

## Amputations

### Overview & indications:

Amputation can be of a toe/digit, a limb (fore limb, hind limb) or the tail. The most common indications for amputations are tumors, or extensive trauma with loss of function.

### Preoperative workup and other diagnostics:

Most of these cases are referred either as an emergency, or on a scheduled basis

A work up will include:

- General physical examination prior to anesthesia
- Preoperative laboratory work & imaging:
  - Mostly done prior to referral to the soft tissue surgery service
  - Extent of the workup depends on the history and clinical signs of your pet (trauma versus cancer). The workup will typically involve bloodwork & other lab analyses as well as imaging – starting with radiographs, and if needed additional imaging such as ultrasonography or CT.
    - Screening for metastases in lungs/abdomen/other tissues
    - Screening for other trauma in the chest, or elsewhere
  - Histopathology (in case of tumors)
  - Cultures (in case of wounds, ulcerations).

### Procedures:

Your pet will be fully anesthetized for these procedures and receive strong pain medication, that include opioids, a local block, and non steroidal anti inflammatory drugs (unless your pet has a contraindication for their use).

#### Toe amputation

Dogs and cats have 4 toes that touch the ground on each paw, of which the two in the middle bear the (most) weight. If one of the toes must be removed for disease (cancer, infection, trauma, ...) the entire toe will be removed. The gait of your pet might be different if one of the two middle toes is removed, but they will still able to use the leg appropriately. No gait change is expected if one of the non-weightbearing toes are removed.

#### Forelimb amputation

Most often a fore limb is removed if there is cancer somewhere along the leg, for example osteosarcoma, to remove the painful tumor. Typically the shoulder blade is removed with the leg.

#### Hindlimb amputation

Reasons to remove a hind leg can be cancer or trauma. Depending on which one, and the location, the amputation can be performed at the hip joint, or lower by leaving a part of the femur (thighbone) covered by all the thigh muscles.

#### Hemipelvectomy

In this procedure a part of the pelvis is removed with the leg. This is much less often done than a hindlimb amputation and typically only if there is cancer in your pet's leg.

### Tail amputation

The most common reason for a tail amputation is trauma, although it is possible to have cancerous lesions growing on the tail. Typically we try to leave a little tail stump, but the level of the surgery is dependent on the reason for the surgery and the location of the lesion.

### **Complications:**

- Anesthesia: as with any surgical procedure, there are always risks associated with general anesthesia. For otherwise healthy pets, these risks are usually low, but are considered increased in animals with systemic illness, older age, or who were involved in a recent major traumatic event.
  - Surgical site complications: these can range from a local dehiscence, to a fluid pocket (seroma) that will resolve on its own, or can be a local abscess that might need to be treated surgically.
  - In the case of limb amputation, your pet will need some time to readjust to walking on 3 legs. For some this may take longer than others.
- Your surgeon will discuss any potential complications in more detail during your pet's visit.

### **In hospital care:**

- Hospitalization and intravenous fluids are typically needed postoperatively to recover from surgery. Depending on the extent of surgery, duration of the disease/clinical signs, and other co-morbidities, this stay can be only the first night after surgery, or can be several days, until your pet is healthy enough to continue care at home.
- If a limb (whether fore or hind) was amputated, your pet will need some help getting up, and walking. During the initial recovery time, we will help your dog get up, and support them in their walks outside.

### **At home care:**

- Exercise restriction: leash walks/exercise restriction for the first 10-14 days after surgery to allow all the incisions to heal.
- Ideally your pet should not negotiate stairs, inclines or jump in/out of vehicles. We do understand that this is not always feasible. For your trip home, we can assist lifting your pet in the car if needed. If your pet does need to negotiate stairs at home, let them either do this at a slow pace, and support them with a sling (see below).
- Sling support: we will provide you with a sling that you can use to assist your pet while getting up, walking, and can also be used as a safety for if your pet slips or gets tired. It is placed under their belly and has two handles – which allow you to help support your pet's weight.
- Incision care: this includes keeping the incision dry and clean, as well as wearing an E-collar as long as the incision is still healing (first 10-14 days postoperatively).

**Prognosis:**

Ambulation: some pets may only take one or two days to adjust to walking on 3 legs, while others can take longer, and will need some additional support during their recovery at home.