



## McMASTER & HEAP VETERINARY PRACTICE

### A TURTLE EMERGENCY

Donatello is a very loved 17 year old male Red-Ear Slider turtle who presented to our clinic after falling from stairs onto a concrete surface and fracturing his top shell (Carapace). An open fracture was apparent, approximately 15cm across the end portion of his shell, and this was mildly displaced.

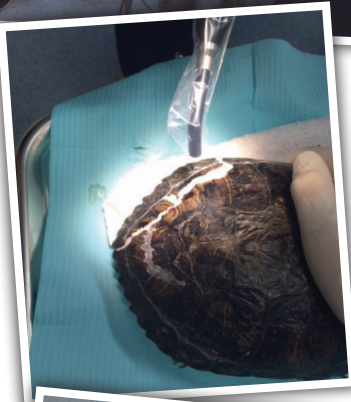
A turtle's shell provides physical protection, shelter for hibernation and storage for fat and calcium. The shell is made of dermal bone covered with horny keratin layers known as scutes. These scutes are similar to the scales of other reptiles and overlap the seams between the shell bones and add strength to the shell. Traumatic injury to a turtles shell is one of the most common problems turtles present to veterinary clinics for.

Donatello's fracture needed to be addressed as soon as possible - just like any animal with a fracture. He received pain relief and antibiotics while the wound was cleaned, decontaminated and local anesthetic was applied. The next step in repair was more out of the ordinary than usual for us at McMaster & Heap and involved working with our local human dental clinic - Halswell Dental Centre. They helped us to apply a *glass ionomer filling* which is a modern product used in dentistry for permanent tooth fillings. This material contains a special silicate cement which releases fluorine to provide a local antibacterial effect and increases binding of calcium to mineralized tissue. The cement binds to the calcium component of bones and gives it a high strength. This up to date modern way of fixing turtle shell fractures has been used with great success to seal the fractures and allow fast healing.

Once we arrived at the dental centre, Donatello was met with great enthusiasm. Thankfully with the help of one of their experienced dental surgeons, we aligned the fracture and applied the glass ionomer cement. As with our own dental fillings, a blue light was used to cure it and within a minute the fracture was stabilized. The glass ionomer cement will come off when the scutes are shed over time and the fracture heals.

Donatello went home the same day on pain relief and antibiotics. He will have to stay in shallow water for a few weeks to allow the carapace to heal completely. It was such a joy working with him as he was a very compliant patient and to see him walking around his enclosure straight after the fixation was great. He obviously felt a lot better now his shell was stable again.

**Dr Sara Hodgson**



*No problem is too big or small for the vets at McMaster and Heap. If we can't fix the problem directly we make sure we will find out who can. Thank you so much Sara for your enthusiasm, dedication and skill at solving Donatello's fractured shell. Good job done.*

*Also a very special thank you to the Halswell Dental Practice for helping Donatello. We couldn't have done this without you.*



**OPEN 7 DAYS**

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