

# Dry Skin (Xerosis) in Pet Birds

Carlingford Animal Hospital

Your bird has been diagnosed with a dry skin condition called xerosis. This condition occurs due to a failure of the skin to remain properly hydrated. Dry skin problems always have a disease base. It is important to identify this cause(s) before the skin becomes inflamed, which may suddenly trigger feather plucking behaviour.

## Dry Skin Is Often A Winter Problem

The dry air of heated houses predisposes parrots to dry skin in Winter.

## Identifying the Disease Base

Birds with dry skin always have underlying health or care issues. Cultures, X-rays and blood tests are taken to diagnose and fully understand the complexities of your bird's particular problem. All underlying health problems must be properly diagnosed and treated to ensure dry skin and feather destruction episodes do not recur. Dry air (low humidity), digestive disorders and dietary deficiency of essential fatty acids (linoleic acid) are most commonly involved. Poor diet, lack of exercise, limited access to baths, uncontrolled sexual stimulation in males and stressful experiences also affect the skin's ability to remain hydrated and may predispose to dry skin episodes.

## Early Symptoms of Dry Skin

It is important to fully investigate birds with mild symptoms of dry skin before the problem escalates into feather destruction behaviour. Many birds kept indoors will have some degree of dry skin with little indication of a problem. An extended period of dry air may precipitate an episode of dry skin inflammation and irritation. Bouts of discomfort occur suddenly following a cold winter's night when the relative humidity drops below 50%.

**Sneezing:** The first indication of a dry skin problem is bouts of sneezing. Sneezing is heard soon after waking when birds start grooming. These sneezing attacks are triggered by skin scale that is inhaled into the sinuses after being dislodged by agitated grooming behaviour. Sneezing may also be heard during the day as the skin becomes inflamed. Bare nostrils (with or without a nasal discharge) are symptomatic of an ongoing dry skin problem.

**Abnormal Grooming Behaviour:** Grooming behaviour becomes agitated and focuses on skin areas most susceptible to desiccation (dryness). Birds with mildly irritating dry skin tend to nibble over the elbow and bend of the wing (carpus). They may also rub the back of their head when the feathers are also dry. Cockatiels tend to flick their head repeatedly from the irritation of dry skin.

## Feather Plucking Behaviour

Dry skin can lead to feather plucking behaviour. Feather destruction events, in the form of feather plucking are unbearably uncomfortable. Episodes of plucking usually follow a physical (cold, dry spell), physiological (digestive disturbances, hormonal imbalance) or an emotional disturbing incident. Feather plucking is the removal of the entire feather from its follicle. This abnormal behaviour occurs when inflamed peeling skin at the base of the feather follicles causes intense physical discomfort resulting in restlessness, physical and mental fatigue. The persistent tugging and removal of dead skin fragments by the agitated bird further inflames the skin.

Birds will pick at different areas of the body according to the specific health issue that underpins their dry skin problem. Cockatiels and eclectus with inflamed dry skin discomfort turn their heads behind their wings and aggressively pick and tug body contour feathers from the trunk area. The bare axilla (underarm) and scantily feathered skin covering the boney underside of the wings may then be targeted. Birds with Vitamin D deficiency are prone to dry skin irritation. Sexually over-active male birds, particularly Eclectus and Conures, are also particularly susceptible to dry skin irritation. These species tend to over-groom their legs and lower abdomen. Female birds that develop protein and calcium deficiencies as a result of hyperactive ovary may also develop dry skin problems and feather plucking behaviour.

## Comprehensive Treatment Plan

The health issues underlying dry skin problems are often multi-faceted. All factors need to be considered when developing a treatment plan. Digestive problems and dietary errors that cause nutritional deficiencies are the most common cause of dry skin problems. Additional complicating factors may include altered environmental conditions (e.g. hot, dry weather, excessively dry air (<50% humidity), cold spells, fluctuating temperatures), vitamin D deficiency, abnormal breeding behaviours and toxicity (bacterial and fungal infections, heavy metal poisoning). An individual treatment plan (over page) is developed based on your bird's exact diagnosis.

# Treatment of Dry Skin & Feather Destruction Behaviour

## STEP 1 – RELIEVE SKIN DISCOMFORT

Immediate treatment focuses on first relieving the symptoms of discomfort in order to rejuvenate exposed areas of skin and prevent feather destruction behaviour. Encourage bathing activity. This is achieved by applying plume mist twice daily to the feathers and any feather loss areas. This treatment stimulates preening activity that releases preen oils to moisturise the skin. To encourage bathing activity, warm the room to 26-28°C and provide a shallow concave dish filled approximately 3cm with warm (30°C) water. For small birds this can be placed at the bottom of the cage. For larger birds, a shower may be necessary.

