

Supplementary Appendix 1. Details relating to the participants position of the feet while performing the rowing exercise, and how the exercise was adapted to those individuals with a lack of trunk stability using adaptive equipment.

While sitting in their chair using their own cushion, seven participants used the footrest of their chair with their lower legs touching the padded support of the adapt2row unit. For one participant (P6) using a foot drop orthosis, her feet were elevated and attached to the feet support of the ergometer as this configuration avoided friction between the adapt2row unit and her foot drop shin.

For the three participants (P1, P3, P4) with a high thoracic (T4) and cervical injury (C6-7) we adapted the exercise using a supportive vest (Figure 1B) or non-elastic chest belt (Figure 1C). The vest or the belt were then connected to a rope that was tied to a parallel frame thereby pulling the participant back in the chair. As a further initiative for P1 and P3, the trunk vest was used in combination with a neoprene Velcro strap placed around the trunk to further secure them to the chair, thereby providing a more solid base of support for their upper-body movement. One participant (P7) with an injury at T10 was equipped only with the Velcro strap, as this strap was sufficient to maintain balance during the recovery phase (Figure 1D).

The decision of who would benefit from the additional security (neoprene belt or supportive vest), were judged based on the knowledge about the participants' level of injury and degree of injury as well as the feedback provided by the participants during the first few sessions. For example, if a participant initially equipped with a neoprene belt around the torso, felt he would benefit from additional support in order to feel sufficient stability to resist the pull-back force from the handle, the session was paused, and the participant was equipped with a vest.

Supplementary Appendix 2. The adaptive gloves (tetra gloves) (to the left) or wrist straps with a hook (to the right) that some participants with a lack of grip strength used.



Supplementary Appendix 3. Illustration of the solution for one participant with tenodesis grasp where the ergometer handle was tied to the participants' elbow using a rope, thereby allowing the participant to pull without involvement of any musculature distal to the elbow.

