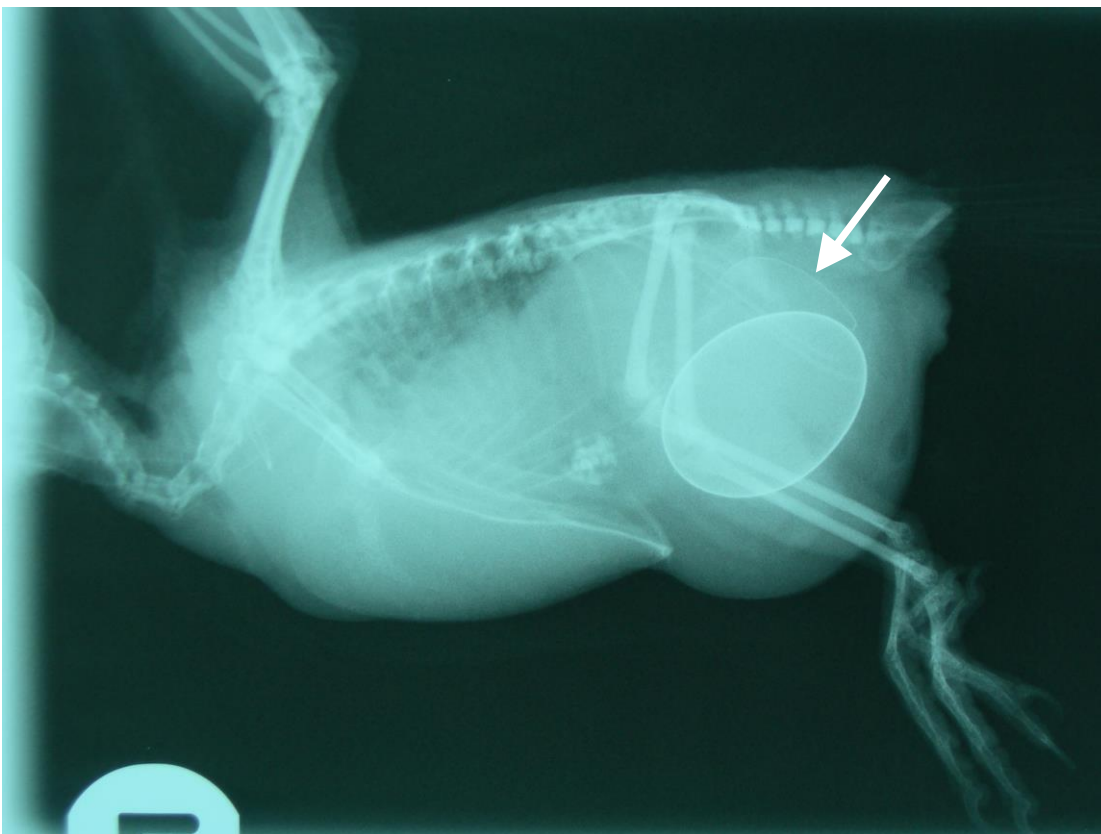


## A Case of Egg Binding in a Cockatiel

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A four year old, entire female, silver pearl cockatiel, named Lulu, was presented to the clinic. Lulu had been unwell for the last couple of days, and had fluffed feathers and watery faeces. Lulu had been laying eggs until she became sick. She had started laying a couple of years ago, two to three times per year. Her diet consisted of seed and a small amount of fruit and vegetables fed sporadically. Lulu also had access to cuttlefish bone. The bird recently received a seed block that it normally loves, however she only ate half this time. On veterinary examination, she was very overweight, weak, depressed and had fluffed feathers. There were faeces stuck to her vent (external constipation). The feather quality was poor. There was abdominal distension, and an egg-like structure could be palpated within her abdomen. She was in respiratory distress and exhibited a distinct tail bob.

It was suspected that Lulu was egg bound. A radiograph was performed (which can be seen below) that confirmed the diagnosis. Two eggs can be seen in the radiograph below; one fully formed, intact egg and a second collapsed egg (indicated by the white arrow).



In addition to a radiograph, her faeces were examined under the microscope. There were no problems detected. Blood tests were also performed which showed that she had severe inflammation and some minor liver problems. The inflammation was due to the egg binding and the liver problems were likely to be dietary based (a seed diet causes liver disease in birds).

Lulu was hospitalised. Calcium was administered by injection into the pectoral muscle. This was given as it is required for the oviduct to contract and expel the egg. Leuprolide (lucrin) therapy was initiated; this medication reduces oestrogen levels in the bird and therefore reduces reproductive activity. This allows time for healing of the reproductive tract and prevents further cyclic activity. Pain relief was also provided to make Lulu more comfortable. Nutritional support was given by force-feeding with Roudybush formula 3. She was also placed in a heated room.

Lulu had still not passed the egg the following day. Therefore she was given a short general anaesthetic and the intact egg was imploded (collapsed). This was done by placing a needle through her abdomen and into the egg and withdrawing the contents of the egg using a syringe. The following day, Lulu had still not passed the egg remnants. She was becoming increasingly more lethargic and was inappetent. It was decided that a caesarean and salpingohysterectomy was required as she was failing to improve. This was successfully performed. The day after surgery, Lulu was bright, eating and passing normal stools. She was discharged that afternoon with antibiotic medication and pain relief for seven days. Conversion to a pelleted diet was recommended after her two week revisit.

There are many causes of egg binding. Obesity can result in obstructive egg binding by reducing the diameter of the outlet for the egg. These birds are also generally less fit. Birds are prone to obesity if they receive inadequate exercise or they are fed high energy diets (e.g. seed). The egg may also become bound if it is malformed. Hypocalcaemia (low blood calcium) can result in soft-shelled eggs which birds find difficult to pass and low calcium levels also result in muscle function weakness within the reproductive tract. Chronic (long-term) egg laying may result in fatigue of the reproductive tract and lead to egg binding. This is a common problem in companion birds, particularly cockatiels. Factors contributing to chronic egg laying include being fed high energy, high fat diets (e.g. seed, bread, pasta, rice and potato), providing nesting boxes and nesting material, removing eggs from the bird before it loses interest in the egg, long day length and inappropriate bond formation between a bird and the owner. Other causes of egg binding include damage and infection/inflammation and neoplasia of the reproductive tract and egg yolk peritonitis. Other primary diseases, which cause weakness, can also contribute to egg binding. Nutritional deficiencies or excesses (e.g. vitamin E1, selenium, calcium, vitamin D3) have been associated with egg binding.