

# Quarantine and Care of Newly Acquired Birds

Greg J. Harrison, D.V.M.

Research Center for Avian Medicine, Nutrition and Reproduction  
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Dr. Greg Harrison

5. Prevent over-crowding
6. Proper ventilation (Use of laminar flow air movement)
7. Vermin-proof feed storage area
8. Separate area for necropsy
9. Separate room for washing equipment
10. Shower located at entrance with clothes storage area.
11. Insect and pest control supplies.
12. Adequate water.
13. Provisions for incineration of waste.
14. Have power cleaning and disinfectant equipment.
15. Sufficient stock of disinfectant.

To properly care for newly acquired birds, and to protect an already established collection, one needs to quarantine, evaluate, and condition the new birds before introducing them into the aviary.

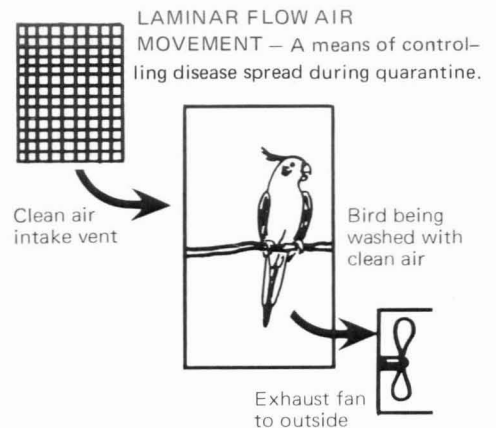
Unfortunately, neglect of this principle has come into recognition recently with the catastrophic loss of several United States collections of birds.

All legal birds coming into the country have already been through a 30 day quarantine under the supervision of the United States Department of Agriculture before they are released for distribution. This time period was developed to protect the poultry industry from exposure to Newcastle's disease. Other diseases might also become evident during this time. However, just because a bird survives this first 30 day period does not mean that it is free from all disease and in healthy condition. In fact, it is often the "quiet" disease (the one which the bird is carrying but is not showing any symptoms of) that actually causes these disasters. Further quarantine by the aviculturist is recommended as top priority when receiving new birds.

Since many people are unsure as to what a quarantine entails, perhaps we could discuss a few of the basic principles as set forth in the U.S.D.A. handbooks for quarantine stations, and see how they can be adapted for use on a smaller scale.

Basic principles of the U.S.D.A. quarantine include:

1. All birds in and all birds out at the same time.
2. Supervised by a veterinarian.
3. Located at least 1/2 mile from any other birds.
4. Building made of materials to withstand constant cleaning and disinfecting (possibly metal or some other impervious surface). It should also be double screened.



## Operational Procedures

1. Personnel — access to the facility shall be granted only to persons working at the facility or approved by the veterinarian. All personnel granted access to the bird area shall:
  - a. Wear clean protective clothing and footwear.
  - b. Change clothing and footwear when soiled or contaminated.
  - c. Shower when entering and leaving bird-holding and necropsy areas.
2. All psittacine birds shall receive treatment as a precautionary measure against ornithosis, in accordance with guidelines of USPHS.
3. The facility shall be disinfected between each load of birds.
4. It is preferred to have a single bird per cage.
5. All birds shall be assumed infected.

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6. Cages are screened to avoid birds having contact with stool.
7. Cleaning cages:
  - a. First bird is transferred to a clean cage.
  - b. Cage is then placed in live steam or quaternary ammonium chloride solution for at least 30 minutes; then cage is thoroughly scrubbed in hot water and carefully rinsed in clear running water.
8. Equipment:
 

Vessels used for preparing the drug-feed mixture and for feeding must be of incorrosive material, such as plastic, heavy glass or stainless steel. These must be kept scrupulously clean.

Keeping in mind the above principles, one can adapt their own program. We have a two-step method for new birds at our research facility.

**Step. I.** Birds are held in an enclosed building with laminar flow air movement for the first 10 days. Here they are conditioned and given physical examinations, including laboratory work; they are endoscoped, placed on preventative medication and observed closely. Each bird has an individual cage. Our diet is introduced, and the dropping and amount of food being consumed is monitored.

