

FRACTURE REPAIR BY CIRCULAR EXTERNAL SKELETAL FIXATOR (ESF)

Circular external skeletal fixators (CESF), also known as the Ilizarov apparatus or ring fixators, are a series of 2-4 high strength aluminum rings connected with threaded rods, hinges or distraction motors. A CESF is secured to bone using 1-1.6mm highly tensioned wires, or positive threaded fixation pins. Small bone fragments, less than 1cm in length can be adequately stabilized with a CESF.



A CESF can be used to gradually move bone segments, and "grow bone", a process known as distraction osteogenesis. The system has allowed surgeons to successfully manage very complicated juvenile angular bone deformities and shortened bones. CESF is also used to manage fractures with extremely small (<1cm) bone fragments. Other potential uses include ligament reconstruction, carpal and tarsal fusions.

The Dallas Veterinary Surgical Center has become one of the leading referral centers in North America using the CESF and the Ilizarov method to manage difficult fractures and bone deformities. Please contact one of our surgeons if you have questions regarding a bone deformity or a difficult orthopedic case that may benefit from a CESF.