting a very small amount of various allergens under the skin, waiting a specific amount of time, then measuring the visual reaction in the skin. This reaction is then compared to a measurement chart and a number is assigned to the allergen that describes the severity of the reaction (ie. 1+, 2+, 3+). This type of testing is the most sensitive to picking up allergic responses.
 - **Serum Allergy Testing** is another method used to detect environmental allergies. With this testing it can often be performed at your regular veterinarian's office, as all that is required is a blood sample. The serum from your dog's blood is sent to a lab and tested for reactivity against allergens. The most common labs with the most research & reliability in testing include VARL, Greer/Idexx and Heska.
- **Treatment of Environmental Allergies:** If intradermal or Serum Allergy testing has been performed, the best recommended course of action is to continue forward with immunotherapy or “Allergy Shots”.
 - **Allergy shots** involve having a specific serum formulated, from the same place where the allergy testing was performed, that contains the specific allergens your dog is allergic to. This serum works similar to a vaccine where specific amounts of the serum or allergens are injected under the skin, in gradually increasing doses, and your dog's body develops an immunity or tolerance to the allergen. In time, when your dog is exposed to naturally occurring allergens, their body will be less sensitive & reactive to them, resulting in less clinical signs.
 - **Avoidance** of known or suspected allergens is another key step in managing environmental allergies though it can get quite difficult depending on the offending allergen. If your dog is allergic to lots of grasses, ensuring they are kept indoors when lawns are being freshly cut can help, as well as wiping off their feet/contact sites & frequent bathing/rinses if they have been out & around common allergens. If your dog is allergic to molds ensuring you have a dehumidifier in their most commonly inhabited areas and keeping the humidity levels low can help slow mold growth, +/- use of a HEPA filtered air purifier. Frequent laundering of bedding, vacuuming, use of air purifiers can help reduce dust mite & mold counts. In extremely sensitive dogs, the use of physical barriers (between skin & allergens) such as booties, a t-shirt and/or an E-collar can help when allergens are at their peak.

The Importance of Treating the Whole Dog

The importance of going through all of the above steps to determine as accurately as possible the root causes of any dogs skin, coat & ear conditions is imperative and will provide you and your dog with the best foundation towards a happy & itch-free future. It is however equally as important to treat the secondary ailments that so often arise from allergies & skin disease such as bacterial & yeast infections and the chronic itching/scratching. Ensure you and your veterinarian have a plan in place for when to recheck your dog & how you'll be monitoring progress & response to treatments. Yeast infections and occasionally bacterial infections can be very itchy and interfere with proper gauging of response to treatments, so it's important to repeat testing for yeast & bacteria to ensure they are clearing, and continue treatment if they're still present.

There is often debate over giving pets medications such as steroids to stop the itch, however this is a decision that needs to be made between pet owner and veterinarian. Chronic itching, scratching, biting, pawing & rubbing of the skin exacerbates skin disease and the itching/inflammatory cascade, contributing to & often worsening inflammation & compromising the skin barrier. Sometimes a dogs' itch response will start to decrease once infections/allergies are treated and allergens are avoided, and sometimes the itch is so bad, medications are needed to provide some relief, to "take out the fire" for quality of comfort of both the dog and the owner. There are now many options available for pet owners that don't involve steroids and have proven to have few to no side effects, and anti-histamines without steroids remain a good option for pet owners to try to help bring some relief while navigating through the investigation phases of allergies & skin disease.

Our Favourite Products

Shampoos: We recommend baths 2-3 times per week initially for major skin issues, then slowly reduce the number of baths per week as the skin improves.

- **Eqyss Micro-tek Shampoo** is an anti-bacterial & antifungal shampoo, available on Amazon and at select equestrian stores, that works best full-strength for severe skin issues/infections, then can be diluted when the skin is more under control and for maintenance.
- **ProHex** is a chlorhexidine based antibacterial & antifungal shampoo available at most veterinary clinics
- **Micoderm** is an antifungal shampoo from the same company as ProHex. It is particularly helpful when dealing with yeast skin issues
- **Nizoral** is a antifungal shampoo helpful when dealing with yeast issues on the skin
- **Wahl Citrus** shampoo is another good general shampoo we have found works well at getting Newfs clean and can be used for flea/lice treatments. Use at full-strength and let sit for 10 minutes before rinsing for dogs with skin or parasite issues. Then can be diluted when the skin is more under control and for maintenance.

Ear Cleansers/Treatments:

- **ProOtic** ear cleanser is good general use ear cleanser, to be used as needed when ears need to be cleaned, that has good foaming action helpful in breaking up ear debris.
- **Triz EDTA** ear cleanser is a good gentle ear cleanser to use regularly and in particular with stubborn bacterial ear infections. The solution helps to break down the membrane of bad bacteria in the ear, making it easier for ear medications to treat & rid the bacterial infection.
- **Burrows Solution** is an ear medication that contains Boric Acid and Hydrocortisone available from your veterinarian. This product works best on yeast infections in ears with the Boric Acid clearing the yeast and Hydrocortisone helping reduce inflammation. Burrows can be used twice daily initially then reduced as the ears improve, and then used 1-2 times weekly for maintenance.

