**"DECLAW" SURGERY FOR CATS**

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"Declawing" of cats has been commonly performed for many years as it is an effective method to allow people to cope with a normal, but often objectionable, feline behavior. This normal behavior serves to both remove loose claw material (sharpen the claws) as well as to mark the territory of a given cat, both visually and by olfactory means (odor, pheromones). The correct medical name of the procedure is "onychectomy."

Onychectomy became controversial with some people for two reasons. First the procedure is entirely elective and arguably provides no direct benefit to the cat (This may not be strictly true, if an owner, beside him/herself coping with damage to house and home caused by this normal behavior, would give up, abandon or choose euthanasia for their cat). Second, because of the perpetuation of horror stories of pain, bleeding, infection, abnormal claw regrowth, anesthetic complications and other problems purportedly related to the procedure, some people, including some veterinarians, have decided it is inhumane and decry it. I contend any surgery, properly done with attention to appropriate pain relief, is both humane and ethical.

Onychectomy actually involves the amputation of the last bone of each toe. It is from this bone that the germinal cells of the claw or nailbed arise. This nailbed must be removed entirely, or abnormal regrowth of claw tissue will occur and that should be considered improper technique. Onychectomy is most often performed on the front feet alone, as most property damage is due to these claws.

In the past, the procedure was accomplished in one of two ways. Always under general anesthesia, a sterilized guillotine type nail trimmer may be used to remove the major portion of the third bone of the toe, hopefully including 100% of the nailbed tissue. As I have implied, a major risk and complication possible with this method is the inadvertent failure to remove all the nailbed tissue. Another method is the "blade" method, in which a specialized, curved scalpel blade is used to cleanly dissect and remove the third bone of each toe along with the associated nailbed. This method completely avoids the risk of "regrowth", but is more technically demanding, which can increase the surgical and therefore anesthetic time involved.

With the recent advent and availability of the carbon dioxide surgical LASER, many of the problems of both methods are eliminated or lessened. The LASER method achieves the benefits of both older methods, speed and accuracy, with several additional benefits.

Prior methods required the use of a tourniquet to avoid significant bleeding during surgery. As you may know, tourniquets cut off circulation and pose risks of their own. Furthermore, the tourniquet, no matter how carefully applied can damage the skin and tissues over which it is applied, with hair loss and even muscle or nerve injury possible. With the LASER, no tourniquet is required, as no bleeding occurs.

LASER is an acronym for *"light amplification by the stimulated emission of radiation"* and most simply is intensification of light waves by electronic and optical means. As the LASER beam contacts tissue it vaporizes the water inside cells, essentially making them disappear. Because the beam can be extremely narrowly focused, you come very close to creating a single cell thick incision, minimizing trauma to tissue you intend to preserve. All blood vessels smaller than 1mm are sealed by the beam and the resultant lack of bleeding means the surgeons vision is unobstructed, speeding the procedure considerably, all with no tourniquet required. Furthermore, the minimal trauma results in little to no swelling of the toes, with less pain and quicker healing the result. Nerve endings are similarly sealed with the result that recovering cats seem to not notice their feet have had surgery. This is especially important in adult or heavier cats, the feet of which bear more weight.

These benefits result in a reduced risk of infection, and a quick return to normal activity. In the past, cats were hospitalized longer than for other elective surgeries mainly because of the pain, prolonged risk of bleeding and infection. This has not changed with the LASER, but for different reasons. The LASER operated cats are so comfortable after surgery that return to normal activity is immediate. We can't forget they still have surgical incisions on each toe, which can open up or become infected with early trauma. Therefore, cats are held for several days after surgery, primarily to keep them confined on soft bedding and minimize their activity.

All cats undergoing onychectomy still receive pain relief medication prior to surgery, after surgery and orally for several days thereafter. I do not believe cats after onychectomy have pain, but the somewhat controversial nature of the procedure and the lack of a clear cut way to measure postoperative pain, means I err on the side of comfort for my patients and pain relief is made a priority. Our goal is to make this procedure humane and safe, and the use of pain medications is therefore not optional.

Cats operated with either of the past methods were sometimes reported to have subtle signs of chronic pain days, weeks, months or even years after the surgery. These signs include shifting the weight on the front feet from side to side or occasional unexplained episodes of limping on one front leg or the other. I have not seen this with the LASER method in over 20 years of LASER onychectomy.

Of course, complications are still possible and you should be aware of this. Ask any podiatrist that operates on people's feet, just how high the complication rate for surgery of the feet actually is. The feet are not sterile and receive a lot of daily trauma through normal activity. Opening of incisions with spotting of blood and infection remain possibilities. With proper postoperative care and management however, these are infrequent and manageable. Anesthetic risk is minimal with healthy patients. We offer pre-anesthetic testing to ensure discovery of problems prior to anesthesia.

Surgery requires a physical examination within 30 days of planned surgery to ensure we know the patient and you have your questions answered. The physical examination can be done the day of surgery, but we discourage that, as you might be more comfortable meeting me in advance. in addition to the physical examination preanesthetic testing typically includes: electrocardiogram, blood clotting time analysis and blood chemistry panel. LASER onychectomy sometimes can be done at the same time as ovariohysterectomy ("spay" surgery).

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