

Digital Radiowave Surgical Technology

We take anesthesia and pain management very seriously at Merrimack Veterinary Hospital and work very hard to keep your pet as safe and as comfortable as possible during any anesthetic procedure.

To achieve this we use some of the safest anesthetic drugs and most effective pain medications on the market, in addition to using state-of-the-art anesthetic monitoring equipment. To even further promote our patient's health and comfort, radiowave technology (i.e. radiosurgery) is a routine part of our surgery services.

Radiosurgery is a less painful method of cutting and clotting soft tissue by focusing high frequency, low temperature radiowaves through the tip of an energized electrode. The ultra high frequency radiowaves provide specific and delicate tissue interaction. This focused cutting and clotting effect minimizes the amount of tissue destruction so that healing is rapid and more comfortable.

The energized electrode cuts without pressure, unlike the steel scalpel, and causes only 10-15 microns of tissue damage while coagulating blood vessels. As a comparison, lasers cause thermal damage of about 250 microns along with being more awkward and less safe (for the patient and operator) compared with radiosurgery. With rare exception, this advanced technology is used by our doctors during *all* of our surgical, dental, and endoscopic procedures.

The following reasons summarize why radiosurgery is so much better for your pet:

- **Greater Patient Safety**
 - Decreased intra-operative bleeding (cauterizes as it cuts)
 - Decreased surgical time and less anesthesia (because of less bleeding)
 - Decreased post-operative infections (sterilizes as it cuts)

- **Faster and More Comfortable Patient Recovery**
 - Decreased post-op swelling and hematoma (i.e. blood blister) formation
 - Decreased post-operative scar formation
 - Decreased post-operative pain (because it seals nerve endings)