

## Feather plucking in parrots.

Feather plucking, also called feather picking or feather damaging behavior is a common behavioral disorder seen in captive psittacines, hook billed birds. These birds damage their own feathers by chewing on them, amputating, fraying, biting or pulling their own feathers out. The areas that birds usually pluck are the neck, chest, flank, wings and thighs; these are the areas that birds can easily reach with their beak. The down feathers and contour feathers are usually the ones plucked. Feather plucking is similar to feather pecking which is seen in commercial poultry farms but feather plucking is characterized by the bird plucking its own feathers, whereas feather pecking is when other birds peck one bird's feathers out. Humans show a similar disorder, trichotillomania, which is an impulse control disorder, causing uncontrolled hair pulling. The growth of new feathers in parrots that pluck is often retarded as there can be permanent damage to the feather follicles. This causes irritation which perpetuates the plucking cycle.

Most bird owners are attracted to the physically beautiful qualities of feathers. Feathers are very important to a bird for a variety of reasons: they enable the bird to fly, they regulate temperature, they are essential in protecting the bird against environmental and climatic changes and the feathers are used for courtship displays and interspecific communication. The owners of feather plucking birds often become very disappointed and despondent over feather plucking, especially when the main reason they have a bird is due to its beauty.

African Greys, Cockatoos, Macaws, Conures, Eclectus and Amazons are the main culprits when it comes to feather plucking. This may be attributed to their intelligence and emotional needs. Smaller psittacines (budgies) often pluck for medical reasons while the larger species pluck more often for psychological reasons.



A feather plucking African Grey

### Moulting

Moulting is a normal process that birds go through. This is characterized by old, worn out feathers being replaced by new feathers. Most birds have 1 or 2 proper moults per year. Parrots use their beaks to condition and waterproof their feathers with the aid of the preen gland. They also remove the sheaths that the new feathers grow through with their beaks, feet and claws. They also mutually preen more during a moult and often rub inaccessible areas such as their head against objects to aid in breaking up the sheaths. Humans, with our need to stroke are also often used to break up the old sheaths. The difference between preening (drawing a feather through the beak to condition it) and plucking (biting down on the feather during preening and either pulling it out or biting it off) is quite slight.



An Umbrella Cockatoo that is destroying its feathers

### Causes

Feather plucking usually has many different causes; these causes have to be treated as feather plucking is a symptom, rather than a disease. The easiest way to diagnose feather plucking is if the feathers on the birds head are missing, then the feather damage is due to another reason as a bird cannot pluck his own head. Self-mutilation is a horrible side effect of feather plucking, this is when the bird chews on its own flesh (often breast) and causes the area to become lacerated, and causes nerve damage and chronic pain or infection. Feathers are an integral part of a bird.

Sometimes an episode of feather plucking is actually caused by the owner who is either stroking the bird against the direction of feather growth, causing irritation, or the owner stroking the bird during a moult when the bird is very sensitive.

If the bird's wings are trimmed incorrectly it may annoy the bird and cause it to pluck. Often if a bird is damaging clipped feathers this is actually barbering (chewing the feathers) rather than actual plucking. The primary flight feathers on both wings need to be trimmed. The coverlets should be pushed back so that they then cover the cut ends and reduce itching. If the feather edges are left torn or ragged this will often cause the bird irritation.

Bird's behavior is very ritualized and follows specific patterns. Birds in the wild do not pluck their feathers; this is a syndrome of captive birds only. This is due to the fact that captive birds experience many unnatural stresses each day and are prone to relieving these stresses by attacking their feathers.

If you have a feather plucking bird, the first thing to do is get a complete medical work up done. If no medical cause is found then the plucking behavior will have most likely be caused by stress or psychological reasons.



A Blue and Gold Macaw that is plucking over its crop and abdomen

### Medical causes:

As this talk deals mainly with the behavioral issues of feather plucking, the medical causes will not be dealt with here. There are many, many medical issues that can cause feather plucking. If a bird is uncomfortable or in pain in a certain area they will often pick out their feathers over that area. A few of the medical causes for feather plucking are listed here: allergies, endo and ectoparasites, skin irritations, hypothyroidism, systemic illness, fungal infections, hypocalcaemia, Pbfd, PDD, Chlamydia, Aspergillosis, Giardia, airsacculitis, dietary

insufficiencies, neoplasia, heavy metal toxicity, hormones. Progesterone or testosterone imbalances are thought to be a primary cause of breast mutilation in cockatoos.



