

## **Temporary External Immobilization of Fractures in Small Animals**

A week doesn't go by without our practice seeing a trauma patient with a fracture/luxation/or major ligamentous injury that should have been immobilized prior to surgical intervention but wasn't.

### **Cases In Which Immobilization is Indicated:**

1. Any fracture below the distal humerus or distal femur in which a splint or bandage can extend proximal to the fracture site. Granted we will not be immobilizing the shoulder or hip joints in these cases but we are not talking about definitive treatment here. It is probably best not to try to immobilize fractures proximal to the distal 1/3 of the humerus or femur unless you have experience with application of spica splints.

All fractures of the radius/ulna and tibia/fibula. This also includes fractures of the tarsus and carpus as well as metacarpal and metatarsal bones.

2. Luxations/subluxations of the elbow, stifle, radial/carpal, carpal, carpal/metacarpal, tibial/tarsal, tarsal, and tarsal/metatarsal joints.

3. Ligamentous/tendinous injuries including calcaneal (Achilles), patellar, and triceps tendons. Flexor/extensor ligaments of the carpus and tarsus as well as collateral ligament injuries of the elbow, stifle, tarsus, and carpus.

The immobilization techniques can include Robert Jones Bandaging or when indicated coaptation splints can be formed utilizing mason-meta splints, "quick" splints, casting material, aluminum splint rods, and even tongue depressors in smaller patients.

### **Common Excuses Given for Not Immobilizing:**

"The patient is in a cage and not moving around much."

"I'd have to sedate the patient."

"Cost"

"The patient is having surgery tomorrow anyway."

No, no, no, and no!!

I have seen too many closed fractures present with bone protruding through the skin the following morning because the patient was not quite

quiet enough in the cage. Go ahead and sedate the patient if necessary – a little narcotic analgesia isn't such a bad thing anyway. The cost of applying a temporary bandage or splint is minimal compared to the cost of dealing with complications that could result from not applying one.

### **Reasons to Immobilize These Cases:**

1. Minimize patient pain by limiting movement of bone fragments or unstable joints.
2. Minimize further soft tissue damage by preventing sharp bone ends from lacerating nerves, tendons, muscles, etc.
3. Preventing closed fractures from becoming open fractures.
4. Compression will minimize bleeding into soft tissues and decrease laceration of blood vessels from fragment movement.
5. Compression will minimize tissue swelling rendering the surgical correction less difficult, allowing the fracture to be stabilized more rapidly and precisely and thereby possibly decreasing surgical complications.

Stephen H. Levine DVM, MS, ACVS  
Veterinary Surgical Specialists

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