

Interventional strategies to combat muscle disuse atrophy

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Stellingen

Behorend bij het proefschrift

'Interventional strategies to combat muscle disuse atrophy'

1. Application of some level of physical activity is prerequisite for muscle mass preservation during muscle disuse. (*dit proefschrift*)
2. Effective interventional strategies to attenuate or prevent muscle atrophy during disuse should target postabsorptive as well as postprandial muscle protein synthesis. (*dit proefschrift*)
3. Protein supplementation during muscle disuse is of no additional value in older individuals consuming ample dietary protein ($> 1 \text{ g} \cdot \text{kg body weight}^{-1} \cdot \text{d}^{-1}$). (*dit proefschrift*)
4. The combined application of protein feeding and neuromuscular electrical stimulation (NMES) is currently the most promising intervention to prevent loss of muscle mass during disuse. (*dit proefschrift*)
5. The fact that it is challenging to measure muscle protein breakdown *in vivo* does not mean we should rule out its role in disuse atrophy.
6. Despite the positive association observed between muscle mass and clinical outcome parameters, there is no proof that every patient will benefit from interventions aiming to preserve muscle mass.
7. Muscle disuse cannot simply be seen as a model of 'accelerated ageing'.
8. A combined effort by experts from various fields, including scientists, technicians, health care professionals, and policy makers will be required to enable the successful application of NMES in clinical practice.
9. In physiology, as in all other sciences, no discovery is useless, no curiosity misplaced or too ambitious, and we may be certain that every advance achieved in the quest of pure knowledge will sooner or later play its part in the service of man.
(*Ernest Henry Starling*)
10. Life is short... running makes it seem longer. (*Baron Hansen*)
11. Ge leert zolang als ge lèèft. (*Opa Nol Poppeliers*)