

The Effects of **Flywheel Training** on **Heart Health**

Banks et al. (2024)



A person is shown from the waist down, wearing a black athletic top and shorts, using a flywheel resistance training device. The device has a large red flywheel with the word 'PERFORMANCE' partially visible. The background is a blurred gym environment.

The 2024 study by Banks et al.

compared cardiovascular effects of traditional resistance training (TRT) vs. flywheel resistance training (FRT) using the Exerfly Platform.



31 young adults participated in a 10-week study. They were divided into three groups: TRT, FRT, and Control. Assessments were made before and after the training period.





Both training groups improved isometric leg extension

strength compared to baseline and relative to the control group (TRT: +11.4%; FRT: +9.4%), without a statistically significant difference between the two methods.



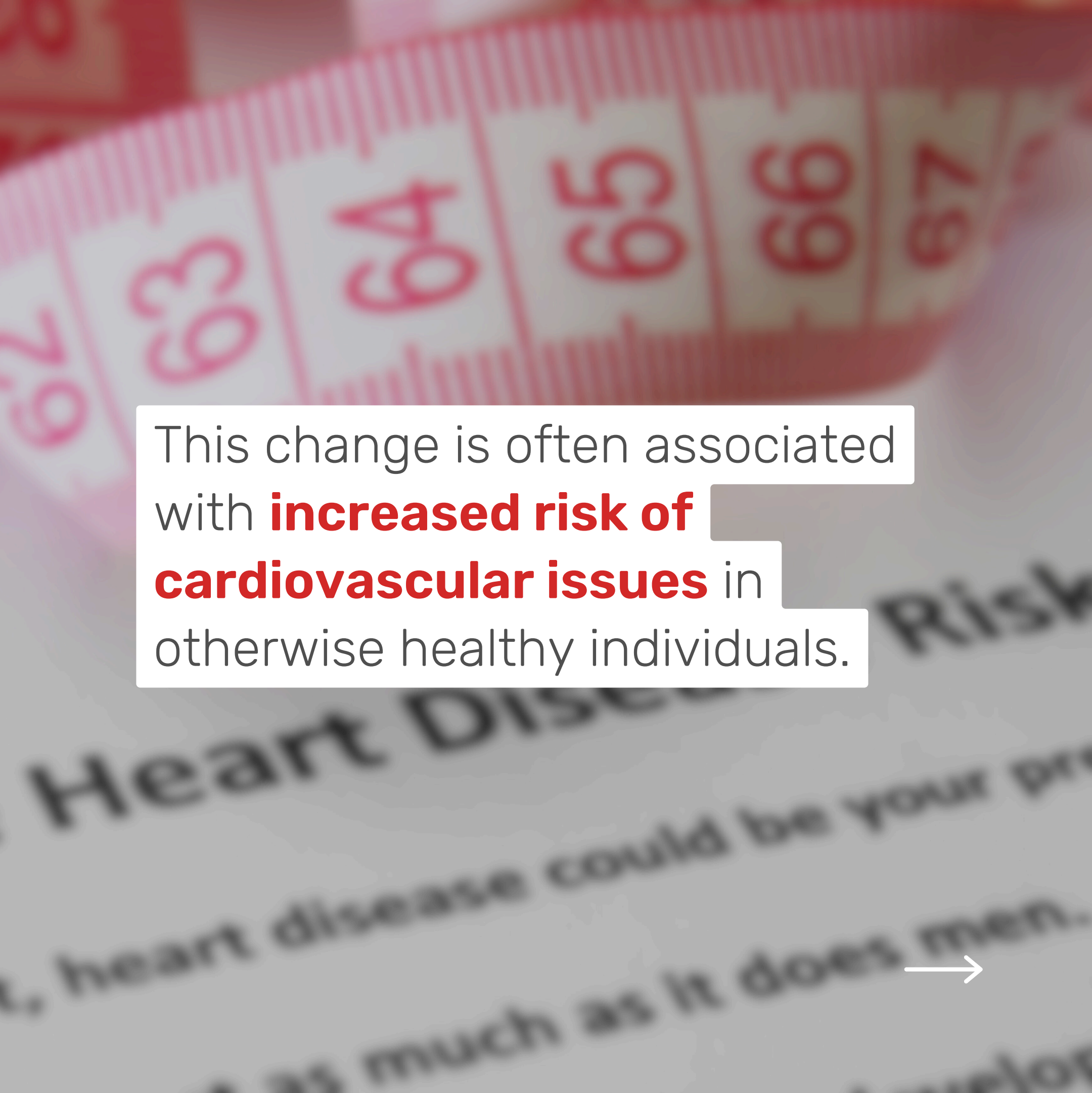
However, there were **significant differences** in the cardiovascular adaptations...

The TRT group had several significant changes which were indicative of negative adaptations to the cardiovascular system, which were **not observed when using the FRT instead.**



For example, TRT resulted in more exaggerated blood pressure responses to a submaximal isometric exercise protocol compared to FRT and the control group.





