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Anatomical Effects of Exercise Following Ischemic Insult in Young and Aged C57BL/6 Mice

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Poster Presentation P7

**ANATOMICAL EFFECTS OF EXERCISE FOLLOWING
ISCHEMIC INSULT IN YOUNG AND AGED C57BL/6 MICE**

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Stroke is a leading cause of long-term disability. Current rehabilitative strategies are expensive and often fail to yield complete recovery. Focused training of the impaired limb improves outcome in rodents, but these strategies require intensive training that is not feasible for humans. Because aerobic exercise has been found to induce beneficial changes in the brain, it is a promising rehabilitative strategy following stroke. Exercise may require less intensity and is less expensive than traditional therapy. The current study investigated the effect of post-stroke exercise on young and aged mice. Mice were trained on a skilled reaching task before receiving a focal ischemic stroke. Mice were subdivided into three different groups for rehabilitative training: traditional rehabilitation, aerobic exercise, and control procedures. Both young and aged mice benefited from aerobic exercise after stroke. Aerobic exercise may be an affordable and effective alternative to traditional rehabilitative strategies. Underlying anatomical mechanisms are currently being analyzed.