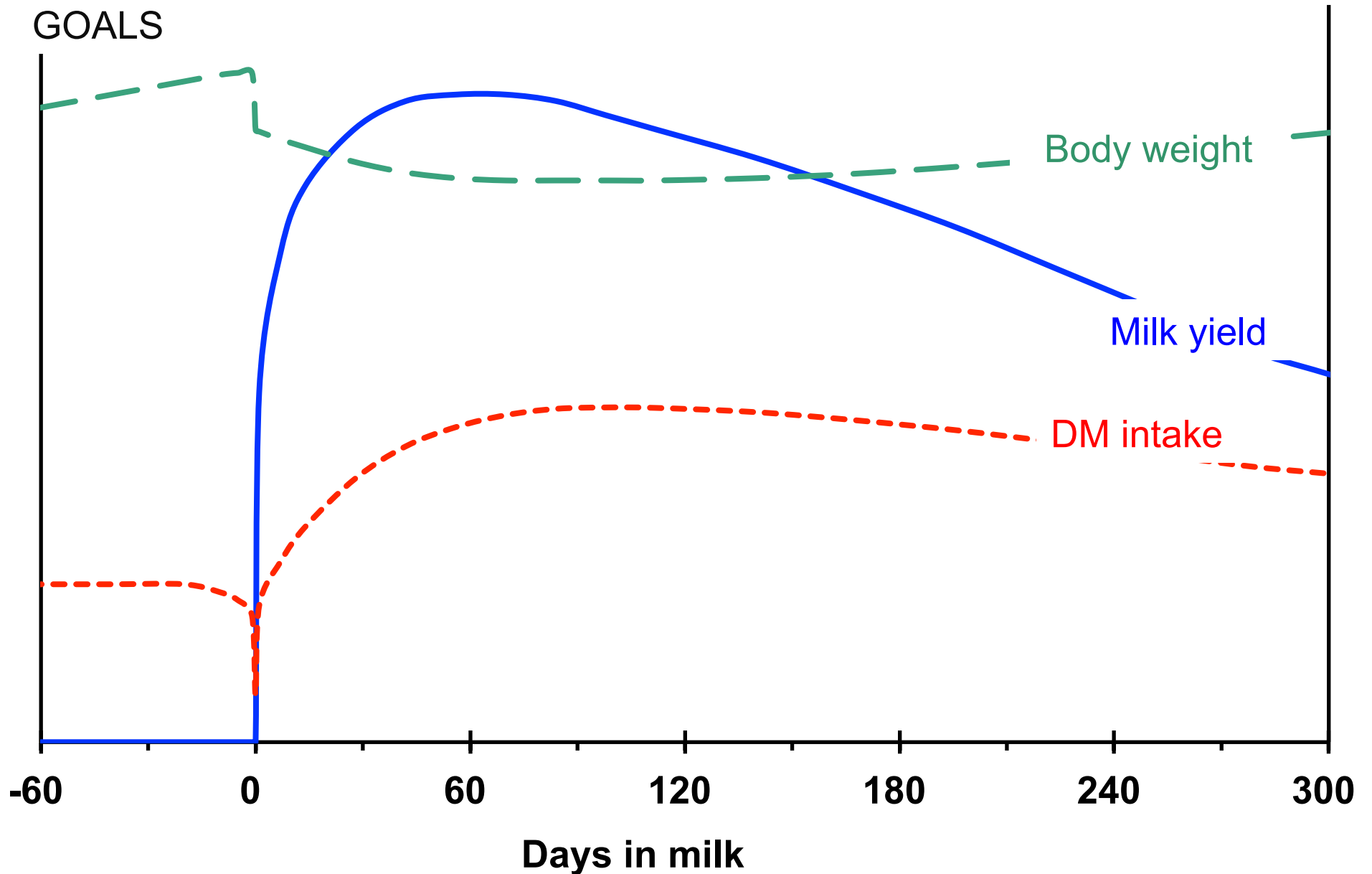


Balancing diets through the lactation

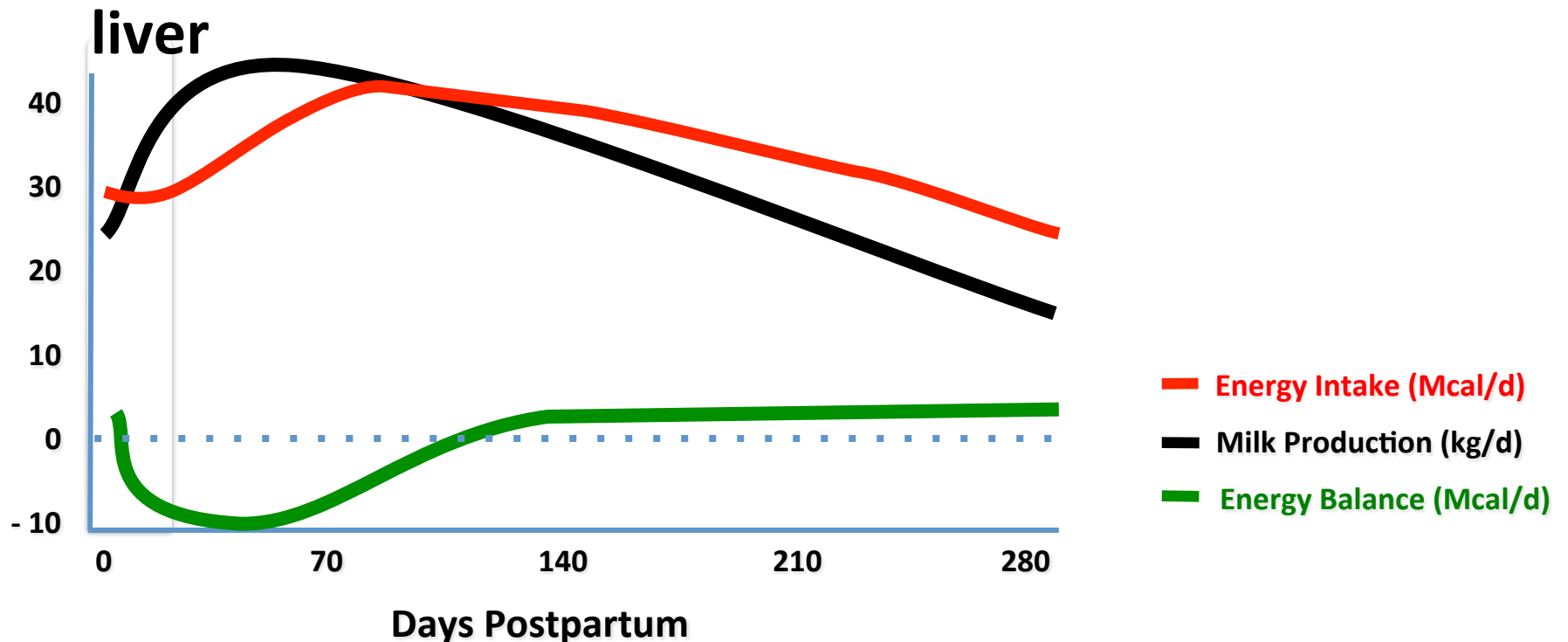


Optimal feeding through a lactation cycle



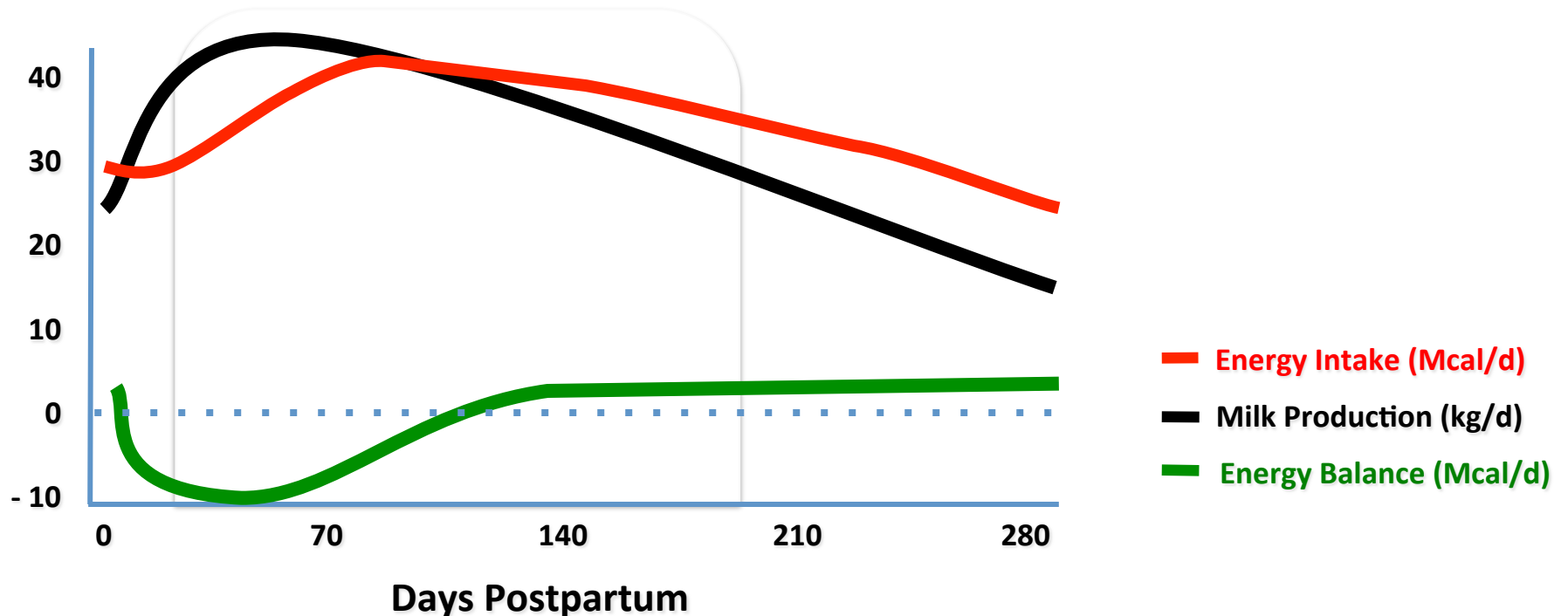
Postpartum period

- low plasma glucose and insulin concentrations, insulin resistant,
- mobilizing fat: elevated NEFA and ketones
