The Effect of Cortisol on Wool Production

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Actions of cortisol

- breaks down muscle to release amino acids for essential organs
- repartitions nutrients from muscle
- compromises immune response
- breaks down connective tissue
- induces lipolysis
Effect of cortisol on wool production

- depresses wool growth at high concentrations
- may stimulate wool growth at low doses
- analogues inhibit wool growth
  - precursors to biological defleecing
- acts directly on the follicle
  - intradermal injections and cortisol in vitro lead to induction of catagen

- Plasma concentrations must be elevated for a number of days to affect wool growth
Effect of cortisol on staple strength

Days on Cortisol

0  3  12

Days on Cortisol

SS  FD @ POB  Shed Fibres

Source: Adams and Schlink (1998)