Angular and Flexural Limb Deformities in Foals

When a foal is born and first stands to nurse from its mother, their legs can appear to be pointing in all directions. If the foal is not able to stand within the first couple of hours after birth it is a good idea to call the vet to come and have a look at the foal.

Over the next few days you should start to see their legs strengthen up and straighten out some more. Sometimes their legs will be angled away from straight; this can be inwards and outwards (angular) or forwards and backwards (flexural). In some cases these are present from birth (congenital) and others become obvious over time (acquired). As yet the reason why some foals come out with “bent legs” is still not fully understood, unless the foal is premature. This can lead to incomplete ossification (forming) of joints such as the knees and hock and is easily diagnosed on X-rays.

Angular Limb Deformities

Common site of deviation are the knee, fetlock and hock. If the leg is turned out, this is known as valgus. If turned in, this is known as varus. If the foal’s legs do not appear to be straightened out within the first 2 weeks or are as severe as those in the photo, please call the practice. Early intervention is key to avoiding more invasive methods of correction.

Some deformities become more apparent when the foal grows. This can be the result of disproportionate growth at the level of the physis (growth plate). Most treatment is aimed at correcting this unequal growth. This can be achieved by altering the weight loading through the joint via corrective shoeing. Shockwaving an aspect of the joint causes temporary growth retardation allowing more even growth across the physis. In the past periosteal stripping has been advocated as a method of growth acceleration, but is less common these days. In severe cases surgery can be needed to correct the deformity; screws and wire are used to form a bridge over the growth plate to retard growth on one side.

Flexural Limb Deformities

These can present as hyperflexion or hyperextension. They can occur at different levels in both hind and forelimbs as well as occurring in combination involving multiple joints.
Hyperflexion has been traditionally referred to as “contracted tendon” which is slightly misleading as the deformity results from a mismatch between the length of the muscles, tendons and bone. In extreme cases they can be so severe they are unable to straighten resulting in malpresentation at birth. Others are much less steep and can be managed with rest and medication. In some cases specialist shoeing can help prevent the foal from developing a club foot or even getting “Ballerina Syndrome”. If the foal is greatly over at the knee sometimes the forelimbs are placed in splints or casts for periods of time throughout the day. When foals fail to respond to these more conservative treatments, surgical intervention is warranted. This can involve cutting some of the tendons on the hind aspect of the legs.

Hyperextension, usually seen as laxity, can often correct themselves, but the foal is likely to need extended rest on soft bedding to avoid damage to areas such as the fetlock. Sometimes special heel extension shoes are placed on the foals.