

## **Rabbit Welfare & Behaviour: Low-Stress Management at the Veterinary Clinic**

Deborah Fry BSc (Hons) MSc CCAB / © Deborah Fry

The following information is aimed at reducing stress and optimising welfare in rabbits that need veterinary treatment, or so that first-aid behavioural advice can be given to owners that report changes in their rabbit's behaviour to their veterinarian. In turn this can optimise physical health outcomes. It is generic advice given from a behaviour perspective, which may need to be adapted for individual patients and their health needs.

### **Behavioural signs of stress, disease or pain in rabbits**

Most veterinary staff will be familiar with outward signs of stress in rabbits within a veterinary environment. These may include tensing, wide eyes, upright or flat ears, freezing, attempts to flee, grunting, leg-thumps, lunging, biting or tonic immobility. Caregivers may report that at home their rabbit is withdrawn, aggressive or engaging in repetitive behaviours such as bar-biting, pica, barbering or fur-chewing. They may also report problem behaviour such as toileting outside of their allocated resources, destruction or aggression towards other rabbits.

As a prey species, a rabbit's anatomy, physiology and behaviour is adapted to avoid threats and predation. If they perceive something to be dangerous, they may freeze, flee or use ascending signalling, but their environment may compromise their ability to feel safe. As a result, a rabbit may perceive that it is necessary to resort to aggressive behaviours, although in general rabbits will avoid a stressor with opportunity rather than aggressing.

Rabbits naturally mask signs of disease or pain, as this could increase their risk of predation. Owners can be encouraged to observe their rabbit's behaviour so that they can spot deviations from the 'norm'. This may be huddling, drooling, grinding teeth, leaving caecotrophs on the ground, lack of co-ordination, head-tilt or changes to sociality, activity or grooming. There are validated tools which allow pain to be assessed, such as the Rabbit Grimace Scale developed by Newcastle University (NC3R's, 2018), using facial expression in conscious rabbits to assess pain. This relates to orbital tightening,



cheek flattening, nostrils forming a v-shape rather than u-shape, ears being tightly folded, cylindrical or rotated and facing hindquarters, or held close to the back or body sides. However, these should be considered along with other potential signs of pain or ill health.

### **Recognising an emergency**

Veterinary reception staff are likely those that rabbit owners initially liaise with. They should therefore be trained to gather necessary information to understand if the rabbit may be in an

emergency situation. Species-specific questions include whether the rabbit has collapsed or has head-tilt or seizures / if they have breathing difficulties including mouth-breathing or nostril-flaring / if there is heat-stress, fly-strike, trauma or bleeding / if there is paralysis or abdominal bloating / if there is a slow labour in the case of a pregnant rabbit / if the rabbit is eating and if not, when it last ate voluntarily / if there are changes to faecal consistency, including diarrhoea, and if the rabbit is passing faeces (Varga, 2014). With faecal changes, owners should be asked if they have checked the rabbit's perineum for soiling or fly-strike.

## **Preparations for veterinary visits**

In non-emergency's, it may be helpful for owners to take some video-footage of their rabbit under normal home conditions, using i.e. a smart phone, so that this can be assessed at the veterinary clinic. Owners could also be asked to count their rabbits breathing rate (based on visible chest movements) over a minute, under normal home conditions, and to share this information with their veterinarian. These consider that rabbits may be too stressed in a veterinary environment for the vet to know what is normal for that rabbit. If relevant, owners can also be asked to place some of their rabbit's faecal pellets in a container and to bring that into the surgery, so that the rabbit's general faecal health can be assessed.

