



## Importance of Colostrum

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It is essential that the foal receive an adequate supply of colostrum, the mare's first milk, which is extremely rich in antibodies. It provides the foal with passive immunity to help prevent disease until its own immune system kicks in.

### **Do I need to collect colostrum from a mare and save it for future use? How long can I keep it?**

Colostrum or "first milk" is the thick, yellow secretion from the mammary gland that's present immediately after birth. Colostrum and its protective antibodies are present in the mare's milk for only the first day after foaling; these maternal antibodies are necessary to protect the foal against infectious diseases. The best-quality colostrum is produced in the first eight hours post-foaling. Ideally, the foal will receive at least two pints of mare's milk within the first 12 hours of its life.

However, a foal might not receive the colostrum it needs if:

- The foal is too weak to stand and nurse unassisted. Colostrum might need to be milked from the mare and fed via tube to the foal.
- A foal is capable of nursing, but does not receive sufficient colostrum because the mare had premature lactation, leaking the colostrum before the foal was born.
- Testing of the colostrum reveals an inadequate immunoglobulin content.

There are other reasons to collect colostrum. If a mare is at risk of dying, colostrum should be collected. Additionally, one might opt to collect colostrum for storage in a colostrum bank as

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"insurance" for mares that deliver a foal, but don't have sufficient quantity or quality of colostrum.

Many large breeding farms collect and store colostrum for these reasons.

Because colostrum is only available for the first 12-24 hours after foaling, it's crucial to work within that timeframe. After that, normal milk production takes over and the amount of immunoglobulin is diluted by the normal milk secretion. Gather colostrum by milking the secretion from the teats. It is preferable to collect colostrum shortly after the healthy foal has nursed for the first time, because over time the concentration of immunoglobulins will be diluted by increasing milk production. After the foal has nursed, approximately one pint can be obtained safely from the mare without risking any colostrum deficiency to her foal. Only eight to 10 ounces of colostrum should be collected--one time--from each mare per foaling so as not to deprive the foal.

Colostrum is collected, it can be stored in any freezer for up to a year (when frozen at -4° Fahrenheit/-20° Celsius). Frozen immunoglobins are stable for much longer, but the overall quality of the colostrum deteriorates over time. Just prior to use, thaw stored colostrum at room temperature or in warm water. **Do not thaw by microwave** as essential antibodies can be destroyed.

If colostrum is stored in a bank where it might be administered to foals from other mares, it is essential to have the colostrum tested prior to freezing for the presence of specific antibodies to equine red blood cell types Aa and Qa.

These are the most common blood types that result in a colostrum cross-match abnormality known as neonatal isoerythrolysis (NI or jaundiced foal). In that situation, the anti-Aa or anti-Qa antibodies in the colostrum bind to those specific blood types on the foal's red blood cells, thus causing

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the removal of those antibody-coated red blood cells from the foal's blood circulation and resulting in anemia and jaundice. Testing can be done by several veterinary laboratories around the country, at some of the larger referral practices, and in the veterinary schools.

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