

**NEUR0010 Exam 3 Review**  
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You have a lot of multiple choice questions to practice from, but do you truly understand the concepts behind what you're studying? Test yourself here, for starters.

Some of these questions are more food-for-thought (**FFT**) questions than test questions, but they do have reasonable and unreasonable answers.

1. Would the injection of a leptin receptor blocker into the brain of a mouse likely cause an increase or a decrease in weight? How might this be explained by the actions of leptin in the arcuate nucleus of the hypothalamus?
2. **FFT:** Corticotropin-releasing hormone (CRH) is not the only hormone that stimulates the release of ACTH during the stress response. It turns out that vasopressin (or anti-diuretic hormone, ADH) can act in synergy with CRH to further stimulate release of ACTH from the anterior pituitary gland. Recalling the roles of these two hormones, why might it make sense for ADH to act synergistically with CRH during the stress response?
3. You learned that the primary somatosensory cortex can reorganize itself after the amputation of a digit in a monkey. There is also another method to measure plasticity in which you sew two adjacent fingers of the monkey's hand together. (This is called syndactyly, and I know it sounds cruel.) Suppose you sew digits 2 and 3 of the monkey's hand together, and the monkey uses them as "one finger" for an extended period of time. What do you think will happen to the representation of digits 2 and 3 in primary somatosensory cortex?