**Step II.** For the next 3-4 weeks, the birds are held in open wire cages, hung under a large shade tree. They are caged together as they will be in the future (pairs, etc.). There is a separate employee responsible for each step of the quarantine.

We have developed an outline to follow in evaluating each bird's health and I have included it here. You might reproduce it and use it to check out each new bird that is added to your collection.

I have repeated the outline, but have included specific notations on what to look for in the way of abnormalities, etc. to assist you in establishing a routine.

I am also including suggestions in evaluating the aviary as a whole, as well as a possible example of a health certificate to be included with the bird if he is sold or otherwise transferred.

### Examining and Conditioning A New Psittacine for the Aviary

#### I. Observation in cage under quiet conditions

(Many indications of health are evident just from *looking* at the bird. Choose a quiet room and allow the bird time to adjust to his cage and other surroundings.)

**Eyes:** (Make note of which eye is involved.)

**Signs of Infection:** (May be a dis-

charge or crusty material collecting on, around or under eyelids.)

**Consistency of Discharge:** (If clear, it may be allergy or foreign body; pus would indicate infection; red, injury.)

**Signs of Irritation:** (A "wet area" on the shoulder is a sign of the eye being rubbed on the wing, and may indicate impending eye problem.)

**Swelling:** (May be around, in, or under the eye ball. Small psittacines seem to have collections of cheese-like material under the eye lids caused by mycoplasma — treat with tylosin eye powder.)

**Cataracts:** (Gives a cloudy appearance to the space inside the pupil, and is common in old psittacines.)

**Eyelids:** (Droopy eyelids are often seen in cockatiels as a result of previous eye infections. The bird may be a carrier of mycoplasma.)

**Vision:** (Can the bird follow a moving object with its eyes without the help of sound or touch?)

**Other:** (Make note of any other abnormalities that aren't specifically mentioned.)

**Nares and Cere:**

**Discharge:** (Note consistency. We

#### Analysis per 3.5 grams (approximately one teaspoon)

A	. . . . . 600 IU
Carotene	. . . . . 0.365 mg.
Canthaxanthin	. . . . . 1.8 mgs.
D <sub>3</sub>	. . . . . 60 IU
Arginine	. . . . . 32 mgs.
Histidine	. . . . . 13 mgs.
Isoleucine	. . . . . 24 mgs.
Leucine	. . . . . 33 mgs.
Phenylalanine	. . . . . 30 mgs.
Tyrosine	. . . . . 33 mgs.
Methionine	. . . . . 12 mgs.
Cystine	. . . . . 8 mgs.
Threonine	. . . . . 33 mgs.
Tryptophane	. . . . . 9 mgs.
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Lysine	. . . . . 44 mgs.
Alanine	. . . . . 30 mgs.
Aspartic Acid	. . . . . 50 mgs.
Glutamic Acid	. . . . . 140 mgs.
Glycine	. . . . . 36 mgs.



E	. . . . . 10 IU	Niacinamide	3.7 mgs.
K	. . . . . 0.001 mg.	P.A.B.A.	. . . . . 2 mgs.
C	. . . . . 6 mgs.	Biotin	. . . . . 0.003 mg.
Bioflavonoid		Calcium	. . . . . 170 mgs.
Complex	. . . . . 0.85 mg.	Phosphorus	. 170 mgs.
Hesperidine		Magnesium	. 7.3 mgs.
Complex	. . . . . 0.735 mg.	Potassium	
Rutin	. . . . . 0.365 mg.	Chloride	. . . . . 39 mgs.
B <sub>1</sub>	. . . . . 0.5 mgs.	Sodium	
B <sub>2</sub>	. . . . . 0.5 mgs.	Chloride	. . . . . 25 mgs.
B <sub>6</sub>	. . . . . 0.5 mgs.	Manganese	. 0.069 mg.
B <sub>12</sub>	. . . . . 0.001 mg.	Cobalt	. . . . . Trace
Choline	. . . . . 7.8 mgs.	Silicon	. . . . . Trace
Inositol	. . . . . 7.8 mgs.	Iron	. . . . . 0.7 mgs.
		Copper	. . . . . 0.037 mg.
		Iodine	. . . . . 0.008 mg.
		Zinc	. . . . . 0.245 mg.
		Proline	. . . . . 39 mgs.
		Serine	. . . . . 50 mgs.
		Pantothenic	
		Acid	. . . . . 2.5 mgs.
		Folic Acid	. 0.122 mg.

