

IgG: WHAT IS IT, AND WHY IS IT IMPORTANT? by Dr. Laura Harris

Foals are born without competent immune systems. They have not received immunities across the placenta like humans and they are not yet able to produce sufficient gamma globulins (IgG) of their own to have protection from bacteria, viruses and fungi in the environment. They get IgG in the mare's first milk (colostrum). If they don't receive adequate amounts of IgG from the colostrum they are not protected from disease for the first two months of life.

When a foal does not receive adequate IgG from the mare's milk the situation is referred to as Failure of Passive Transfer (FPT). Failure of Passive Transfer can occur in several ways: 1) The mare does not produce colostrum.

- 2) The mare does not produce colostrum with high levels of IgG.
- 3) The mare leaks colostrum before foaling and does not have IgG rich first milk available at the time of foaling.
- 4) The foal does not nurse effectively and fails to ingest enough colostrum in the first 24 hours after birth. (The intestinal wall loses the ability to effectively absorb the large IgG molecules after the first

24 hours

after birth.)

Failure of Passive Transfer is life threatening unless it is diagnosed quickly and treated effectively. Every foal should be blood tested on the second or third day after birth to determine IgG status. Foals that have a low IgG level at that time can be transfused with IgG rich equine plasma and go on to live normal lives. Both the blood test and the transfusion procedure are readily available and affordable.