

IMMUNOGLOBULINS OF COLOSTRUM

Sow colostrum contains approximately eleven times more immunoglobulins (IgA, IgG, and IgM) than mature milk.

The immature intestinal structure of newborn piglets allows the **absorption** of immunoglobulins during the first 24-36 hours after birth. The intestine subsequently matures and no longer allows the absorption of these macromolecules. This phenomenon is called **intestinal closure**.

Thus, IgG immunoglobulins ingested through colostrum are absorbed as intact molecules before intestinal closure. After farrowing, the IgG content in colostrum rapidly decreases to lower levels, while the IgA content only slightly decreases. Ingested **IgA**, both in colostrum and milk, is important for the protection of the gastrointestinal tract at the local level.

	Early colostrum	Mature milk
IgG (total) (mg/ml)	61.8	1.6
IgA (mg/ml)	11.3	4.1
IgM (mg/ml)	3.8	1.5

Theil P.K. Lauridsen, Quesnel H. Neonatal piglets survival: impact of sow nutrition around parturition on fetal glycogen deposition and production and composition of colostrum and transient milk. *Animal*. 8(2014), pp. 1021-1030

