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Changes in stroke volume in rat pups during adaptation to various regimens of motor activity

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Abstract

Experiments on rat pups showed that regular exercise for 4 weeks starting from day 14 after birth considerably increased stroke volume. Similar dynamics of stroke volume was observed in subsequent period of restraint locomotion. Experimental hypokinesia starting from day 14 after birth significantly limited the age-dependent increase in SV. However, subsequent exercise training promoted the increase in stroke volume in these rats. In trained rats the regulation of stroke volume during hypokinesia remained unchanged, while in restrained rats subsequent training was associated with considerable reduction of sympathetic regulation of stroke volume.

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Keywords

Blockade, Different regimens of physical activity, Regulatory mechanisms, Stroke volume