Topical Rinses/Sprays:

- **Chlorhexidine** based sprays (ie. Duoxo Pyo spray) & rinses (4% chlorhexidine preparations diluted with water) work well to treat bacterial and yeast infections in between baths as they are meant to be left on the skin. They can be applied once daily on non-bath days in severe conditions, then reduced to 1-2 times weekly as skin starts to clear up. They are available from your veterinarian
- **Povidine Iodine Solution**, available over the counter at your local drug store, can be diluted (to the colour of iced tea) and applied with a clean cloth to affected areas daily, multiple times per day if needed in severe skin conditions.
- **Green Tea** is an easy and effective treatment that can be used at home. Steep 5 tea bags in 4 cups of boiling water for 10 minutes, then place in the fridge to cool. Once cool, dip a clean cloth in to the green tea and wipe affected areas of the skin multiple times per day. This can be used in conjunction & interchanging with the Povidine Iodine Solution.

Supplements: Skin health starts from within the body so adding supplements into your Newf's diet may help. Because skin issues can vary from improper grooming, improper diet, all the way to food & environmental allergies, it is recommended to consider starting with the few supplements listed below, so as not to introduce too many changes to your dog while navigating through skin issues. As your dogs' skin starts to heal and if you're looking for more supplements & solutions to promote good health, consider some of the options in the "Additional Supplements". Like all changes to any health routine, try to limit changes & additions to one at a time and monitor your dogs' response to each new change over several weeks before adding in/changing things more.

Starter Supplements:

- **Dr. Ohhira's Probiotic (or another high quality one)** – 1 capsule twice daily **on an empty stomach** (preferably at least 30 minutes before food and a minimum of 30 minutes after thyroid pills for best results).
- **Omega Fatty Acids:** minimum 2500mg combined of DHA/EPA once per day. Start at a 1/4 dose and work up over a couple of weeks to prevent loose stool. This needs to be a fish or krill oil based and not synthetic. NutraSea Concentrated gel caps are a good brand. Gel caps are better than the liquid if your can get your dog to take them because they are less likely to go rancid.
**Note regarding food allergies – if you are going through or starting a food allergy trial with your dog, it may be best to wait until the trial is completed to introduce fish oils (unless the trial includes the fish from the same sources the omega fatty acids come from).*
- **Digestive Enzymes:** 1 capsule twice daily opened & sprinkled on food or given by mouth just before feeding

Additional Supplements:

- **My Community Comprehensive Immune Support:** 2 capsules once per day, opened & sprinkled on food or given by mouth after feeding
- **Kelp & Alfalfa mixed 50/50:** start with sprinkle and work up to 1 tsp per day, sprinkled on food
- **Spirulina:** start with a sprinkle and work up to ½ tsp per day, sprinkled on food along with the Kelp mixture above
- **Synergy:** 2 capsules twice daily opened & sprinkled on food
- **Golden Paste:** start with ¼ tsp twice daily and work up to 1 tsp twice daily on food
- **Oil of Oregano:** start with ¼ dropper twice daily and work up to 1 dropper full twice daily on food. Either mix with the golden paste above or put the oil directly into your dog's mouth right before they eat.
- **Allimax:** 1 capsule once per day, open and sprinkle on food or given by mouth after feeding

Links & Resources

- **@RayneClinicalNutritionCanada on Facebook** – follow link to videos to see Dr. Tony Yu, renowned veterinary dermatologist, talk all about allergies and solutions to itching, scratching & skin conditions.
- **Rayne Clinical Nutrition:**
<http://www.raynecanada.ca/homepage-launch>
- **Hilary Watson Recipes & Products for home cooked meals:**
<http://completeandbalanced.com>
- **Duoxo Pyo Products:**
<https://www.douxo.com/us/douxo-solutions/douxo-chlorhexidine>
- **ProConcept Products:**
http://proconceptsanimalhealth.com/?page_id=66
- **VARL Serum Allergy Testing & Immunotherapy for Environmental Allergies:**
<http://www.varlallergy.com/Home.html>
- **Hemopet Thyroid & Blood testing:**
<http://www.hemopet.org/>
- **Food Allergies:**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4951526>
- **Environmental Allergies:**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4951475>
- **Intradermal Allergy Testing & Immunotherapy (“allergy shots”):**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4952556>
- **Anemia caused by flea infestations:**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4951428>
- **Demodex mange in dogs:**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4951505>
- **Sarcoptic mange in dogs:**
<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4952007>