



Feeding the foal or young horse can be tricky and will depend on individual circumstances, compliance of the mare and quality of the mare's milk. Nutrient requirements of young horses are extremely high, compared to those of adult horses, owing to their very fast growth rate. Protein requirements are high as a result of the rapid growth of muscle, connective tissue and other body parts. Calcium and phosphorus requirements are also high owing to rapidly growing bones. Carbohydrates are in high demand owing to the foal's high metabolic rate and energy requirements. These nutrient sources are all present in the mare's milk.

When do newborn foals start suckling?

The newborn foal relies entirely on its mother's milk for nutrient and fluid requirements and will start to suckle between 30 minutes and 2 hours after birth. Newborn foals will require 500 ml of milk every 3-4 hours up to 12 hours after birth and will suck approximately 100 times every 24 hours for the first week of their life. This frequency falls to 35 times every 24 hours by the tenth week; the foal will ingest between 21 and 25% of its bodyweight each day. The first milk (colostrum) taken by the foal is essential for acquisition of passive immunity (the transfer of antibodies for temporary immunity) - this is obtained from the immunoglobulins in the colostrum, which are present for 1 week after birth, but are in highest concentration during the first few hours and are absorbed only during the first 24 hours. No other solid food should be given during this time, as it would interfere with the absorption of these immunoglobulins.

When do foals start eating roughage and concentrates?

Foals can start eating roughage or concentrates from about 10-21 days old, although some do start at just 3 days old; this can be introduced in the first week or when the foal shows an interest. Introducing roughage or concentrates at an early stage ensures maturation of the gastrointestinal tract so that abnormal fermentation does not occur when the foal is weaned. A correctly balanced diet is essential for proper bone and muscle growth, a healthy coat, skin and feet as well as soundness, correct energy, protein, mineral and vitamin status.

Depending on individual circumstances, including size, age, breed, pasture conditions and, most of all, the mare's milk production, concentrates should consist of dried skimmed milk with a gradual change to a young stock diet when the foal reaches 8-12 weeks of age. At this stage foals require a very high quality and easily digestible feed; it should contain approximately 20% protein and 4-5 times the mineral levels of adult feed. The type of diet the foal requires will depend on the individual, ie growth rate and body condition. A healthy 50 kg foal will require approximately 31 MJ, DE (7500 calories) per day. In the majority of cases, where grazing is good and the mare's milk is in good supply, no additional feed will be required until the foal is 2-3 months old, ie 2 months prior to weaning.

When can foals be weaned?

Weaning usually takes place between 4 and 7 months of age. At this stage the foal is no longer reliant on a milk based diet, therefore the foal can be separated from its mother and can be given a diet consisting of just roughage and concentrates.

What are normal foal growth rates?

Following birth, the most rapid period of growth is up to 3 months of age, which is when the foal's nutritional requirements are greatest. By 1 year, foals achieve 60% mature weight, 90% mature height and 95% of mature bone mass.

An average horse with an eventual mature weight of 450 kg will gain 100 kg between 3 and 6 months at the average rate of 1 kg per day. Nutrition, health and weather conditions affect how much growth occurs on a daily basis. The growth rate declines from 6 months and the next 100 kg of bodyweight are gained between 6 and 12 months and the next 75 kg of bodyweight are gained between 12 and 18 months.

Larger breed horses tend to mature later and may have increased nutritional requirements until they reach maturity.

What are the feed requirements for a young horse?

Feeding the young horse



A daily ration of concentrate for a young horse would equal 0.75-1% of the horse's bodyweight per day, as pasture and hay/haylage are unlikely to provide sufficient nutrients to meet the requirements of growing young stock. Over the first winter young stock should be fed 1.25-1.5 kg of concentrates per 100 kg of bodyweight, containing 16% protein, together with vitamins and minerals to supplement winter pasture. If stabled, free access to good quality hay (about 0.5-1.5 kg per 100 kg of bodyweight) should be fed in addition to concentrates.

Good doers, however, may require more concentrated nutrient sources designed to keep energy intake low to prevent excessive weight gain, ie to provide the necessary protein, vitamins and minerals, without excessive energy.

If growth is abnormal, common abnormalities that might be seen include:

- Enlarged fetlock joints (physitis)
- Contracted tendons
- Angular deformities of leg joints

Where these conditions are mild, restrict growth rate by reducing feed to the lactating mare, and reducing concentrate feed allowance to the foal and carry out gentle daily exercise. Where the condition is severe, the foal may require boxing with a reduction in food intake and the assistance of the farrier and veterinary surgeon.

Young horses and ponies, that have reached maturity and are in work, can be fed forage and concentrates suitable for an adult horse.

What are the energy requirements of a young horse?

The daily requirements for a young Thoroughbred to mature at 500 kg bodyweight are the following:

- Foal (from birth) - 31.5 MJ, DE
- Weanling (6 months old) - 72 MJ, DE
- Yearling (12 months old) - 80 MJ, DE
- Long yearling (18 months old) not in training - 82 MJ, DE

What else do I need to know?

- Ensure pastures are free from holes, rocks and wire that could cause damage to an exercising foal.
- Ensure that only a clean water supply is available at all times.
- Ensure that fences are adequate and suitable for foals and mares.
- Ensure that poisonous weeds are absent from roughage and pasture.
- Ensure foals are wormed regularly (every 4 weeks) from 4-6 weeks of age until they reach 6 months of age as foals have a low resistance to worms and can quickly acquire massive worm burdens.

If you want any other information on health issues concerning your horse please contact Hampden Veterinary Hospital on 01296 423666 and we will be happy to advise you.