

## IL-6 Levels during BFR Exercise in Older Adults

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**Abstract:** One method to reduce the risk of falls and fall-related hospitalizations among older adults is to increase strength and muscular health. Heavy-weight resistance training is the standard exercise to build skeletal muscle and is typically undesirable for older adults. Blood flow restriction exercise is a low-intensity alternative to heavy weightlifting. Interleukin-6 (IL-6) has been shown in previous studies to be produced in skeletal muscles and released at higher levels during exercise. The purpose of the study is to determine if blood flow restriction (BFR) exercise increases IL-6 production in individuals in a shorter time than exercise without BFR.

Seven adults 55 years and older performed 30-minute pedaling sessions per week over 12 weeks. The participants were placed into two groups: aerobic exercise with BFR or aerobic exercise without BFR (control group). Each participant maintained an RPE score between 12-13 during the 30 minutes.

The findings of the study showed that IL-6 levels were significantly increased in the BFR participants as compared to the participants without BFR. Therefore, BFR may be a central mechanism to increase white blood cell recruitment for muscle growth without causing damage to the muscle.

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