

Progressive resistance strength training improves physical function in older adults

Clinical question	How effective is progressive resistance strength training (PRT) for improving physical function in older adults?
Bottom line	Older people who exercise their muscles against a force or resistance become stronger. They also improve their performance of simple activities, such as walking, climbing steps, or standing up from a chair more quickly. Moreover, strength training exercises also improved older people's physical abilities, including more complex daily activities, such as bathing or preparing a meal. Progressive resistance strength training also reduced pain in people with osteoarthritis. There was insufficient evidence to comment on the risks of PRT or long term effects.
Caveat	The studies in this review were generally of poor methodological quality, as most did not use design features that are known to increase internal validity, such as concealed randomisation, intention-to-treat analysis, blinded outcome assessors, or attention control groups. In many studies adverse effects were poorly monitored. None the less, serious adverse events appeared to be rare. Additionally, there is no information regarding how long these effects can be maintained because the majority of the studies did not follow up the effect after the training had ended.
Context	Progressive resistance strength training is a type of exercise where participants exercise their muscles against some type of resistance that is progressively increased as their strength improves. The exercise is usually conducted 2 to 3 times a week at moderate to high intensity, by using exercise machines, free weights or elastic bands.
Cochrane Systematic Review	Liu C-J, Latham NK. Progressive resistance strength training for improving physical function in older adults. Cochrane Reviews. 2009, Issue 3. Article No. CD002759. DOI: 10.1002/14651858. CD002759.pub2. This review contains 121 trials, involving 6700 participants.
PEARLS No. 196, September 2009, written by Brian R McAvoy	

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