



Figure S1 The experimental procedure. (A) Reflective markers of systemic model. (B) Virtual parachute procedure. (C) The AnyBody musculoskeletal model after muscle loading. CV, cervical vertebra; LAH, left anterior head; LFAL, left fibula apex of lateral malleolus; LFLE, left femur lateral epicondyle; LFME, left femur medial epicondyle; LFT, left femur greater trochanter; LHL, left lateral head of metacarpal; LHLE, left lateral epicondyle of humerus; LHM, left head of metacarpal; LHME, left medial epicondyle of humerus; LIAS, left anterior superior iliac spine; LIPS, left posterior superior iliac spine; LPH, left posterior head; LRSR, left radius-styloid process; LSAJ, left scapula-acromioclavicular joint; LSHO, left shoulder; LSK, left shank; LTAM, left tibia apex of medial malleolus; LTH, left thigh; LUSP, left ulna-styloid process; RAH, right anterior head; RFAL, right fibula apex of lateral malleolus; RFLE, right femur lateral epicondyle; RFME, right femur medial epicondyle; RFT, right femur greater trochanter; RHL, right lateral head of metacarpal; RHLE, right lateral epicondyle of humerus; RHM, right head of metacarpal; RHME, right medial epicondyle of humerus; RIAS, right anterior superior iliac spine; RIPS, right posterior superior iliac spine; RPH, right posterior head; RRSR, right radius-styloid process; RSAJ, right scapula-acromioclavicular joint; RSHO, right shoulder; RSK, right shank; RTAM, right tibia apex of medial malleolus; RTH, right thigh; RUSP, right ulna-styloid process; SJS, sternum incisura jugularis; SXS, sternum xiphoid process; TV, thoracic vertebra; UBAK, inferior angle of scapula.



Video S1 The participant parachuted from 120 cm and landed on the force plate in accordance with a standard protocol.