Rabbit's should always be transported to their vets in a secure carrier rather than 'in arms'. This should ideally be one which is part of their normal environment, rather than only being used for stressful events, which opens easily and quietly, with a door at the front and which can also have the top lifted so that it separates into two parts. The pet carrier should contain familiar hay, water and towels which allow partial-hiding and traction, and which absorb car vibration and allow the rabbit to be lifted out within the towels if needed. The pet carrier and towels should **not** contain scents of stressors or other animals besides the rabbit and any bonded companions, nor that of prior stress pheromones. To remove these, the pet carrier can be cleaned in advance with a minimally-scented enzymatic cleaner or a 10% solution of biological washing liquid dissolved in hot water, before being rinsed and allowed to dry. The pet carrier should be secured in the car on the way to and from the vets, and unnecessary stressors such as having a radio on or slamming car doors, should be avoided. Rabbits are vulnerable to heat stress and should therefore never be left in a hot car. The rabbit should travel in its pet carrier with any bonded companions if possible, with the pet carrier partly covered with a towel so that the rabbit feels less exposed but still has adequate ventilation.

Once clients arrive at the vet practice, the rabbit and pet carrier should be placed in an area away from predatory species such as dogs and cats. Alternatively, vet staff may feel it best for the rabbit(s) and pet carrier to remain in the owner's car until the vet is ready, if the car is not too hot. The veterinarian should ensure that the consultation room table, floor, weighing scales and other equipment, and their own hands and ideally their clothing, do not contain the scent of predatory species. The table, scales or floor that the rabbit may be examined on should be covered in a rubber mat or towel so that the rabbit does not slip and has traction.



## **Examinations and treatment**

Veterinary examinations and treatment should occur in the quietest room available - ideally well away from the sight, sound and scent of predatory species, and away from bright lights, sudden movement or loud noises including sonic and ultrasonic. Staff trained in low-stress handling should assist if possible, and handling should be gentle for the rabbit. The rabbit should be predictably approached from in front rather than above (the latter would mimic a predator) if possible, avoiding their 60-degree caudal blind spot. This could be via the front of their pet carrier, or predictably from above (at an angle), with the top part of the pet carrier removed. Care must be taken to avoid the rabbit causing injury to itself by jumping from a height or physically struggling. They should be examined and treated from within their pet carrier if possible, or placed on a non-slippery surface. If needing to be held, they should be picked up with one hand under their chest and the other, scooping up their bottom. Their body should then be supported securely against their handler's chest. Picking a rabbit up by its ears or scruff, or laying it on its back to induce a dorsal immobility response, must be avoided. If the rabbit is struggling or aggressive despite gentle and predictable handling attempts, it can be wrapped snugly in its towel for essential examinations or treatment.

Rabbits can benefit from being given a degree of choice where practical; including with investigating the environment or equipment and having stress-reducing pauses if needed. Food could be offered as a distraction from stress and to promote good associations. When treatment is complete, the rabbit should have access to their familiar pet carrier.

## **Admitting patients**

If the rabbit needs to be admitted, they should be placed somewhere quiet and dimly-lit (their sight is adapted for dawn and dusk light intensities). This should be ideal in terms of ventilation and shelter from extreme temperatures, as it is unlikely the rabbit will have the environmental complexity such as cool soil to adjust their body temperature. They should be located away from predators and stressors (visual, sound and scent-based), ideally with their bonded companion and familiar objects that carry home scents. If bonded rabbits need separating at any time, owners should be advised on the need for scent-swapping prior to supervised reintroductions in neutral territory. This can be achieved by gently rubbing each rabbit with the same cloth and swapping each rabbit's bedding. Veterinary interventions can alter the scent and behaviour of rabbits, which may disrupt recognition and social bonds.

Rabbits benefit from having environmental choices at all times. Their housing in a veterinary context should be partly covered, and this should have non-slippery flooring and contain a sanctuary area to hide in or behind; ideally with more than one entrance and exit area. A wide tunnel such as a drain pipe cut-off, or a cardboard box with the base and two large holes cut out, can offer this. Rabbits also benefit from having access to an elevated platform, such as on top of a cardboard box. The height of the overall housing should be such that the rabbit can sit or stand fully on their hind-legs to periscope and scan the environment. They should ideally have horizontal space to make at least three continuous hopping movements.

