# Chronic Egg Laying

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hronic egg laying (CEL) in pet birds is a problem that has become increasingly common as some types of birds are becoming more and more domesticated. Pet birds are often selectively bred for high production and consequently may try to reproduce uncontrollably. Contrary to popular belief, egg laying in birds does not require the presence of a male bird. Only the fertility of the egg depends on the male. While some may argue that continual egg laying is not a problem since domestic chicken hens lay eggs almost daily, it must be remembered that domestic chickens only are kept alive for about one to two years.

The egg (despite its recent bad reputation because of the cholesterol content) is a concentrated source of high quality nutrients. Even the shell has large quantities of calcium. Where do these nutrients come from? Usually they come directly from the body stores of the hen. Combine this with the fact that most pet birds are fed nutritionally inadequate diets and it is easy to see where a serious problem can develop. Additionally, the hormonal changes involved in the reproductive process of the female temporarily makes them less enjoyable as pets.

#### What Can Be Done?

Now that we have established that CEL is a problem, what can be done about it? There are essentially three levels of treatment for CEL. The first is behavioral and environmental modification. The second level involves hormonal manipulations involving administration of synthetic male or female hormones. The third level is surgical hysterectomy.

#### **Behavior and Environmental** Modification

Behavior and environmental alterations work best in those species that are seasonal in their breeding habits. Year round breeders such as Cockatiels may temporarily respond but often will revert to egg laying when the techniques are suspended.

Specific techniques involved are:

- Limit light to six to eight hours per day. At all other times the bird must be kept in total darkness.
- Disrupt the environment by moving the cage to another area.
- Cut the moisture content and caloric content of the food. A change to pellets may be good here as they will help replenish nutrients and are dry and lower in calories than seeds. Ask your avian veterinarian for a diet change program.
- Minimize petting, stroking, and attention until egg laying ceases. Some pet birds see the owner as a mate and this type of handling may encourage reproductive behavior.
- Leave the eggs with the bird or replace them with "dummy" eggs. The size of a clutch of eggs is often determined by the size of the brood patch and many hens will stop laying when a certain size clutch is obtained. Removing the eggs as they are laid may encourage the bird to replace those removed.
- Remove any nesting boxes or other structures or materials that may be used for nesting.

#### **Hormone Therapy**

Many birds will either not respond to the above manipulations, will respond only temporarily, or will return to egg laying when the techniques are discontinued.

In these birds, hormone therapy may be indicated. Traditionally, a synthetic progesterone, medroxyprogesterone (Depo-Provera), has been used. An injection is given under the skin and is absorbed over a period of weeks. This hormone will work for four to eight weeks. This drug, may lead to serious problems such as obesity, fatty liver, or diabetes, so this drug is not recommended for repeat



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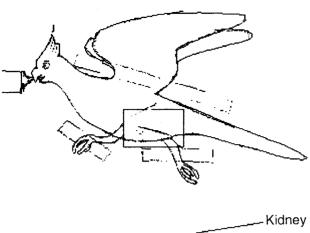
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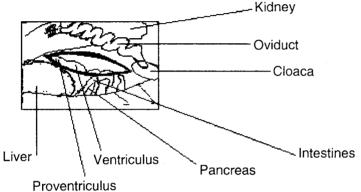
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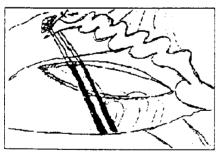
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### Lateral Laparotomy

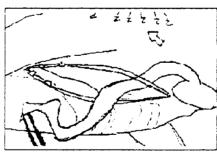




## Salpingohysterectomy



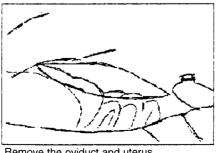
Grasp the infundibulum. There is a vessel from beneath the ovary requiring coagulation or clip.



Uncoil the oviduct, coagulating or clipping the vesseis dorsally as they are encountered.



Apply a vascular clip at the vagina.



Remove the oviduct and uterus.

"offenders." Another drug, mibolerone, is a synthetic testosterone and also will inhibit egg laying. For those that are very persistent, this drug may be preferable to Depo-Provera. This hormone (called Cheque-Drops) is put in the drinking water at a rate of three to four drops per ounce of drinking water. The side effects of this medication are not as severe but may include male-like behavior or liver damage. In the past few years, human chorionic gonadotropin (HCG) has been used with fair success. This drug stimulates a surge of progesterone and will cause a disruption of the ovulation cycle. It may require more than one injection to be effective and some birds become refractory to its effects. These drugs should be considered short term solutions. They should be used cautiously, and with close supervision from the avian veterinarian.

#### Surgery

In cases where the above measures have not been successful, or in those that have had egg related complications, such as egg binding, egg related peritonitis, or ectopic eggs, a hysterectomy may be indicated. This is a surgical procedure, more appropriately called a salpingohysterectomy, involving the removal of the oviduct and uterus of the hen. This is the only permanent method of preventing egg laying. The ovary is left intact and consequently the bird may still go through the behavioral changes associated with egg laying, but the follicles are apparently resorbed and do not cause harm. Methods for removal of the ovary have generally proven too risky or ineffective when the ovary is mature. While a hysterectomy involves greater risk in the short term, once completed there are no long-term complications. Obviously it will not allow later reproduction if this is desired. Most often, the bird is first given hormones to bring the ovary and oviduct into an inactive stage before surgery. Birds having hysterectomies will stay in the hospital for one to four days depending on their original condition.

Whatever treatment protocol is used, it is important to follow the veterinarian's instructions to give the treatment the best chance to succeed.