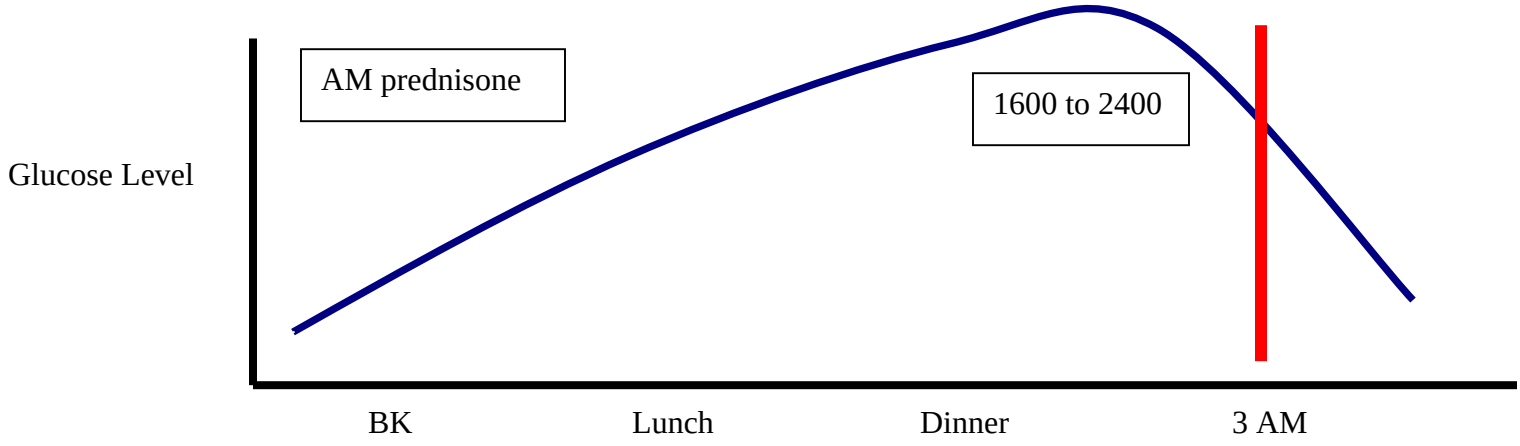
Blood Glucose and Steroid Therapy

In the fasted state, cortisol stimulates several processes that collectively serve to increase and maintain normal concentrations of glucose in blood. These effects include:

- Stimulation of gluconeogenesis, particularly in the liver: This pathway results in the synthesis of glucose from non-hexose substrates such as amino acids and lipids.
- Enhancing the expression of enzymes involved in gluconeogenesis
- Mobilization of amino acids from extrahepatic tissues: These serve as substrates for gluconeogenesis.
- Inhibition of glucose uptake in muscle and adipose tissue: A mechanism to conserve glucose.
- Stimulation of fat breakdown in adipose tissue: The fatty acids released by lipolysis are used for production of energy in tissues like muscle, and the released glycerol provide another substrate for gluconeogenesis



Insulin R: 15% in AM, 20% noon and 25% Dinner
Insulin NPH: 20% in AM and 20% bedtime
Goal: 100 to 200 at 6 to 8 PM with high dose steroids
Or give extra dose of NPH 2 hours before steroid dose

Ali Olyaei PharmD, 2004