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Owners can be asked about their rabbits preferences for bedding and toileting substrate - so that this can be replicated or provided by owners if feasible. A small amount of the rabbit's soiled toileting substrate provided by owners can provide familiarity and encourage use of a specific latrine area. When it is necessary to clean the latrine area, some soiled substrate should be transferred back to it.

In general, good quality unlimited forage including hay should be provided. Owners can be asked about their rabbits preferences for other food-types; particularly if appetite is poor. Owners may be able to provide the rabbits preferred hay and other food items. The rabbit can be provided with food enrichment whilst in the vets, including scattered food to encourage foraging and activity feeders made using toilet or kitchen roll cardboard tubes which are tightly packed with hay, herbs and food treats - with the ends folded over.

## **Advising clients who need to administer medication or treatment to their rabbit**

If rabbit owners need to administer oral or other medication to their rabbit on a one-off or regular basis, or if they need to bath or brush their rabbit or prepare their rabbit for vet visits, please refer them to the FAB Clinicians handout 'Rabbit Welfare and Behaviour: Low-Stress Management to Maintain Health'.

## **Stress within the home environment**

If owners report signs of stress in their rabbit at home, they can be advised to ensure that their rabbit's environment and resources are optimal so that the rabbit feels secure and has outlets for species-specific behaviour. The rabbit should have housing which, as a bare minimum, allows them to stand fully and make at least three continuous hopping movements. They should also have an exercise area; ideally with ability to access this at will including at dawn and dusk. Housing and exercise areas are best if attached (i.e. a modified shed) or connected via a burrow pipe system. Housing should be secure from predators, and it should consider movements, shadows, reflections, UV-exposure, ventilation and shelter from extreme temperatures, draughts and noise including sonic and ultrasonic. The rabbit should have access to complexity including non-hazardous elevated platforms, tunnels, drain pipe cut-off's or cardboard boxes with opposite entrance and exit areas cut out, and soil to burrow in or turn over to expose a cool area to lie in. Diet should be appropriate regarding nutrients and activity budgets, with unlimited access to good quality hay and activity feeders considered (see the Rabbit Welfare Association and Fund website and Fellowship of Animal Behaviour Clinicians





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YouTube channel for more food and enrichment information). A rabbit's social needs should be met through appropriate conspecific pairings or ideal and abundant human company.



If owners have concerns with their rabbit's stress or behaviour, they can visit the following websites to find a Clinical Animal Behaviourist:

Fellowship of Animal Behaviour Clinicians (FAB Clinicians) <https://fabclinicians.org/>

CCAB-Cert Ltd Certificated Clinical Animal Behaviourist (CCAB) <https://www.ccab.uk/>

Animal Behaviour and Training Council - Clinical Animal Behaviourist <http://www.abtcouncil.org.uk/>

## **References & Information Sources**

### **Information sources:**

Rabbit Welfare Association and Fund (RWAF) ([www.rabbitwelfare.co.uk](http://www.rabbitwelfare.co.uk))

Wood Green Animal Rescue and Re-homing (<https://support.woodgreen.org.uk/>)

Fellowship of Animal Behaviour Clinicians ([www.fabc.org](http://www.fabc.org))

### **References:**

Rabbit Grimace Scale developed by Newcastle University / Owned by NC3R's and Partners (2018) (Accessed 27th March 2024) Avail at: <https://nc3rs.org.uk/sites/default/files/2022-01/NC3Rs%20Rabbit%20Grimace%20Scale%20Poster%20%28EN%29.pdf>

Varga, M. 'The rabbit-friendly practice' in BSAVA Manual of Rabbit Medicine (2014) BSAVA: UK.

### **Clinical Animal Behaviourist register's**

Fellowship of Animal Behaviour Clinicians ([www.fabc.org](http://www.fabc.org))

CCAB Cert Ltd-registered Certificated Clinical Animal Behaviourists <https://www.ccab.uk/>

ABTC-registered Clinical Animal Behaviourists ([www.abtcouncil.org.uk](http://www.abtcouncil.org.uk))