A Lovebird that is plucking its feathers

#### Environmental causes:

Cage size is very important for a bird's wellbeing; the dated way of thinking that a bird only needs space to stretch his wings out is ridiculous. A small cage can also be the direct cause of feather plucking as if the bird is constantly bashing his wings against the cage bars, the feathers will become damaged and begin to annoy the bird. The cage is where the bird spends most of his time and must be large enough to fulfil his mental, behavioural, social and physical needs. The cage should always be clean and safe for the bird.

Environmental enrichment is extremely important as this will distract a feather plucker and give it another outlet for its destructive impulses (paper bags, toilet paper rolls, cardboard boxes, newspaper, and wood). All toys should be as stimulating as possible and hold the bird's attention for as long as possible. Physical exercise is also essential (ropes to climb, toys to swing on, enough space to flap, perches to hang upside down on). Mental stimulation is also important (radio, TV, view outside).

Most birds kept as pets come from humid areas, so in the Highveld their skins become very dry (therefore itchy) and during spring lots of allergens (pollen) stick to the feathers. This causes the bird to remove the feathers as they are making him uncomfortable. This can be rectified by taking the bird into the bathroom with you when you are showering or spraying the bird with a fine mist (on warm days) to allow him to bath once a day. If the air is especially dry a humidifier may be used in the bird's room. A bathing bowl may also be placed in the bird's cage to allow him to bathe whenever he feels the urge. Do not spray any foreign substances onto the feathers as this will irritate the bird. Dampening the feathers also promotes grooming behaviour and sometimes this encourages normal preening behaviour as opposed to destroying the feathers.

Birds are very sensitive to environmental allergens so ensure that none of the following are being used anywhere around the bird: cigarette smoke, incense, aerosol cleaning products, perfume, deodorant, mould, pollens

Birds do need to be outside and to enjoy the sun for at least 20mins a day. The UV rays from the sun also ensure that the bird's metabolism is functioning correctly. Remember that glass filters out UV rays so the bird does not benefit from sitting behind a glassed window. If it is impossible to allow the bird outside time, then a full spectrum UV bulb can be used.

Birds are more emotionally perceptive than we give them credit for. If there is tension in the household, birds will feel this and sometimes pluck their feathers in empathy. Loud noises or any big scary new change in their environment can upset birds, so if any construction work or moving is taking place try to put the bird into an area which is as quiet as possible. Children, dogs and cats can also cause birds a lot of stress, so only allow them near the bird under supervision. The cage should be in an area where the bird can be part of the family activities but must be placed so that the bird can take a break from the chaos if everything gets too busy for him.

Birds need at least 10 to 12 hours of sleep per day. This mimics the hours of darkness they would receive in the wild. If they do not get enough sleep they, as people do, become grouchy and irritable. Ensure the bird is allowed enough sleep. Give him a quiet, dark area to sleep in.

Birds in the wild spend the majority of their time foraging for food so in a captive environment correct feeding is a useful way to stop feather plucking. All birds should be on a complete high quality diet to decrease the

chance of deficiencies, especially Vit A deficiency. Food can be hidden (toilet paper rolls), placed in educational toys (buster balls) or just difficult to eat (nuts with their shells, peas in the pod) and this will provide the bird with stimulation and keep them interested in the food. Different colour and shaped food is also essential.



A badly plucked macaw

### Emotional causes:

Sexual frustration is a common cause of birds plucking their feathers. If your bird is hand reared and the only bird in the household, he will grow up thinking he is a human. When breeding time arrives, he will then pick a human mate. Unfortunately for him, humans are not able to satisfy his sexual needs, and he gets frustrated. Breeding behavior can be lessened by decreasing the amount of fat in the diet. Providing a mate for your bird is often the best way to resolve this type of plucking. Birds that are nesting will often create a 'brood patch', a plucked bare area on their chests to enable them to transfer heat to their eggs. The feathers that are plucked from the brood patch are used by the bird to insulate the nest. This behaviour is normal and only seen as a problem if the bird begins to pluck other areas.

