

Diet-Linked Behavior in Parrots
By Pamela Clark, CVT

Can diet *really* affect behavior? We know that eating certain foods, or eating too much food, can cause us to feel sluggish and sleepy. But can the food we eat really impact that way we, or any animal, behaves?

This idea gained popularity back in the 1970s when California allergist Benjamin Feingold claimed that the behavior of many of his young patients improved when he placed them on special diets to treat their food allergies. Since then, there have been many different studies performed, some of which seem to confirm Dr. Feingold's assertions, while others do not.

The same question has been explored regarding prisoners who have demonstrated violence and criminal behavior. While some evidence exists to support this idea, the National Council against Health Fraud states, "Valid evidence is lacking to support the claim that diet is an important determinant in the development of violence and criminal behavior."

What does this have to do with parrots? These two examples illustrate that care must be taken when we draw conclusions that diet affects behavior in specific ways. This is certainly true with people, but even more so with our parrots, who can't tell us how they feel.

Take, for instance, the current discussion about whether formulated diets and vitamin supplementation can cause toe-tapping and wing flipping in Eclectus parrots. Arguments exist on both sides of this issue. While some believe strongly that this is true, others offer different explanations.

According to Eclectus authority Laurella Desborough, "There can be many causes of toe-tapping and wing flipping." These include serious infection, an adult hen coming into reproductive mode, improper or inadequate diet, molting, completion of a drug treatment process, or possibly an interaction of more than one factor. To date, no definitive studies have been done to identify the reasons for these behaviors in Eclectus parrots and the experience of caregivers differs widely. Many Eclectus eat a formulated diet with no ill effects.

In fact, the link between diet and behavior can be confused and obscured by many things. For example, if a caregiver believes that formulated diets cause such symptoms, then he may not also consider all of the other things in the environment that might also be contributing to the problem.

There is, however, one link between diet and behavior in parrots about which experts seem to agree. There is a large body of anecdotal evidence to support the fact that a diet high in simple carbohydrates and fats, or a diet that provides too much food, will cause an increase in the production of reproductive hormones and the behaviors that result from this. As Dr. Scott Ford explains in his article "Balancing Your Parrot's Lifestyle," "An overabundance of food, foods high in fat and calories, and too many food choices can all 'turn on' your bird's reproductive desire."

The behaviors that often result from such a diet include intense bonding with one person in the family, cavity-seeking behavior, paper shredding, loud demanding vocalizations, and fierce territoriality. While it may be cute initially when a parrot becomes obsessed with getting into dark drawers or closets, or wants to be with us constantly, these behaviors over time become problematic. And, while these behaviors may occur only seasonally in the beginning, they can progress in some individuals until they occur year round, developing into problems such as feather picking or feather barbering, self-mutilation, chronic egg-laying, egg binding and cloacal prolapse.

Dr. Jamie Lindstrom of the Animal Clinic of Northview in North Ridgeville, Ohio sees an additional problem. He explains that "as we provide these high energy, high carb, high lipid diets, we're also providing these birds with high energy. If the parrot has insufficient opportunities to expend this

energy, it leads to some of the aberrant behaviors, such as screaming and biting, that we see in these birds.” Often, eliminating these foods from the diet results in a much calmer parrot.

According to Dr. Fern VanSant, there are two key issues that we have missed when deciding what and how to feed our parrots. The first is that parrots in the wild are normally “turned off” or reproductively inactive during most of the year. The second is that the “surroundings of abundance” which we provide in captivity often have the effect of keeping companion parrots reproductively active throughout the year. She writes in her article “Hormonal Behavior,” “As pets, the conditions of abundant food, bonded owners, comfortable cages and considerable physical contact seem to initiate breeding behaviors that become long term drives. Without the naturally occurring environmental pressure of dwindling food supplies, changing conditions, and competition for resources that limit breeding behavior in wild populations, breeding behaviors and hormonal drives persist unchecked.” These captive conditions result in the behaviors described above.

What are these problem foods specifically? Ironically, they often are the parrot’s favorites – seed mixes, nuts, bread, pasta, rice, snack foods, cheese, cereals, and dried fruit. All of these foods offer a source of high energy to the parrot, creating louder, more excitable behavior and triggering increased hormone production. These have no place in a parrot’s regular diet, although very limited amounts can be offered through foraging or training.

In addition, parrots are often fed an overabundance of food. To date, the accepted tradition has been to keep food available to our birds throughout the day. Often, two or three meals are provided, along with snacks and goodies delivered at frequent intervals. Some parrots share their owner’s meals too. These conditions of abundance create a situation in which the parrot selects and eats only his favorite foods.

How do we begin to bring a parrot’s diet back into line? One valuable rule is to eliminate from the diet any foods that contain simple sugars or syrups, such as brown sugar, dextrose, corn sweetener, fructose, high-fructose corn syrup, honey and molasses. Also eliminate all foods that are not 100 percent whole grain. And, lastly, do away with any foods that contain saturated fat or trans fat, such as four-legged animal fat, milk fat, butter or margarine. This step will require that you begin to read the labels of all foods provided.

