Angular Limb Deformities in Foals
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Some of the common bone abnormalities of young foals are referred to as angular limb deformities. Instead of having straight legs, a foal is born with an angle or crook in its legs, similar to a person who is bowlegged. This angular limb deformity can be more than a slightly objectionable physical feature; this could have very severe consequences to an animal that has evolved as a creature of flight.

As the foals rapidly grow and bear weight on their legs the angle can worsen rapidly if appropriate actions aren't taken. Fortunately, there is much that can be done to help correct this medical problem. There are several ways to manage the disease as well as several surgical remedies in case those do not prove successful.

Allison Stewart, DVM, MS, Dipl. ACVS, an equine surgeon at the University of Illinois Veterinary Teaching Hospital in Urbana, Ill., urges clients to, "Get x-rays taken." An x-ray will reveal the degree and location of an angulation. This, along with the foal's age, can help determine the next course of action.

Most often management will solve the problem. Foals should be kept in relatively small enclosures. Exercise will put asymmetrical pressure on their legs often making the deformity worse. Stewart warns that if incomplete bone formation coexists with a crooked leg, it could lead to the horse actually crushing one of the small bones in its joints causing permanent lameness.

Foot trimmings are necessary every two to three weeks because the limb deformity will lead to uneven wearing of their hooves. Keeping the hoof surface even and flat will help resolve the disease. Corrective shoeing or even casts can help to stabilize a leg depending on the cause for the angled leg. Foals must be kept from becoming overweight. Extra weight means that there is more pressure on the limbs and, again, problems will be exacerbated. This may mean that the foal must be weaned early or the mother's food must be restricted in order to restrict milk production.

Surgery is an option if other treatments do not seem to be working. However, the surgeries available depend upon active bone growth after the surgery. Foals with angular deformities of the fetlocks, or ankle joints, must be no more than six weeks old before the surgery is performed. Likewise, foals with angular problems of the carpus, or knees, should be no more than six months old before the surgery is performed. The earlier the surgery is performed the better the results are expected to be.

There are two types of surgery available. Hemi circumferential periosteal elevation is a mouthful of a surgery in which the surgeon will strip the covering of the bone with a t-shaped incision. The incision is placed on the side of the bone that is wanted to grow. Therefore, a candidate for this surgery must still be growing.
Temporary transphyseal bridging is a surgery that uses screws and wire to bridge—and therefore stop growth—on the more rapidly growing side of the bone. This surgery always works if the growth plate in the bone is still functional. A horse's fetlock, or ankle joint, is functionally closed at six to eight weeks. Surgery after that time is superfluous. The knee joint stops growing at six to eight months. Stewart warns, "It is critical to know that owners have a limited time window to correct this deformity."

It is difficult to know if management alone or surgery is necessary to correct an angular limb deformity. Management is cheaper, but may not work. Surgery will work but has a stringent time window. As medicine grows more options are available to horse owners. At the very least, educating yourself to the options will help you make a good decision for you and your horse.

For more information about angular limb deformities, consult your local veterinarian.

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