

# Digestive Tract Problems in the Ringtail Possum

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For

National Wildlife Carers Conference 2004

Penrith

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When I first began caring for possums I was taught that all possums eat the same things, it's just that Ringtails are fussier. My first 2 animals were orphaned Ringtails & I have been fascinated by them ever since but I learnt the hard way losing only the second animal at around 350 grams. I had no idea at the time what had happened but made general notes anyway. Those notes were made ten years ago & the symptoms I described are the same as I still see today.

Last year Beverly Young from Syd Metro Wildlife Rescue presented a paper on data provided by Dr Terri Bellamy BVSc. In that paper Dr Bellamy describes 3 different problems that carers can come across in Ringtails all of which are referred to as "bloat". In my presentation I would like to reinforce what Dr Bellamy has stated & offer with my own case observations and recommended responses.

## **BACTERIAL INFECTION:**

## **COMMON**

Diarrhea & a build up of gas in the lower gastro-intestinal tract usually accompany bacterial infections. When this occurs in a pinkie it is possible to see, under the skin, large pockets of gas moving around in the Gastro Internal Tract (GIT).

### **Symptoms:**

Loose stools sometimes very mucousy, lack of appetite, raised temperature, unsettled when usually restful.

Treatment:

### **Treatment:**

Treatment for any infection is antibiotic therapy however in many cases, due to the tiny size of the animal, available antibiotics do not seem to work fast enough & the bacteria can cause death in a matter of hours. Infection is almost impossible to detect until it is too late. If the animal is older & more resilient & is coping with the antibiotics but remains bloated with gas gripe water or Infacol Drops may of use .

### **Prevention:**

Good hygiene & minimal stress.

## **GASTRIC TORSION:**

## **UNCOMMON**

Gastric torsion is a twist in the GIT that causes blockage. I have not knowingly encountered this problem in a ringtail but am aware that this can happen in various other species through feeding wet foods too fast &/or vigorous exercise soon after eating/drinking,.

### **Symptoms:**

Almost immediate swelling of the abdomen occurs as gases & solids build up. The results can include internal ruptures & bleeding, severe electrolyte imbalance, hypo tension & shock. There is a high mortality rate across all species in such cases.

### **Treatment:**

This problem requires immediate surgical intervention by a veterinarian.

### **Prevention:**

Feed milk slowly, do not allow the possum to become stressed or excited while sucking & avoid excessive energetic exercise immediately after feeding. Most joeys simply want to curl up & sleep after a feed & are most energetic when hungry so encourage joeys to play/exercise before feeding.

**CAECAL STASIS:****COMMON**

The term “caecal stasis” simply means static or blocked caecum. Studies into the reasons we so often see GIT problems in hand-raised Ringtails are few. Dr Bellamy believes the malfunction is due to abnormal development of the caecum where by it dilates rather than developing with the usual sac like divisions & problems can start to become obvious anytime from weaning through to sub-adulthood.

**SYMPTOMS:**

Early stages – Drop in general condition especially coat, Animal starts to feel skinny/bony but belly is distended & spongy to the touch.

Mid stages - Definite distention in abdomen that feels like a firm sponge, drop in faecal pellet size & quantity, increased appetite & possible thirst, coat is dull & the under coat fails to develop properly.

Late stages - Gross distention of the abdomen (footballs with legs describes them well), by this stage the effects I have seen are those of malnutrition. The face is gaunt but the belly is huge, the appetite is huge but pellets are fewer & farther between & remain small, signs of acute pain such as general restlessness & twisting & grabbing at flank area. Possible onset of secondary infection such as pneumonia.

**TREATMENT:**

Treatment regimes vary greatly from carer to carer & according to everyone I have spoken with there is no consistency in any recovery rates as yet with some ringtails developing caecal stasis while in care yet surviving happily post release.

Successes in the past have been attributed to the use of Infacol Drops & gripe water, probiotics, Impact (immune system booster), activated charcoal, poo tea, etc.

**PREVENTION:**

Various preventative measures have also been taken in the past with no proven successful results.

**Papping:**

Papping is when the mothers of certain species activate their joey’s caecum by excreting contents directly from their own caecum. This action establishes the bacterium that, is vital to the joey’s ability to break down the plant cell walls & thereby access the nutrients inside.

It is possible that by providing the same for ringtail joeys at the correct time we may help stimulate normal caecum development & function. In nearly all cases where a possum survived caecal stasis to be released poo tea had been fed.

**Antibiotic/Antifungal therapy:**

Dr John Hanger & the team at Australia Zoo have recently had stunning success in the survival rate of pinkie koala joeys through the routine use of Septrin & Nilstat until just before papping when the joeys are weaned off both preparations. Is it possible that we can apply the same therapy to our Ringtail joeys & get a similar result? This has not been tried to date but Australia Zoo have expressed an interest to run trials.

**Vaccination:**

Recently in Brisbane Dr D Blyde ex Western Plains Zoo now resident at Seaworld on the Gold coast presented data on a vaccine (Filtravac by CSL) that he believes helped raise the survival rate of macropod joeys while at the zoo. Filtravac is an 8 way vaccine & one of the components attacks a bacteria called clostridium perfringens which, in itself is not too harmful however it produces a toxin that causes enterotoxemia. Dr Blyde freely admits that results to date are inconclusive & is looking to further trial this vaccine in possums.

Recommend contacting Dr Blyde to discuss this approach in greater detail.

**SUGGESTION:**

The establishment of a national special interest group focused on the Ringtail Possum.