USING VTS BONE GRAFTS IN DIFFERENT **SPECIES**

CAN I USE VTS GRAFTS IN DIFFERENT SPECIES?

Grafts from VTS are routinely used across a variety of species as xenografts. Many veterinarians use canine bone in their feline patients routinely and effectively. Our canine and equine bone grafts have been used successfully in many exotic or wild animals, including seals, birds, porcupine, and other injured animal species. Our Fusion Xpress bone putty is sourced from equine bone and is effectively used in canines and felines every day.

In short, veterinarians have been using our bone grafts across different species without a single reported issue for >10 years.

HOW IS THIS POSSIBLE?

Implanting processed bone graft across species lines is successful because immunogenic markers are disrupted and removed during processing. Modern tissue bank processing methods substantially remove these immunogenic elements and diminish any rejection responses. These days even in humans, no matching is required for bone grafts, not even blood group matching, and millions of bone & tendon grafts are successfully transplanted in people each year. No living cells and minimal cellular elements remain in the grafts to stimulate an immune response; furthermore, irradiation also reduces immunogenicity. These steps make modern, processed grafts very different from past eras where fresh frozen grafts were used in with more limited success.

Another important feature to consider is that bone growth factors are well-conserved across species, so much so that the growth factors in almost all types of bone effectively stimulate osteoprogenitors from a wide variety of different species. A prime example that most vets have heard of is that human Bone Morphogenic Protein (BMP-2) is very effective in canines for example. In fact, the most routinely used osteoinductivity assay for bone grafts from all species, including humans, relies on the responsiveness of mouse-derived osteoprogenitor cell lines.

PUBLISHED RESOURCES:

Here is a link with quite a few published literature articles discussing the effectiveness of bone grafts used across species in a xenograft setting.

https://tinyurl.com/uf2lgmc