

HOW DOES A LASER SCALPEL WORK?

Our patients are treated with a carbon dioxide (CO₂) laser, the most widely used type of medical laser in the world. CO₂ lasers produce an invisible beam that vaporizes the water normally found in the skin and other soft tissue. Because the laser beam can be precisely controlled, it removes or "cuts" only a thin layer of tissue at one time, leaving the surrounding areas unaffected. This level of control allows us to be extremely precise in every laser surgery procedure.



The use of the Carbon Dioxide LASER largely replaces the scalpel in our office. We take great pride in being the first veterinary hospital in Owings Mills to use this laser. Our new laser works safely and effectively with a reduction or elimination of sutures, post-treatment pain, swelling and bleeding. Many procedures can be done in our office the same day, and without having to bring your pet back for surgery and an overnight stay. This will save you a lot of time. Our desire is to provide your pet the best health care possible, combining the latest advances in veterinary procedures with a personal commitment to your pet's health.

Advantages to Using CO₂ Laser Surgery

There are several advantages to the CO₂ laser surgery:

1. Pain Reduction

Your pet will experience significantly less post-operative pain in almost every instance. This reduction in pain is a result of the unique characteristics of the laser beam as it cuts nerve endings, preventing the raw ends that are characteristic of scalpel blades.

2. Swelling Reduction

Whenever an incision is made in tissue with either a scalpel blade or scissors inflammation is started in the affected tissue. This inflammation is a result of interaction with the circulatory and lymphatic systems. Because the laser beam effectively cauterizes the lymphatic system there is much less post-operative swelling. This makes your pet much more comfortable while it is convalescing from surgery.

3. Control of Infection

The laser beam operates at a temperature of over 200 degrees Fahrenheit. This makes it highly effective at killing bacteria that have the potential to cause an infection. This is particularly important in areas where it is difficult to prevent bacteria from contaminating the surgical site. Examples include abscesses and cat declaws.

4. Minimal Surgical Bleeding

When an incision is made with a scalpel blade small blood vessels are cut in the skin and the layer of tissue just under the skin. These blood vessels can ooze throughout the surgery and even postoperatively. Traditionally they are taken care of by clamping them with hemostats, cauterizing, or holding gauze sponges on them until they stop. All of these procedures take time, which means the surgery takes longer and there is more post operatively swelling. The laser scalpet is a highly effective coagulator of small blood vessels. Less bleeding during surgery means a faster recovery time.

Click on link below to view example of Laser Surgery:

[Spay Surgery](#)