

# A VN's guide to degus part two: common health issues

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**Wendy Bament** RVN, MSc, BSc(Hons) discusses the range of conditions and diseases in degus presented in practice

**PART one of this article (*VN Times*13.01; January) discussed the origins, husbandry and behaviour of degus; this article addresses the more common health problems seen in this species, as well as listing CPD questions relating to both parts.**

## Common health problems

The use of degus over the past 30 to 50 years in a research setting has improved scientific knowledge about diseases this species may be resistant to and susceptible to. However, there are few reports of health problems naturally occurring in pet degus.

### Dentistry

Dental disease is a common complaint seen in practice. It is particularly prominent in elderly degus, which are classically presented with coronal and apical elongation<sup>8</sup>. Also seen is apical incisor damage and apical cheek teeth elongation leading to invasion into the nasal passage and eye socket<sup>8</sup>. During a degu dental, it is important to ensure the mouth is not opened too wide and for too long (no more than 15 to 20 minutes at a time) as this may cause damage to the temporomandibular joint and stretching of the masticatory muscles<sup>8</sup>.

### Eye problems

Ocular issues in degus are usually a result of dental disease, diabetes mellitus, fighting or conjunctivitis, caused by excessive dust bathing. Systemic antibiotics, topical eye treatments, dentistry and analgesia should be considered when treating these conditions, as well as husbandry adjustments.

## **Gastrointestinal**

### **Hepatic lipidosis**

When obese individuals become anorexic, subcutaneous and internal fat stores are mobilised as an energy source, overwhelming the liver with free fatty acids and potentially resulting in liver failure. The degu becomes depressed and lethargic, high bile acids and hepatic enzymes are identified on blood samples and the liver appears enlarged on radiographs. Elevated levels of hepatic enzymes are also associated with diabetes (see later), but will occur with pregnancy<sup>12</sup>.

### **Skin**

Pododermatitis of the hind feet is commonly seen in pet degus, and is characterised by ulceration of the hind and/or fore feet. The environmental or nutritional cause should be corrected and treatments applied where applicable, such as barrier creams (Sudocrem) to aid healing and analgesia to relieve discomfort.

### **Parasites**

Dermatophytes, such as *Trichophyton mentagrophytes*, or rodent ringworm, is a zoonotic condition in degus typically seen as alopecia affecting the muzzle, ears and feet<sup>13</sup>. The condition is best diagnosed by culturing a skin scraping or plucked hair on Sabouraud's medium<sup>14</sup>.

### **Tail degloving or tail-slip**

Tail degloving usually occurs due to trauma arising from poor handling or, occasionally, from bite wounds from cage mates. Amputation is required before infection is introduced. The recommended protocol is to make the incision 1cm to 2cm cranial to the injury<sup>1, 3</sup> ([Figures 10](#), [11](#) and [12](#)).

### **Respiratory disease**

Degus will exhibit respiratory problems and irritation to their mucous membranes if they are exposed to dusty or poorly ventilated environments. Ocular and nasal discharge, sneezing and dyspnoea may be seen, as well as general signs, such as lethargy, anorexia and poor coat condition. Treatments may include oxygen therapy, antibiotics, fluids and nutritional therapy<sup>3</sup>.

## Urinary tract health

### Diabetes mellitus

Type-2 diabetes develops spontaneously in degus due to intolerance to a high-sugar diet and the resulting obesity. This may lead to secondary liver disease, such as hepatic lipidosis<sup>15</sup> (see aforementioned section). Diabetes in degus is characterised by high blood sugar levels (>11.1mmol/L where normal values are around 8 mmol/L; [Table 1](#)) due to inadequate insulin production or failure of cells to respond to insulin normally produced (resistance). Other symptoms include polydipsia and polyuria, polyphagia (and the resulting obesity) and cataracts can develop four weeks from the onset of type-2 diabetes<sup>4, 16</sup>. Urine samples may be obtained using a small container when assessing an animal's bodyweight for example, as it will be slightly anxious, or by using an incontinence pad with the non-absorbent side up.

## Reproductive disease

Breeding problems are commonly seen in degus. These include dystocia and pregnancy toxaemia, which can be prevented if breeding is started when the female is between four and nine months of age and with a bodyweight of 250g<sup>10</sup>. Postnatal pathological changes have also been documented in pet degus and care should be exercised to ensure normal environmental conditions during and after parturition and progression of pups<sup>17</sup>.

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## Questions

**1 Rough handling of degus is likely to cause what reaction?**

- A) Prolapse of the eye
- B) Fur slip
- C) Degloving of the tail
- D) Tonic immobilisation

**2 What does the genus name *Octodont* specifically refer to?**

- A) They have a total of 8 cheek teeth
- B) The occlusal surface of their cheek teeth demonstrate a figure-of-eight shape
- C) Each molar has 8 edges creating an octagonal shape
- D) The number of directions or planes the upper and lower cheek teeth can glide across each other

**3 Which of the following is false?**

- A) Degus often produce concentrated, thick urine
- B) Degus require a regular, temporary access to a sand bath
- C) Degu pups are born with eyes and ears open as with other Hystricomorph rodents
- D) Degus have been used in research to test the development of attention deficit hyperactivity disorder seen in humans

**4 In a breeding pair of degus, what is the best course of action, considering an ideal captive environment?**

- A) Remove the male degu from the cage and return only when the offspring are fully grown and moved to another enclosure
- B) Remove the female before parturition to a new, clean cage where there is no scent of the male
- C) Only prevent physical contact between male and female (and offspring) by either a divider put in place in larger cages or placing two wire cages next to each other
- D) Do not separate the pair throughout parturition and rearing of the young

**5 What is the presence of cataracts most likely to imply in pet degus?**

- A) Diabetes mellitus
- B) Poor quality bedding
- C) Old age
- D) Ocular infection

**ANSWERS DEGUS:** 1C, 2B, 3C, 4D, 5A