

Arthrodesis

Arthrodesis (joint fusion) is a salvage procedure that is performed to relieve pain and restore function to a joint that has irreversible damage. While it is technically possible to fuse most joints in the body, it is most commonly performed in the carpus (wrist joint) in the forelimb and in the tarsus (ankle joint) in the hindlimb.

Indications:

Most pets requiring carpal arthrodesis have injured the ligaments of the joint by jumping down from a height. Frequently this injury is bilateral. Other indications include severe arthritis, inflammatory joint disease that has destroyed the cartilage and supporting structures of the joint, and severe joint fractures.

Most pets requiring tarsal arthrodesis have severe ligament damage or fractures in the joint, often after being hit by a car or getting their leg caught in fence.

Arthrodesis can be performed using a plate and screws or with an external fixator.

Prognosis:

When an arthrodesis is performed in the carpus or tarsus, most animals return to normal, pain free function. Arthrodesis of joints higher in the limb generally result in a significant gait abnormality, although the pet is pain free. Depending on the reason for the arthrodesis and other problems the pet may have, some animals will do better with an amputation than an arthrodesis.



Dog with bilateral carpal hyperextension, causing the whole foot to lie flat on the ground during weight-bearing.



Post operative x-ray showing a bone plate and screws holding the joint in the normal standing angle. The arrows are pointing to the same spot on both pictures.