

Informed Consent

Mandibular and Maxillary Fracture Repair

Your pet has been diagnosed with a fracture of the jaw. The goal of surgery is to realign the bone and place some method of fixation to hold it in place. Methods used vary depending on the fracture and the circumstances, but may include pins, wire, and/or a bone plate (or plates), or possibly some type of external fixator. These are called surgical implants, or simply “implants.” Generally the prognosis with surgery is much better than without, and the prognosis is generally good to excellent. However, the prognosis for some fracture types (complex fractures or fractures involving the temporomandibular joint -TMJ) may not have as good of a long term prognosis due to complexities of repair. You have elected surgical repair/fixation of your pet’s fracture and even though the prognosis is favorable with surgery, we need to make you aware of a few of the most common complications that could arise after this surgery. If you have any questions or concerns, please let us know.

The risks of complications after fracture repair is low, about 10% of cases. Here are some potential risks:

Infection- this is a risk with any surgery and is usually treatable oral antibiotic therapy and in some cases may require removal of the metal fixation

Implant failure- the fixation (plates, screws, pins, and/or wire) could loosen or break prior to bone healing. Generally implant failure requires revision surgery.

Implant loosening- generally due to excess motion or infection, and usually occurs with screws or pins, this complication may not require revision but usually requires removal of the loose component because it causes irritation.

Inadequate reduction - we try our best to put bone back together how it was before the fracture occurred. We cannot, however, always get it back together as “perfect” as it was, an Most bones will heal and function just fine, as long as they are close to where they need to be, but in some cases, revision may be needed, or in the case of joints, arthritis/degenerative joint disease could be a long term result if reduction is less than optimal.

Malocclusion- this is where the teeth do not interact with each other how they should. This can cause difficulty eating, abnormal tooth wear, plaque and tartar build up. Mild cases may not need any additional therapy, if additional therapy is recommended, it could include revision or tooth extraction.

Improper implant position- if the surgical implants are not optimally placed during surgery, they may need to be repositioned to help achieve the best outcome. This surgical revision is generally performed immediately during the initial surgical procedure.

Dysfunction or injury to the temporomandibular joint (TMJ)- this can occur secondary to the trauma or during healing of the fracture. Additional therapies may be needed.

Healing complications- there could be a delay in normal healing (delayed union) where the bone takes longer to heal than expected. There could be a situation where the bone isn't able to be put back together as it was and it might heal "wrong" (known as malunion). Malunion doesn't usually require revision but it could affect function or cause malocclusion (see above). If the bone simply doesn't heal, that is known as nonunion and is usually due to excess motion or infection, but usually requires revision.

There can be damage to soft tissues including muscle, nerves, and blood vessels, teeth/tooth roots.

Osteomyelitis- this is a rare but severe infection of the bone

Fractures and fracture biology is complex and dependent on the individual animals underlying systemic and bone health, the trauma that caused the fracture, and how that trauma affected the animal. The reality of this situation is that there may be issues and complications we cannot predict. In other words, this list is not exhaustive, but includes the most common issues we do see. Please let your surgeon or veterinary staff know if you have concerns.