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# dealing with growth problems



**CONTRACTED TENDONS**



**EPIPHYSITIS (KNEE)**



**KNOCK KNEES**



**EPIPHYSITIS (FETLOCK)**

Growth problems in youngstock are often described under the umbrella term of Developmental Orthopaedic Diseases (DODs). This term encompasses a number of disorders in young horses that interfere with normal bone development and includes epiphysitis, congenital or acquired flexor limb deformities, osteochondrosis and "wobblers". These conditions can affect bone strength and quality and, ultimately, soundness in the adult horse.

## WHAT CAUSES THEM?

- ➔ **Genetics** - can determine factors, such as speed of growth and ability to absorb nutrients
- ➔ **Conformation** - poor leg conformation, for example, may predispose to certain problems
- ➔ **Trauma/management** - excessive concussion from too much activity (eg running round the field on hard ground), carrying too much weight, or limited activity could increase risk
- ➔ **Nutrition** - correct nutrition for the mare during pregnancy is key as well as avoiding excessive or inadequate feeding for the growing horse

As a general rule, problems evident in all four limbs are likely to be related to nutrition or genetics, whilst those appearing in a pair of limbs could be caused by management or conformation. If only one leg is affected, it is likely to be related to conformation or trauma.

## WHO'S AT RISK?

- ▶▶ Fast growing horses – it is thought that bone is not as dense under high-speed growth conditions in comparison to bone which matures more slowly
- ▶▶ Youngsters on a high calorie diet eg. consuming large volumes of their mother's milk, consuming particularly calorific milk, or eating lots of rich pasture. High calorie/energy intake has been shown to increase growth rates and therefore the risk of DODs, especially when the supply of other nutrients is insufficient to support the rate of growth.
- ▶▶ Horses on high starch diets – these create a high glycaemic response



affecting the dynamics between glucose and insulin metabolism. Large amounts of starch in growing horses' rations, especially if meal sizes are excessive, have been shown to correlate with a higher risk of growth problems.

» Horses who have compensatory growth spurts because they have not been receiving an even plane of nutrition during growth. This can happen when they have had insufficient nutrients, especially energy, followed by excess, for example, youngsters who have been stabled, with restricted feed and exercise in the winter, then turned out on to lush spring grass.



## HOW CAN I REDUCE THE RISK OF DODS?

- 1. Limit high energy diets which may fuel faster than optimal growth rates and cause overweight youngsters, placing additional trauma on young limbs.**
  - For suckling foals, consider weaning. Discuss with your vet, if necessary.
  - Control access to rich grazing and provide alternative, lower calorie forage sources, in order to maintain fibre intake
- 2. Control starch intake - choose cubes over mixes or combine Stud Balancer with highly digestible fibre sources, like Fibre-Beet or Speedi-Beet**
  - Keep meal sizes small.
- 3. Focus on micronutrients - these must be balanced with the energy density of the diet. It is thought that a high energy diet accompanied by an inadequate supply of minerals often results in developmental problems.**
  - Stud Balancer provides essential nutrients, including trace minerals, without the calories associated with a traditional mix or cube.
- 4. Monitor growth rates - Use a weighbridge or weightape to plot a youngster's rate of growth on a chart. This will enable changes to be spotted and the diet to be altered accordingly.**
  - Periods of rapid growth are associated with skeletal abnormalities
  - Although it is unlikely that a completely smooth growth pattern will be achieved, avoiding significant growth rate changes is preferable. An increase in dietary energy will increase the rate of growth up to the genetic potential. Dietary energy provided in excess of this requirement will either be stored as fat or could potentially contribute to fizzy or excitable behaviour. This emphasises the importance of feeding according to current weight, condition and age, which will need to be reassessed on an ongoing basis
  - Dietary restriction over a longer period (eg. more than a year) may limit attainment of genetic potential for mature size. This is due to the fact that the horse's ability for compensatory growth is no longer sufficient by this time.

## NOT JUST FEED?

It is thought unlikely that one factor alone is sufficient to cause DODs so, although changes in nutrition can increase or decrease the risk of DOD, it can never prevent the occurrence completely. Genetics, environment and management all play an important part.

## The Bottom Line

Provide lower starch feeds to growing horses that may be at risk of growth problems. This means feeding a higher fibre diet, while fat/oil eg. Baileys Outshine high oil supplement, can be used as an additional calorie source, if required.

