13 (830)

The effects of protein starvation and feeding on the amino-acid content of the tissues.

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Starvation for periods up to twelve days does not reduce the amino-acid content of the tissues of dogs, nor does high protein feeding (500 grams of beef daily added to the regular diet for 1 to 7 days) increase it. The results indicate that:

1. Nitrogen retained as the result of high protein feeding is not in the form of stored digestion products, but rather as body protein.

2. The free amino-acids of the tissues can originate not only from the food, but also from autolysing tissues, as the latter are the only apparent source from which the amino-acid supply can be maintained during starvation.

14 (831)

Hibernation and the pituitary body.

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A train of symptoms, coupled with retardation of tissue metabolism and with inactivity of the reproductive glands, not only accompanies experimental states of hypophysial deficiency but is equally characteristic of clinical states of hypopituitarism. The more notable of these symptoms are a lowering of body temperature, slowing of pulse and respiration, fall in blood pressure, and somnolence, together with a tendency, in the chronic cases, toward an unusual deposition of fat.

These symptoms are comparable to those accompanying the state of hibernation.