Those parrots eating a seed mix as a staple in the diet should be gradually converted to an appropriate formulated diet instead. While the problems associated with eating a seed mix have been recognized for many years, many parrots continue to depend upon them. Seed mixes are low in vitamin A, resulting over time in a poorly functioning immune system. They are also high in fat and contribute to health problems such as fatty liver disease. They also are a major cause of obesity in parrots.

The best diet begins with a high-quality formulated food, such as an organic or natural pellet. This can be supplemented with abundant fruits and vegetables, which should be provided in their most unprocessed, whole form. Since fruits are a source of naturally-occurring sugars, it’s best to focus on the provision of those that are high in vitamin A. This would include any that are red, orange or yellow in color, such as cantaloupe, pomegranate, mango, apricots and papaya. Dr. VanSant encourages her clients to focus on feeding berries, which are high in anti-oxidants and vitamin C. Apples are valuable for maintaining intestinal health, due to the pectin that they contain. Bananas and grapes, two fruits which are highest in sugar, should be strictly limited.

Best vegetables to offer include dandelion greens, collard greens, mustard greens, kale, chard, broccoli, peppers of all kinds, fennel, Brussels sprouts, cauliflower, okra, green beans, snap peas, cabbage, carrots, chayote squash, jicama, celery, zucchini, yams, sweet potatoes, winter squash, beets, cucumber and radish. Vegetables that grow beneath the ground should be offered after cooking, with the exception of carrots. Those that grow above the ground can be offered raw, although some, like winter squash benefit from cooking.

Dr. Lindstrom agrees, recommending that 70% of the diet be an organic formulated diet. This then is supplemented with organic fruits and vegetables, whole grains and legumes. If seed is provided to some of the smaller species, such as budgies and cockatiels, this should be offered in small amounts, such as one teaspoon, no more than 3 times a week. Whole grains can include brown rice, hulled barley, wheat berries, buckwheat, oat groats, spelt, kamut, amaranth and quinoa.

Even on the best diet, however, a given parrot may become overweight if too much food is consumed. This is sometimes the case with Amazon parrots, as well as budgies and cockatiels. Not only does excess weight become a health issue, but overweight Amazons, budgies and cockatiels are more likely to display sexual behaviors according to Dr. VanSant. In these cases, it may even be necessary to restrict the amount of the formulated diet offered.

Thus, a second key to good nutrition can be that of limiting the overall quantity of food offered. This prevents the bird from self-selecting only his favorite foods. Randal Brue concurs in Avian Medicine: Principles and Application saying, "This is best accomplished by providing limited portions, or meals, to encourage consumption of everything offered, as opposed to a virtual ad libitum feeding program where the bird can reach satiety by eating only one or two of its favorite ingredients."

Many experts are now also recommending "meal-feeding" as an additional solution. As Dr. VanSant explains, "As birds [in the wild] typically feed twice a day, early morning and late afternoon, meal-feeding for a finite time (one to two hours) twice a day can have numerous benefits. Meal-feeding restores one more facet to the regular periodicity observed in wild parrots. Meal-feeding also avoids a lot of waste and seems to return food to a mode of sustenance instead of entertainment." In addition, she says "Careful timing of feeding times can turn a loud morning or evening 'power hour' into a quiet mealtime."

Foraging is another important strategy for dealing with these unwanted behaviors. The act of foraging engages a bird's mind and keeps him moving. This is the time to make use of those seeds, nuts and small pieces of whole grain pasta you've removed from the regular diet. Foraging opportunities range from the simplest, such as wrapping a food dish with paper or cardboard, to the more complicated, such as constructing a foraging tree.

Untreated wood, such as pine or fir, can be drilled with holes and stuffed with seeds or small pieces of nut. These can be used as perches or hung in the cage. Individual pieces of food can be wrapped in small pieces of paper, corn husks, small paper cups, coin wrappers or other materials. Pellets or seeds can be mixed with dried beans or small pebbles so that the parrot has to sort through the material to find his food. Many companies now sell toys designed specifically to encourage foraging. Even the regular diet can be provided in several bowls in the cage, which are placed at different heights in different places. Smaller birds can be encouraged to forage by sprinkling food on a piece of AstroTurf placed in the cage.

Even trick training can be used as a foraging strategy. This also satisfies the bird's need for social interaction. Trick training can be a way for an owner to provide the social interaction and learning opportunities that a parrot craves without engaging in the physical cuddling that often exacerbates an increase in hormone production.

Improving a parrot's diet is best done with the guidance of a professional. Many parrots convert quite easily, while others do not. However, with consistent effort, all parrots can be taught to eat an optimal diet. In all cases, it is important to weigh the parrot regularly to make sure that weight loss is not occurring, unless this is a desired goal. A weight loss program should be undertaken only under the guidance of an avian veterinarian. By feeding your parrot a better diet, you will not only insure the best health, but you will have a more enjoyable parrot companion!

Resources:

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