- risk of DAs, acidosis, ketosis, fatty liver
- Feed intake likely controlled by oxidation of fat in the liver



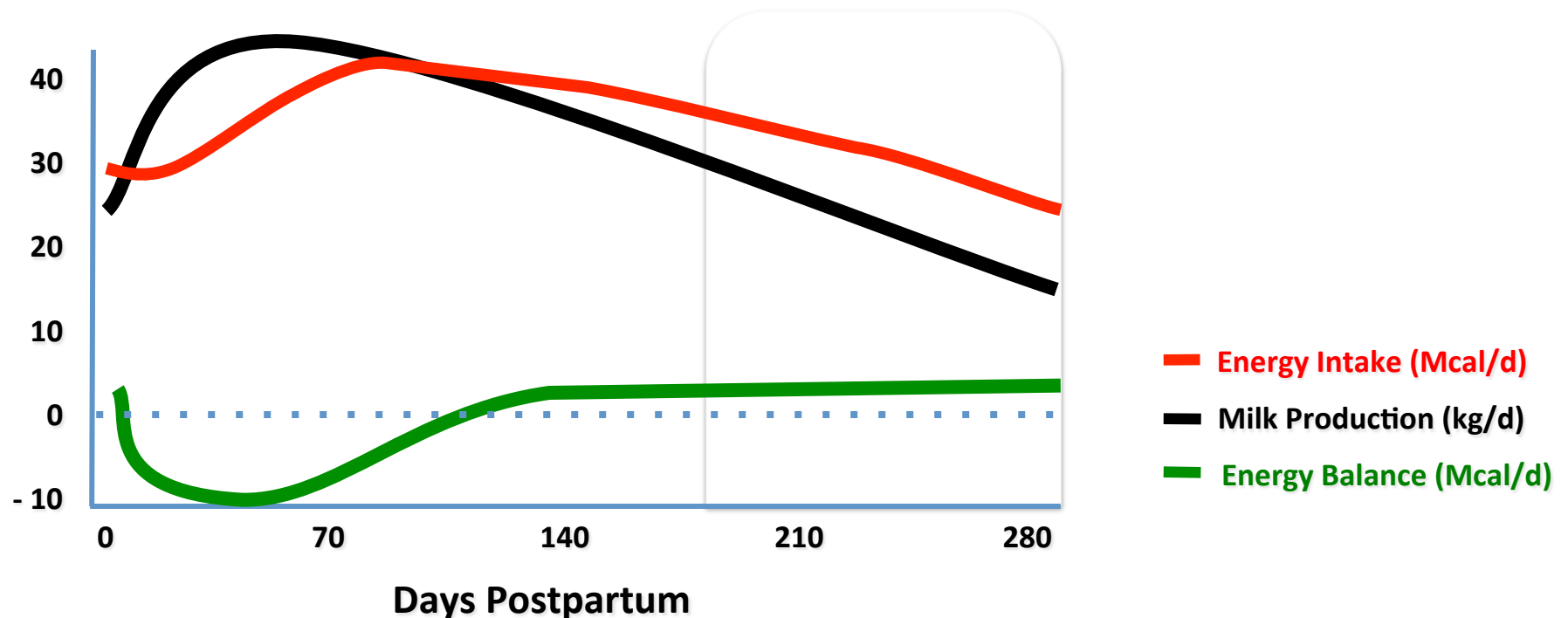
Early to mid-lactation cows:

- High glucose demand, low NEFA, ketones
- Need glucose precursors
- Rumen fill limits feed intake
- Feed higher starch, lower forage NDF diets



Late lactation cows: maintenance diets

- Plasma glucose, insulin and insulin sensitivity increased
- Increased risk of MFD
- Partitioning energy to body reserves
- Intake limited more by fermentation acids, less by gut fill
- Don't need as much starch



Optimal feeding through a lactation cycle

