

LaRoche DP, Roy SJ, Knight CA and Dickie JL. Elderly women have blunted response to resistance training despite reduced antagonist coactivation. *Med Sci Sports Exerc.* 2008; 40:1660-1668.

This study characterized the age-related decline in reaction time, muscular strength, power, and nervous activation and compared the response of inactive young and old women (65+ years) to muscle power training. The major findings of the study suggest that while older women are capable of making similar gains in strength as young, they are less capable of making gains in muscle power (force/time). This is especially troubling as muscle power is more closely related to fall risk and the ability to perform activities of daily living. This is likely caused by a selective atrophy of fast twitch muscle fibers that occurs with aging and inactivity. Individuals should therefore attempt to maintain muscle strength and power throughout adulthood instead of trying to develop it late in life. A secondary finding is that older women had greater levels of coactivation of antagonist muscle groups (inappropriately contracting a muscle that opposes the desired movement) that was decreased following training (a positive response).