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have found a mild case of nasal discharge to be accompanied by a rather diffuse air sacculitis.)

**Sneezing:** (A sign of impending respiratory disease.)

**Diameter the same:** (Tumors and fungal infection of the sinus are often first noted as a change in the diameter of nares.)

**Change in color or texture:** (Feminization tumors in male budgies cause brown hypertrophy of the cere, etc.)

**Swelling:** (Note swelling anywhere on head.)

#### **Beak:**

**Shape:** (Is it twisted or wearing uneven?)

**Length:** (Does it need trimming? We use a Dremel® drill and honing stone to trim beak — can get much shorter than clippers.)

**Texture:** (If it appears flakey or moth-eaten, it may be a bacterial or fungus “rot” that responds to grinding down to fresh tissue and using the appropriate drugs.)

#### **Respiration:**

**Rate:** (Resting birds should have a respiration rate that’s barely noticeable.)

**Depth:**

**Labored:** (Abnormalities such as “tail bobbing” may indicate breathing difficulties.)

#### **Wings:**

**Positioning:** (Drooped wings may mean weakness, or wing injury.)

**Feathering:** (Twisted feathers are a genetic defect seen in some parrots — would definitely not make good display or breeding birds.)

**Flying Ability:** (Wing injuries are common, and many birds may look normal but be unable to fly and useless in some collections.)

#### **Personality:**

**Nervous:** (Some birds may have degrees of nervousness under varying conditions; discovering the conditions of least excitation may be the key to reproductive success.)

**Screaming:** (This might be a very irritating habit that might disturb the whole aviary.)

**Relaxed:** (A relaxed bird is a definite asset.)

#### **Feet and Legs:**

**Disuse:** (Favoring of one leg may indicate past or present injury.)

**Shifting of Weight:** (Restless birds may have sore feet or parasites.)

**Length of Nails:** (Long nails can

get caught in the cage and cause a leg to get broken or the bird to get “hung” and die.)

**Missing Toes or Nails:** (Can be used as a means of identification.)

**Grasping Ability:** (Many foot injuries are missed unless the perch is rotated and the ability to grasp becomes obvious.)

**Difficulty in using:** (“Clumsy” birds may have old fractures, or even head injuries — they might miss objects that they reach for.)

#### **Feathers:**

**Heavy Molt:** (Such a bird may require a special diet or lighting requirements.)

**Feather Picking:** (May be an excellent breeding bird, but a poor display bird.)

**Feather Damage:** (May be due to soiling, cage and handling problems, or mites, etc. Make a note to pull damaged ones and closely check others if there is an obvious problem.)

**Soiled Feathers:** (Soiled vent feathers indicate loose stool and should be further investigated.)

**Droppings:** (Much valuable information can be obtained from droppings — however, they must be evaluate prior to stress or diet change, as the character changes.)

**Urates:** (From kidney)

**Color:** (Usually white and dry when normal. Brown color may indicate kidney disease.)

**Amount:** (Sick birds usually lack a white crystal urate and tend to have a lot of water instead. Some species such as lorries normally have a clear urine portion.)

**Consistency:** (If they are loose and lack white crystal nature, a problem is present in the kidney.)

**Stool:** (From food)

**Color:** (You need to learn normal color for all species; for example, the presence of green stool may indicate the bird is not eating enough; however, in Amazons, it is normal.)

**Amount:** (Is in direct correlation with the amount of food the bird is eating.)

**Consistency:** (Nervousness or high moisture content in diet will temporarily loosen stool; however, if there is no normal stool in the entire cage, then suspect a problem. A “pea soup” green diarrhea suggests the possibility of psittacosis.)

