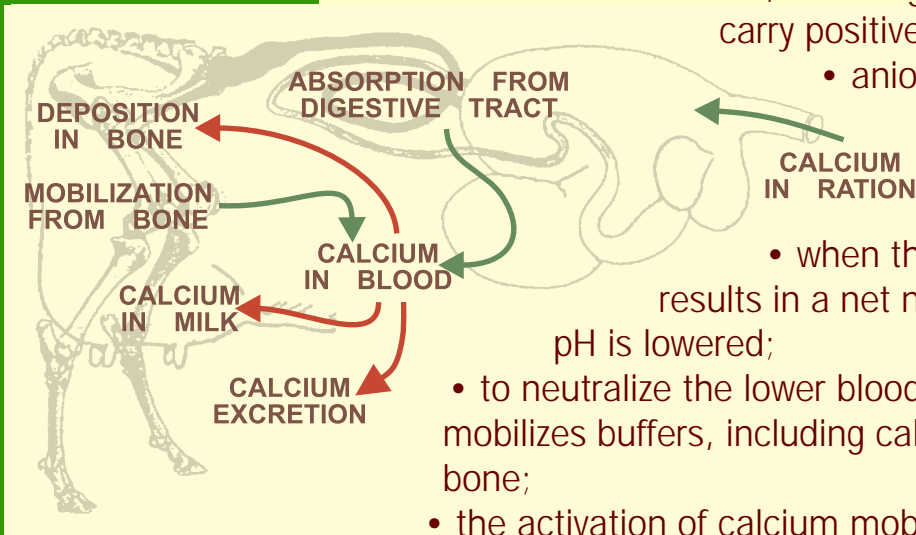


# Dietary Cation-Anion Balance

The concept of dietary cation-anion balance (DCAB) is applied to transition rations in an attempt to prevent hypocalcemia which may lead to milk fever. Here's how it works :

- cations, including sodium ( $\text{Na}^+$ ) and potassium ( $\text{K}^+$ ), carry positive charges and increase blood pH;
- anions, including chlorine ( $\text{Cl}^-$ ) and sulphur ( $\text{S}^{2-}$ ), carry negative charges and have an acidifying (pH lowering) effect in the blood;
- when the balance between cations and anions results in a net negative charge (negative DCAB), blood pH is lowered;

- to neutralize the lower blood pH caused by negative DCAB, the cow mobilizes buffers, including calcium phosphate and bicarbonate from bone;
- the activation of calcium mobilization from bone increases the availability of calcium to satisfy the rapid increase in demand as milk production begins.



for more information:

[Dietary Cation-Anion Balance](#), *Alberta Dairy Management*

A new option for DCAD feeding, *Country Guide Dairy Update*