



Welcome to our latest newsletter written specifically for v-gel® customers and all interested Veterinary Professionals. We hope you find the content useful, but please be sure to find more information on our website www.docsinnovent.com. You can also follow us on Facebook: Docsinnovent, the home of the v-gel®

Using v-gel® in dentals

Whilst the original v-gel® gave superior performance in airway management, there were some limitations when it came to dental procedures – mainly being space limiting and water-tight seals.

The v-gel® Advanced...

are now ideal for most dental procedures in all 3 species

- the material used and change in design has improved the seal pressures
- The bowl now seals around the whole of the glottis completely isolating it.
- Both rabbit & cat devices are slimmer in the mouth giving greater access.
- The large connector wings have been streamlined to improve access.



CATS: Most dentals are performed on adult cats, so typically a C3, C4 or C5 would be suitable for small to larger adult cats.



Dog v-gel® size should be selected on head shape and ideal body weight and the placement /seal should be assessed by leak testing with IPPV before continuing.

There is an excellent webinar on airway management for dental patients available, for free, on our website: (www.docsinnovent.com/webinars)

The newest cat v-gel® size

With the launch of the v-gel Advanced came the addition of the **C0**. This new size cat v-gel® has been introduced to cope with the smaller breeds such as the Singapura and kittens of around 6-12 weeks (standard domestic cats). These small patients can be very challenging to intubate and so the **C0** gives a much quicker and safer airway such as early kitten neuters or emergencies. Certainly, a size that ought to be available in every cat clinic.



Fluid Seal with ETTs

Tradition has always been to use an endotracheal tube with cuff inflated to create a fluid seal, however, things are not always as they seem. Research shows us, that there are substantial variations in fluid aspiration, relating to cuff material and design. This variability in performance is due to the random manner in which involutions folds form in the inflated ETT cuff, especially when re-used multiple times. Fluid leakage past tube cuffs occurs in all conventional endotracheal tubes at cuff pressures from 10 to 60 cmH₂O, the better results being on lubricated tubes.

So, the best-case scenario, using a new, lubricated ETT with a safe seal pressure will only provide a short time of fluid seal. Given that a lot of dentals can run to an hour or more, there is a large risk as aspiration during the procedure and again once the cuff is deflated and device removed.

Fluid Seal with v-gel®

The bowl of the v-gel® completely lines the pharynx and isolates the glottis. The distal tip plugs the oesophagus and, in the cat and rabbit devices, will halt the reflux entering the pharynx, whilst the dog v-gel® has the gastric channel diverting any reflux passed the isolated airway.

This isolation of the upper airway prevents fluid (gastric reflux or coolant water) reaching the patient's airway and noticeably gives better recoveries with no gurgling patients!



Dog v-gel® showing separate gastric and airway channels



ETT References

1. https://web.archive.org/web/20190501111738/https://www.zora.uzh.ch/id/eprint/155973/1/ZORA_NL_155973.pdf
2. <https://associationofanaesthetists-publications.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-2044.1997.149-az0153.x>
3. <https://link.springer.com/article/10.1007/s00134-003-1933-6>
4. <https://link.springer.com/article/10.1007/s00540-010-0871-z>



Size selection

The v-gel® size guides do give a very good starting point when selecting the required size but, like any airway device, there should ideally be a selection of sizes available for the patient. Sometimes the first choice is not always the best one and an improved, safer seal can be gained by increasing or decreasing the size of the device. Looking at the guides, it's easy to assume you can omit to stock some sizes, as there can be a cross-over, but the v-gels® do increase gradually in length and pharyngeal bowl size, so to miss a size out could limit that ideal placement.

When purchasing the v-gel® for the first time, we would always recommend your clinic stock at least 2, preferable 3 consecutive sizes of both cat and rabbit devices, and all 4 dog sizes in order to get the result for your patient. Once experience is gained, and the initial stock is gained, then items can be purchased on an ad hoc basis.










CAT v-gel® Sizing Guide		
Size	Ideal body weight of cat	Product code
C0	0.5 – 1kg (1 – 2lb)	D40000
C1	1 – 2kg (2.5 – 4.5lb)	D40001
C2	1.5 – 3.5kg (3 – 8lb)	D40002
C3	3 – 5kg (6.5 – 11lb)	D40003
C4	4.5 – 6kg (10 – 13lb)	D40004
C5	6kg+ (13lb+)	D40005

RABBIT v-gel® Sizing Guide		
Size	Ideal body weight of rabbit	Product code
R1	0.6 – 1.5kg (1.3 – 3.5lb)	D30001
R2	1 – 2kg (2 – 4.5lb)	D30002
R3	1.8 – 3.5kg (4 – 8lb)	D30003
R4	2.5 – 4kg (5 – 9lb)	D30004
R5	3.5 – 5kg (8 – 11lb)	D30005
R6	4.5kg+ (10lb+)	D30006

This table is intended to be a guide only. The right size v-gel® advanced will be determined by the size and shape of a dog's pharynx, which varies depending on the breed, size and head and neck shape of the dog.

Head shape – Brachycephalic	Lean weight of dog	Head shape – Mesocephalic	Lean weight of dog	Head shape – Dolichocephalic	Lean weight of dog	Size/ Product code
	6 – 10kg 13 – 22lb		4 – 7kg 9 – 15lb		2 – 4kg 4.5 – 9lb	D3 = D20003
	9 – 15kg 20 – 33lb		6 – 10kg 13 – 22lb		4 – 7kg 9 – 15lb	D4 = D20004
	14 – 20kg 30 – 45lb		9 – 15kg 20 – 33lb		6 – 10kg 13 – 22lb	D5 = D20005
	19 – 26kg 42 – 57lb		14 – 20kg 30 – 45lb		9 – 15kg 20 – 33lb	D6 = D20006

Size selection (cont...)

Don't forget, very young rabbits may require a larger size than expected.

Immature rabbits for anaesthesia, commonly for neutering, are often presented with a lighter body weight than perhaps their head size would suggest. Very much like immature puppies that haven't grown into their ears, feet etc, these rabbits' heads will be out of proportion with their bodies, like our gorgeous example pictured here (courtesy of breeder Claire Harrison)



So, when considering correct size **v-gel**[®] for an immature patient, look at their head size and gauge what their ideal weight should be for the head size you are seeing in order to select the **v-gel**[®] from our size guide. You can also measure the oropharyngeal length, the distance between the larynx and incisors (following the line of the anatomical airway) and measure this against the length of the **v-gel**[®] (see image). The middle section of the pharyngeal bowl would lay level with the larynx and the incisors should lay on the airway channel just before it widens.

Major Benefits of v-gel[®]

- Devices that keep a patent airway without touching upper airway structures
- No narrowing of airway and therefore no increase in airway resistance
- No tracheal cilia trauma
- No laryngeal trauma
- No laryngospasms caused
- Low dead-space connectors
- No Inflation required
- Protection against regurgitation & aspiration
- Suitable for most head shapes!
- Comfortable for patients post-operatively - smooth recovery, no stridor and coughing
- Staff health and safety - minimal leakage of anaesthetic gas
- Quick and easy to place so airway can be established quickly

