

Tarsal Cuff Considerations for Stifle Orthosis

What is a Tarsal Cuff?

A tarsal cuff is an articulating component that is added to the distal end of a modified stifle orthosis to gain additional suspension, purchase, or rotational support. The tarsal cuff can either be fabricated to present on the cranial or caudal aspects of the metatarsals. Considerations of design include patient confirmation, pathology, goals, lifestyle, donning & doffing, among other factors. The distal end of the tarsal cuff will terminate at the same level as the apex of the metatarsal heads. The most common indication of a tarsal cuff is to aid in suspension of the stifle orthosis in cases where the patients anatomy or terminal stance phase angle of the tibiotarsal joint does not allow for traditional suspension techniques. In addition, a tarsal cuff will also provide additional control of the limb in cases where a rotational instability of the stifle or tarsus are present.

What presentation may warrant a Tarsal Cuff?

There are several primary factors to assess to indicate if a tarsal cuff may be recommended for a specific patient.

1. Patient conformation

- a. A patient with a low groin or flank may require a tarsal cuff to aid in suspension as these structures push the device distally causing it to be positioned below the intended anatomical landmarks.
- b. A patient with a pendulous abdomen may require a tarsal cuff to aid in suspension for the same reasons mentioned above.
- c. A patient who stand or presents with a hyperextended tarsus during terminal stance phase.
- d. A patient with a calcaneus or with malleoli that are not prominent.
- e. A patient whose malleoli present excessively distal to the elevation of the calcaneus.
- f. A patient who has a short femur, and muscular thigh causing the same distal migration as mention above.

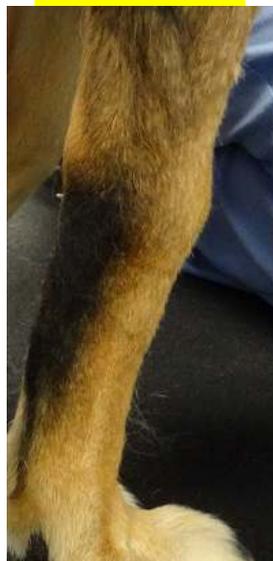
2. Specific instabilities

- a. A diagnosis of luxating patella causing tibial rotation about the transverse plane.
- b. A MCL or LCL instability to aid in control over frontal and transverse plane rotation.
- c. Diagnosis of a tibial crest avulsion or patellar tendon avulsion (+/- a paw component)

Malleoli position distal to calc



Tarsal Hyperextension



Short femur/ pendulous abdomen

