

Dystocia or obstetric difficulties is relatively uncommon in the mare, only occurring in 1-4% of all foalings (miniature and draft breeds this tends to be slightly higher). Dystocia can be caused by either maternal or foetal problems. The majority of cases that are seen are caused by **foetal problems**, mainly malpresentation, abnormal position or posture of the foal. Maternal-foetal size discrepancies are uncommon in the horse as foetal size is a measure of *uterine capacity* and this is closely related to the pelvic size, especially in multiparous mares. Foetal growth and size at birth is therefore mainly determined by the size of the mare and thus size of stallion does not have a direct influence on the size of the foal before and at birth. The only time that we may encounter problems with the mare's pelvic size is if she has had a previous injury to the pelvis e.g. a fractured pubis and has had callus formation which may narrow the pelvic canal or if she is bred under the age of 2 as she will not have finished growing herself. Other maternal factors that may cause dystocia are previous severe (3<sup>rd</sup> degree) perineal laceration causing subsequent scarring, tumours in the vaginal canal or vulva, ruptured pre-pubic tendon, large ventral hernia, uterine torsion and expulsion deficiency e.g. in a weak tired mare.



Dystocia in the mare is always a true emergency. This is because within an hour of onset of second stage labour, placental separation from the lining of the uterus will begin and thus lead to progressive asphyxia of the foal. A general rule that is followed is that interference should be carried out if no progress is being made after 15 minutes of onset of second stage labour. A clinical examination would be carried out in this instance and a decision made as to whether to deliver the foal by forced extraction or to wait another 15 minutes and then re-assess. It must be pointed out that no more than three people at any one time should be used to pull out a foal and mechanical calving aids and machinery should **never** be used in the mare

When we are discussing positions of foals in the pelvic canal we use 3 terms to describe their position, **the 3 p's**- Presentation, Position and Posture. Presentation describes the relationship of the long axis of the foal's body to the mare's body. Normally this is head first with the foal's spine on the same axis as the mare's i.e. longitudinal. Abnormal presentations would include backwards presentations and sideways presentations. Position is used to describe the relationship of the foal's back bone to the mare's pelvis. Normally the foals back bone lays against the inside of the sacrum i.e. the top part of the pelvis. Abnormalities can include the backbone touching the pubic surface of the pelvis (the lower surface) i.e. the foal is upside down or deviations of the head and neck either to the side or downwards. Posture describes the relationship of the foal's limbs in relationship to itself. Normally the head should be extended resting on the knees of both front legs which are also ex-

tended, one usually being slightly in front of the other. This is commonly referred to as the “diving position”. Abnormalities include flexed legs, head back, dog sitter (flexed hips) and foot nape (one or both front legs displaced above the head).

There are 3 methods of resolving a dystocia:

1. Manipulation of foal into a normal position and then forcibly delivered
2. Foetotomy- foal is cut into smaller pieces to facilitate easier removal
3. Caesarean section

Which method is used depends on the status of the foal i.e. if it's dead or alive, the actual cause of the dystocia and occasionally finances will come in to play.

Generally most foals can be delivered with some manipulation and forcible extraction. However if manipulation is not going to be successful e.g. bilateral shoulder flexion then depending on the status of the foal and finances foetotomy or caesarean section can be carried out.

Foetotomy is generally considered if the foal is dead and can be removed using only 2 or 3 cuts. However there must be adequate facilities and equipment to ensure this procedure is done as safely as possible. If the mare is not amenable to foetotomy or there are inadequate facilities to perform the procedure adequately then a caesarean section will be required.



Caesarean section is usually the best method to deliver a live foal that cannot be repositioned by manipulation, if there are congenital deformities such as joint fusion or if the mare has anatomical abnormalities. However this procedure must be carried out promptly to enable the optimal result- a live foal and live mare. The procedure must be carried out in a hospital environment as it requires general anaesthesia to carry out the surgery and also 24 hour care post-operatively for the mare and the foal.

In summary 96-99% of foalings go like clock work without any requirements for intervention. When dystocia does occur, the main aim is to remove the foal as quickly and efficiently as possible, using the optimal method based on clinical presentation of the case.