

Case Study: Skye ? a very unlucky dog indeed!

Skye is a lovely working Border Collie, who was unfortunately run over by a JCB in January 2019.



She had a comminuted (bone broken into lots of pieces) fracture of her tibia (or shin bone). This was repaired with an external fixator to hold all the bones together while they healed.

The external fixator, seen in the pictures below, is made up of pins inserted into the intact parts of the bone above and below the fractured section. These are held together with metal clamps and connecting bars to create a solid cage around the limb, preventing movement of the broken pieces and so allowing the bone to heal.



Unfortunately a fracture like this takes a long time to heal, and despite amazing care from her owners, Skye had some complications. The first was to rupture her cruciate ligament on the same leg in April. This injury makes the knee joint unstable and does require fixation, but this could not be done until the fracture had healed and all the implants were removed. The second problem was due to the long healing process, the implants, which loosen over time, needing replacing with new pins, to create a smaller fixator in May as the fracture had not fully healed.

By June, all the implants were removed as the fracture had healed well.



The next step was to decide how to treat her cruciate rupture. There are several options for this injury:

- Conservative management ? using physiotherapy, hydrotherapy, gentle exercise and pain relief to allow the joint to scar and stabilise itself. This is generally only successful in a small amount of cases ? usually small dogs with only minimal instability.
- Lateral suture repair. A synthetic suture is placed in a figure of 8 around the stifle joint and through a hole drilled in the bone. This holds the joint stable until scarring and stabilisation can occur and eventually replaces the synthetic suture.
- Bone modifying surgery which can be done in several different ways. This provides what is termed a dynamic stabilisation of the joint and involves changing the shape of the bone to create stability.



With Skye, we had to wait until the existing holes where the pins were removed had healed fully before further surgery. While the holes were healing, Skye's owners worked hard, exercising her and taking her to hydrotherapy.

All this work meant that Skye had a greater muscle mass and a much stronger leg, although unfortunately her stifle was still unstable and she had to have surgery to replace the cruciate ligament in November last year.

After this final surgery she has come on literally in leaps and bounds.

She is back to her normal happy self, and is now working on the farm with her own flock of sheep... although still enjoying her dual status as working dog/house pet after moving into the house during her recovery! Check out the video below of her back in work !!