Separation anxiety is also a common reason that birds pluck. A bird that is abnormally bonded to its owner reacts in a very distressed manner when the owner is not with the bird. This condition is often affected by genetics and learnt experiences (being rehomed often, major upsets in routine). These birds need to be treated as you would treat separation anxiety in any species. The bird's routine needs to be kept as constant as possible, relaxation skills should be taught and the bird must be desensitised to arrivals and departures. The main reason that birds in the wild do not experience feather plucking is that they have company. Birds are very social and suffer when kept alone.

Hand raised birds are also more prone to develop feather plucking as they have not been taught how to correctly groom themselves by other birds, their parents or the flock.

Attention seeking: Birds often learn through negative reinforcement that plucking at their feathers can be an ideal way to get attention from their owners. These birds often screech to get the owners attention before plucking. These cases can be dealt with by ignoring the bird, or using a 'time out approach'.

Boredom: Many pet birds are very under stimulated and bored. Any caged environment (no matter how much environmental enrichment is offered) is extremely boring compared to a wild bird's environment. The more environmental enrichment, noises, foraging and companionship that can be provided, the better.

Stress and anxiety: A fear response that cannot be dealt with often results in feather plucking. Identifying the causes of stress and dealing with them is the only way to deal with this type of plucking. Increasing the bird's confidence by behavioural modification plays a very important role here. Another form of anxiety can be caused by overcrowding as this leads to territorial issues between birds and this increases a birds anxiety levels.

Obsessive compulsive disorders: As with other animals this can be diagnosed by the amount of the activity budget used to perform the destructive behaviour. These birds will stop performing normal activities to pluck themselves. This causes a cycle that needs to be broken and a major change in lifestyle is needed for these birds.



A feather plucking male Eclectus

#### Behavioural modification:

Behavioural modification is an essential tool when dealing with a feather plucker. Different techniques can be used for different triggers for the behaviour. For example: if the bird is plucking due to separation anxiety, a programme to desensitise and habituate the bird must be implemented.

There are two different kinds of stress or anxiety that a bird experiences. Simple stress is generally quite easy to identify as this is caused by an isolated incident. If this trigger can be found and resolved before the behaviour becomes a habit, the prognosis for a full recovery is good. Complex stress is much more difficult to deal with as this is caused by a combination of long term negative events. Feather plucking is also often used as a coping strategy for stressed birds. Stress increases the body's levels of cortisone and this hormone often causes feather plucking.

Psychological feather plucking due to stress is generally a vicious cycle as the bird plucks to relieve the stress it is experiencing, the plucked area becomes painful and irritated and the pain experienced causes the bird to pluck more and so on. The constant trauma to the plucked area can cause infection and due to the constant plucking the area never gets the chance to heal.

Often bandages and collars are used to try to break this cycle. These treat the symptoms of the disorder but not the cause. These can often cause more stress and make the behaviour worse. They should only be applied when it is necessary to stop self-mutilation and stop haemorrhage. These create a whole other issue by preventing the bird from preening normally and this causes the bird's feathers to lose condition and can cause even more plucking when the collar is removed.

Feather plucking and self-mutilation are often habitual and this behaviour is reinforced by the owner giving the bird attention when they see the bird plucking.



A female Eclectus that is a feather plucker

### Medications

Psychoactive drugs are often used to treat feather plucking but these are not dealing with the cause of the disorder so often birds being treated this way need to be on these drugs lifelong. Clomipramine (blocks the re-uptake of norepinephrine and serotonin), Haloperidol (dopamine antagonist) are the most common drugs used to treat feather plucking parrots. Bach flower essences and grapefruit seed extract (calming effect) can also be used to try and prevent episodes of feather plucking. Progesterone is sometimes successful to keep the birds sexual hormones in check and therefore stop feather plucking due to sexual frustration.



A cockatoo that has self-mutilated its chest

### Summary:

Feather plucking is a multi-faceted syndrome and cannot be correctly treated unless a cause is found. Anxiety and stress are the main causes of this behavioural anomaly. Feather plucking is very difficult to resolve and needs to be addressed before it becomes habit. The most essential factors are to ensure that the bird's environmental, nutritional and physical needs are dealt with before delving deeper.

Parrots are very complex by nature and have a tendency to feather pluck to relieve all different kinds of anxiety and stress.



An African Grey being treated with an Elizabethan collar

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