#### **Parasite Examination:**

**Direct Smear:**

**Fecal Flotation:**

**Gram Stain:** (In psittacines, Gram Negative bacteria — salmonella, E. coli, pseudomonas — are potential disease producers and we treat with antibiotics as determined by culture and sensitivity. If rushed, we just use erythromycin and re-check gram stain; they usually clear up in 5-10 days.)

**II. Physical Examination:** (The only way to give a physical is to handle the bird.)

**Weight:** (Use a box or cone device to hold the bird while being weighed.)

**Crop:** (A completely empty crop is rare in a healthy bird if food has been available.)

**Eyes:** (Even though obvious signs of disease have been observed while the bird was still in the cage, you still need to examine more closely while you are handling the bird. Check under the eyelids, as some birds accumulate a pus-like material that should be removed.)

**Nares:** (Use an otoscope or a small diameter endoscope.)

**Ears:** (Same instruments as above.)

**Mouth:** (Put a pencil or speculum to hold the beak open and use a light to look inside the mouth; check the surface of the tongue, the soft palette and the area of the larynx for the presence of small abscesses, sores or the accumulation of exudate. An endoscope can be used for trachial examination in all but the smallest birds.)

**Breast Tissue:** (The proper ratio of muscle to bone and fat is an excellent general indicator of physical condition. Skinny birds are poor risks and fat birds may never breed. Obese birds should be placed on a reducing diet.)

**Abdomen:** (Normal weight birds with a “beer belly” might possibly be plagued with egg peritonitis, testicle tumors, or other abnormalities.)

**Turgidity of Wing Vein:** (If the vein is plump and hard, the bird most likely has a normal serum protein and PCV, which suggest good health. We have correlated flat veins with hypoproteinemia, anemia, and dehydration and would go on to do a more thorough exam.)

**Feet:** (Check for sores; trim nails and beak if too long. Remember that the bird is unable to grasp and eat correctly if they are cut too short, so you may need to house separately for a few days to make sure it’s all right.)

Check for grasping ability.)

**External Parasites:** (Look for mites, lice, etc.)

**Trim Beak and Nails:** (See above.)

**Respiratory Recovery Time:** (Grasp the feet and allow the bird to flap wings for one minute; place him back in the cage and record the amount of time required for him to stop panting. Birds with lung, air sac, or cardiovascular problems will show up at this time.)

**Blood Sample:** (I have seen enough blood diseases and parasites to justify blood checks on valuable birds.)

**PCV:** (We use a micro-hematocrit tube; normal value is 40-50. Sub-normal might suggest anemia; extremely high levels might be caused by dehydration.)

**Serum Protein:** (Determined with a refractometer. If above 4.3, the bird is not in immediate danger; if below 2.3, the bird will probably die no matter what we do. The ones between 2.3 and 4.3 need immediate diagnostic and supportive measures.)

**Blood Smear:** (Scan for WBC's and blood parasites.)

**Remove Damaged Feathers:** (No harm in removing damaged feathers; give the wing or tail proper support and pull in a gentle, steady fashion.)

### III. Conditioning

**Place in observation area (80-85° F.) to stabilize and start conditioning:** (After 3 to 5 days, the temperature can be decreased to normal cage temperature for the remainder of the quarantine, if the bird is eating and the stool is normal.)

**Antibiotics:** (We routinely use erythromycin — 500 mg/gallon of distilled water. Use only in glass or plastic cup. Refrigerate solution and replace daily in cup. For sick birds, we use the antibiotic of choice, as indicated by the culture and sensitivity. We may use longicillin, tylosin, gentocin, kanamycin or tetracycline.)

**Vitamins:** (We routinely use Injacom 100 Plus® — .25 cc IM for a 300 gm. Amazon. Obese or stressed birds would get Aminovit V®, .1cc for Amazon.)

**Worming:** (Even if no parasites are found on the fecal exam, we routinely worm with 18.2% Levamisol® — 5 cc per gallon of water, as their only source of drinking water for 24 hours. Often we have had worms expelled after treatment from birds with negative fecal exams.)

**Diet Introduction:** (First of all, we

remove all grit from psittacines' cages as it is not necessary, and often harmful. Begin a slow, methodical change-over from whatever diet the bird was on to your own balanced appropriate nutritional program.

