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## Functional relevance of eccentric strength maintenance with age during walking

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1. Knee extensor eccentric muscle strength is a weaker predictor of walking speed than concentric muscle strength, because eccentric strength is relatively maintained with age. - this thesis
2. With increasing age, changes in leg joint mechanics during walking occur first in the phase when muscles shorten and generate work followed by the phase when muscles lengthen and absorb energy. - this thesis
3. Unlike the distribution of positive work, old age does not seem to affect the distribution of negative work among ankle, knee, and hip joints during walking because the knee extensor muscles still operate well below maximum force capacity. - this thesis
4. Eccentric strength maintenance with age is important to preserve the joint moment strategy that controls knee flexion during the early stance phase of walking. - this thesis
5. Resistance training for older adults should emphasize concentric muscle action over isometric and eccentric muscle action to prolong mobility independence. - this thesis
6. Future studies should explore the feasibility of using common functional tasks to determine maximal muscle strength during the three types of muscle action. - this thesis
7. Take one step back to go two steps forward.
8. The process is more important than the product.