This change is often associated with **increased risk of cardiovascular issues** in otherwise healthy individuals.

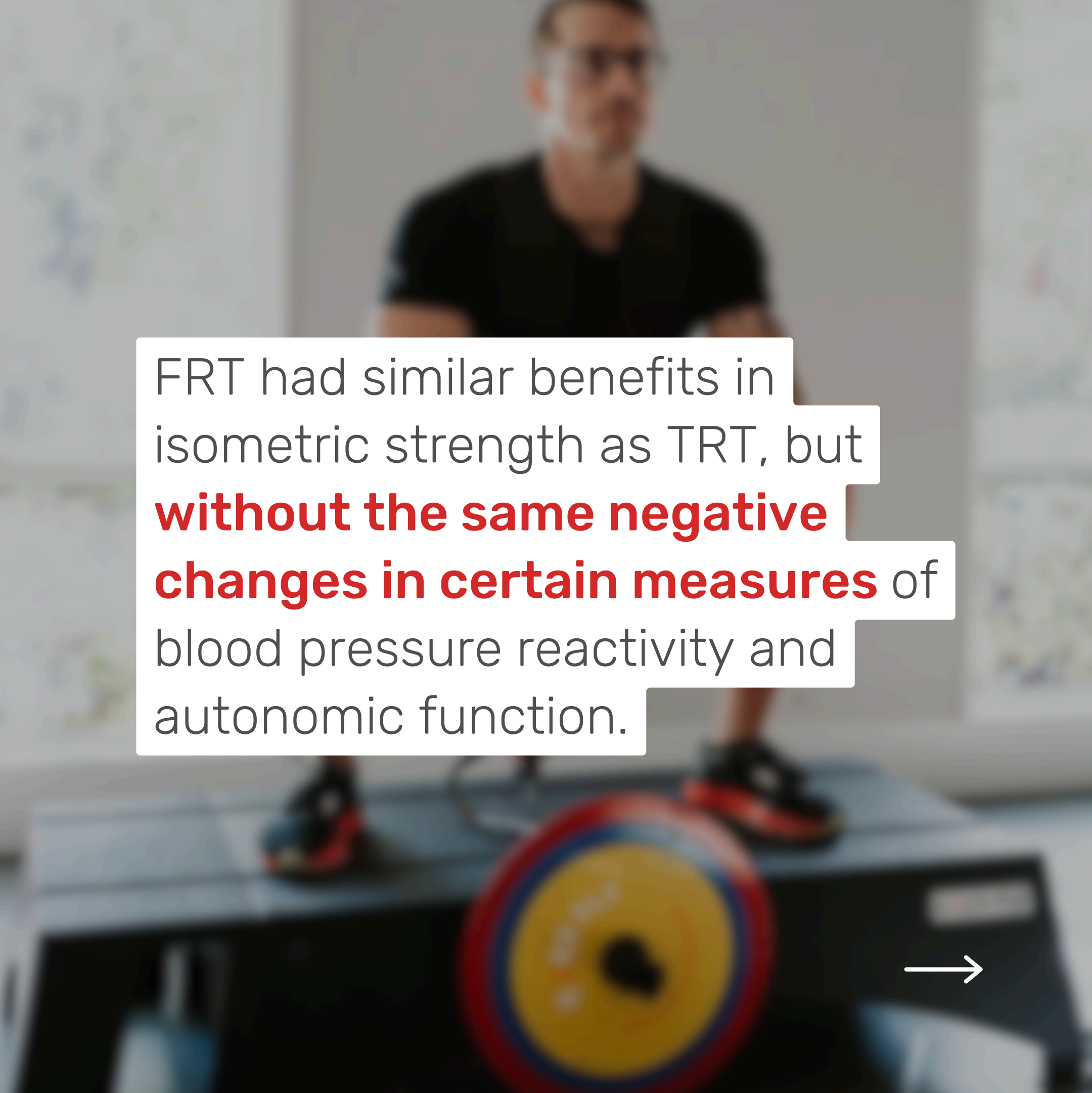
Heart Disease
heart disease could be your pr
as much as it does men.

Risk

→

This was accompanied by **negative changes** in cardiovagal reflex sensitivity and heart rate variability in the TRT group, which was suggestive of altered autonomic nervous system responses.



A man in a black t-shirt is standing in a gym. In the foreground, there is a yellow medicine ball with a red and blue ring. The background is slightly blurred, showing a whiteboard with some diagrams.

FRT had similar benefits in isometric strength as TRT, but **without the same negative changes in certain measures** of blood pressure reactivity and autonomic function.



More research is needed to determine the hemodynamic effects of FRT compared to other resistance training methods.

However, these results provide additional evidence that FRT can be a **safe and effective training method for a wide range of individuals**