**Vaccinations:** (Pigeon Pox vaccine may be used to stimulate antibodies in a general fashion. Other vaccines have been developed and may be available for specific problems.)

**Quarantine for 30 days**

### Aviary Inspection Sheet

This inspection is recommended every six months so problems can be prevented before they become a devastating disease.

#### Isolation Facilities

- \_\_\_\_\_ For New Birds (30 days)
- \_\_\_\_\_ For Sick Birds
- \_\_\_\_\_ Each flight should have a corresponding isolation pen if illness occurs, so if different problems occur in different flights, an exchange does not occur.

#### Methods of Disease Prevention

- \_\_\_\_\_ Method of avoiding foot contamination
- \_\_\_\_\_ Non-porous material in front of aviary to change into rubber footwear.
- \_\_\_\_\_ Disinfectant Pan (for cleaning footwear after leaving aviary; covered after use and a brush for cleaning)
- \_\_\_\_\_ Fecal Exams run (check for gram negative bacteria and parasites, especially new birds)
- \_\_\_\_\_ General Cleanliness
  - \_\_\_\_\_ Walls (Should appear to have been regularly scraped, swept, washed and disinfected)
  - \_\_\_\_\_ Floors
  - \_\_\_\_\_ Water Cups — free of slime, stool and algae
  - \_\_\_\_\_ Feeders
  - \_\_\_\_\_ No accumulated stool, feathers, old seed.
- \_\_\_\_\_ No evidence of overcrowding
- \_\_\_\_\_ Proper disposal of old litter
- \_\_\_\_\_ Allows limited exposure to sun light
- \_\_\_\_\_ Avoids over-exposure to sun, wind, rain
- \_\_\_\_\_ Proper Air Circulation
- \_\_\_\_\_ Preventative Medication Used
  - \_\_\_\_\_ Keet Life (30 days new birds)
  - \_\_\_\_\_ S.F. 66 (30 days new birds)
  - \_\_\_\_\_ Furacin Water Mix (15 days new birds)
- \_\_\_\_\_ Proper care of food preparation equipment
- \_\_\_\_\_ Proper storage of unused equipment (old cages, nets, shipping crates, etc.)
- \_\_\_\_\_ Aviaries closed to visitors

- \_\_\_\_\_ Disinfectant used.  
Name: \_\_\_\_\_
- \_\_\_\_\_ Show birds isolated after a show
- \_\_\_\_\_ Aviary constructed so as to be free of disease from rats, mice, wild birds, pets.
- \_\_\_\_\_ Insect control

#### Diet

- \_\_\_\_\_ Balanced
- \_\_\_\_\_ Food fresh and wholesome
- \_\_\_\_\_ Supplemental vitamins
- \_\_\_\_\_ Supplemental minerals
- \_\_\_\_\_ Iodine (salt)
- \_\_\_\_\_ Source of animal protein
- \_\_\_\_\_ Avoids trash and weed pile up around aviaries.
- \_\_\_\_\_ Species separation (For ex: parakeets (budgies) carry mycolasma, a common cause of sinus infection in cockatiels)
- \_\_\_\_\_ Baby bird hand raising facilities clean and separate from adults
- \_\_\_\_\_ Nest has proper ventilation
- \_\_\_\_\_ Nests are easily cleaned
- \_\_\_\_\_ Nest material is clean and preferably sterilized by heat.
- \_\_\_\_\_ Control of mites (white paper tacked on side of aviary will show mites on underside) Use Purina Roost paint.

#### General

- \_\_\_\_\_ Absence of sick or injured birds in aviaries (Poor birds should be disposed of as they are usually disseminators of disease.)
- \_\_\_\_\_ Absence of signs of overbreeding.
  - \_\_\_\_\_ Small clutches
  - \_\_\_\_\_ Crawlers
  - \_\_\_\_\_ Poor plumage
- \_\_\_\_\_ Absence of new birds which would have to have been smuggled.

#### Recommendations for Change

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Date of Inspection \_\_\_\_\_

Signature of Inspector \_\_\_\_\_