## STEP 2 – DIAGNOSE & TREAT UNDERLYING HEALTH ISSUES

This requires the microscopic examination of droppings to assess the health status of the digestive tract; culture testing of throat and droppings to identify infection and best treatment choice; X-rays to differentiate the various causes of feather destruction (e.g. heavy metal toxicity, gizzard dysfunction and other digestive tract problems; breeding problems, different causes of localised or generalised pain etc.). Treatment plans for the condition(s) involved with dry skin are formulated based on the diagnostic conclusion.

### Underlying Health Issues

- Digestive disturbance
- Gizzard dysfunction
- Excessively dry air
- Fluctuating temperatures
- Male hypersexual behaviour
- Female hormonal disorder
- Heavy metal poisoning
- Bacterial or fungal toxin
- Other \_\_\_\_\_

## Immediate Treatment Plan

	Optional Medication	In Drinking Water	On Sterile Seed	Additional Instructions
Day 1	*Medications are mixed with drinking water supplements	Quik Gel & Hi-Cal <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>2</sup>	Return to hospital for daily crop flushing treatments as directed by Dr Marshall.
Day 2		Quik Gel & Hi-Cal <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>2</sup>	Maintain constant temperature (25-28°C) and humidity (65-75%) in the home setting.
Day 3		Quik Gel & Hi-Cal <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>2</sup>	
Day 4		Quik Gel & Hi-Cal <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>2</sup>	Stimulate daily bathing or mist spray with Plume Mist.
Day 5		Quik Gel & Hi-Cal <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>2</sup>	Provide cooked meals to help restore digestive health.

<sup>1</sup> Mix 1 drop Quik Gel & 1ml Hi-Cal thoroughly into 100ml drinking water. May also be given with fruit, vegetables or nectar.

<sup>2</sup> To 100gm of sterile millet mix add 10 drops of Turbobooster and mix thoroughly. Then, add 1gm (white spoon) each of E-Powder and F-Vite and mix again so that these powders stick to the Turbobooster oil impregnated seed.

## STEP 3 – DRY SKIN PREVENTION PROGRAMME

This prevention programme follows the immediate treatment plan and continues until there is complete coverage of new feather growth over the plucked areas of skin and all forms of dry skin and feather destruction behaviour have completely ceased. This plan is also used for birds prone to dry skin problems during winter (winter xerosis) or with a history of feather destruction behaviour. Prevention plans should come into place when your bird fails to take baths because it is too cold, at the first signs of skin irritation (e.g. sneezing episodes, head rubbing, head flicking and erratic grooming behaviour) or when there is very low humidity or during dry hot summer weather.

## Dry Skin Prevention Programme

	In Drinking Water	On Sterile Seed	Additional Instructions
Day 1	KD Powder <sup>1</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>4</sup>	Establish a regular bathing routine to stimulate proper preening behaviour. This helps to release preen oils that condition and strengthen feathers and skin.
Day 2	HiCal-D, Ioford & Dufoplus <sup>2</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>4</sup>	
Day 3	Quik Gel & HiCal-D <sup>3</sup>	Turbobooster, E-Powder & F-Vite <sup>4</sup>	Provide a nutritionally balanced and functionally healthy diet.
Day 4	Fresh water	Turbobooster, E-Powder & F-Vite <sup>4</sup>	Check the skin regularly for dryness.
Day 5	KD Powder <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>4</sup>	
Day 6	Quik Gel & HiCal-D <sup>3</sup>	Turbobooster, E-Powder & F-Vite <sup>4</sup>	
Day 7	Fresh Water	Turbobooster, E-Powder & F-Vite <sup>4</sup>	

**Whenever plucked feathers appear on the cage floor, the intensive immediate treatment plan above should recommence.**

<sup>1</sup> Mix 1gm KD Powder (white spoon) into 1 litre of drinking water. Fill the water vessel and use the remainder to clean the cage.

<sup>2</sup> Mix 10 drops Ioford & 5 drops Dufoplus thoroughly into 100ml of drinking water.

<sup>3</sup> Mix 1 drop Quik Gel and 1ml Hi-Cal thoroughly into 100ml of drinking water.

<sup>4</sup> To 100gm of sterile seed add 10 drops of Turbobooster and mix thoroughly. Then, add 1gm (white spoon) each of E-Powder, F-Vite and 0.5gm (1/2 white spoon) Ve8 Powder and mix again so that these powders stick to the Turbobooster oil impregnated seed.

<sup>5</sup> Same as <sup>4</sup> but do not add Ve8 Powder.