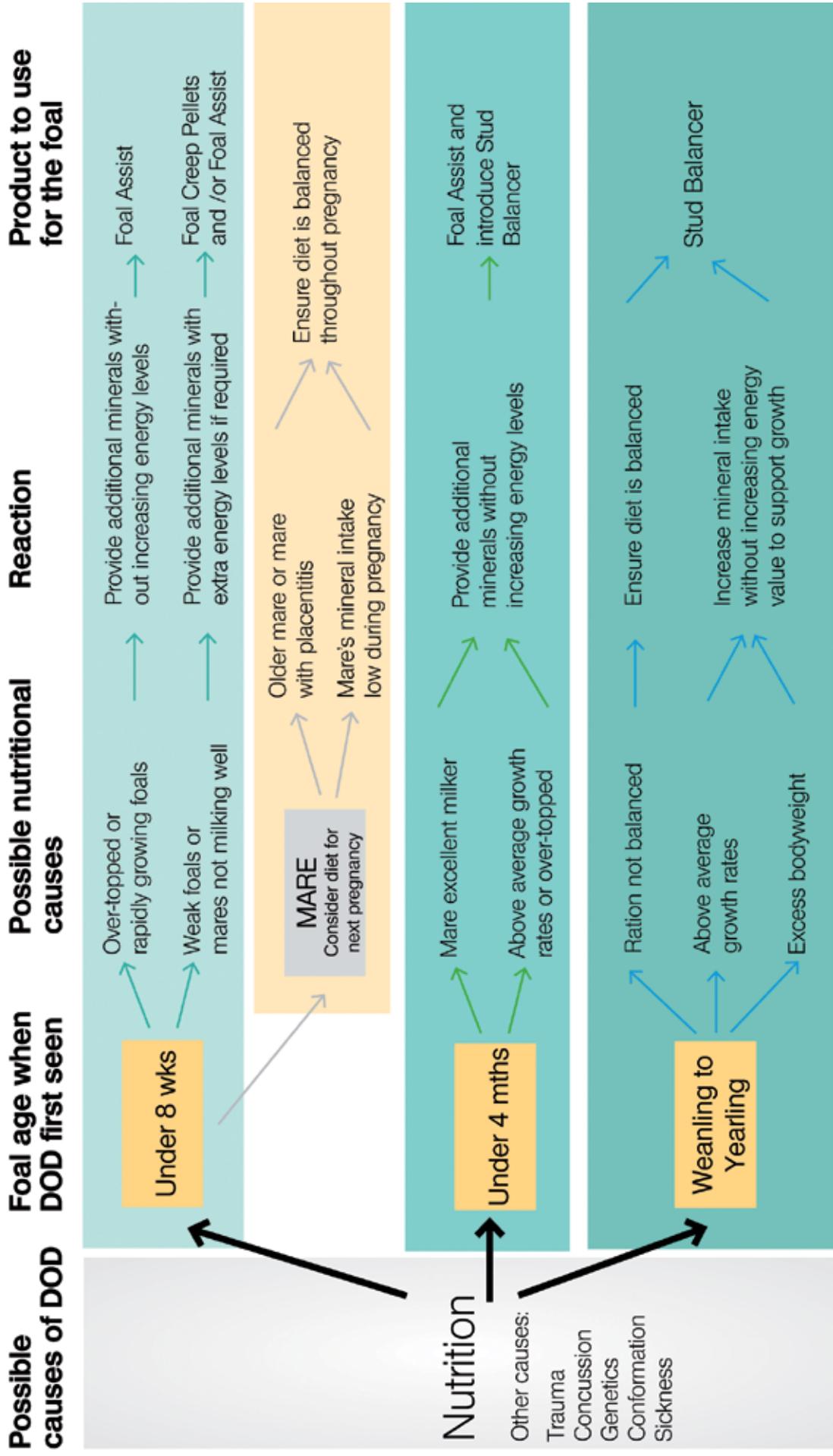
Do not allow youngsters to carry excess condition. Regular body condition scoring, using a visual and hands-on assessment method, will help monitor levels of body fat. Likewise, plotting bodyweight (using a weightape or weighbridge) on a growth monitoring chart will keep an eye on growth rates.

Keep nutrients balanced, providing quality protein for muscle and top line along with sufficient minerals - ensure you are feeding either the recommended amount of a stud-specific cube or mix or 'topping up' nutrient levels with Stud Balancer, or feeding the recommended amounts of Stud Balancer alone.

Consider the diet of the broodmare for future foals – feed correctly from conception.

For further information or a practical and individual diet for your horse, contact one of Baileys Nutrition team on:  
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# DOD problem solving chart



If you would like to talk to one of our Nutrition team directly regarding which is the most appropriate product to use, call 01371 850 247 (option 2) or e-mail [nutrition@baileyshorsefeeds.co.uk](mailto:nutrition@baileyshorsefeeds.co.uk)