

High-intensity Interval Training; a quick way to improve your health

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WHAT IS HIIT?

HIIT involves:

- Repeated short bursts of exercise (6-60 s)
- Longer rest periods (30 s–4 mins)

WHAT IS SPECIAL ABOUT HIIT?

Time is a major barrier to being active.

Reduced time commitment from HIIT means that this barrier is (potentially) removed.

American College of Sports Medicine: intensity is "the most important exercise prescription variable".²

BUT...

HIIT only beneficial if the same (or better) health benefits associated with traditional exercise (long and slow) are seen.

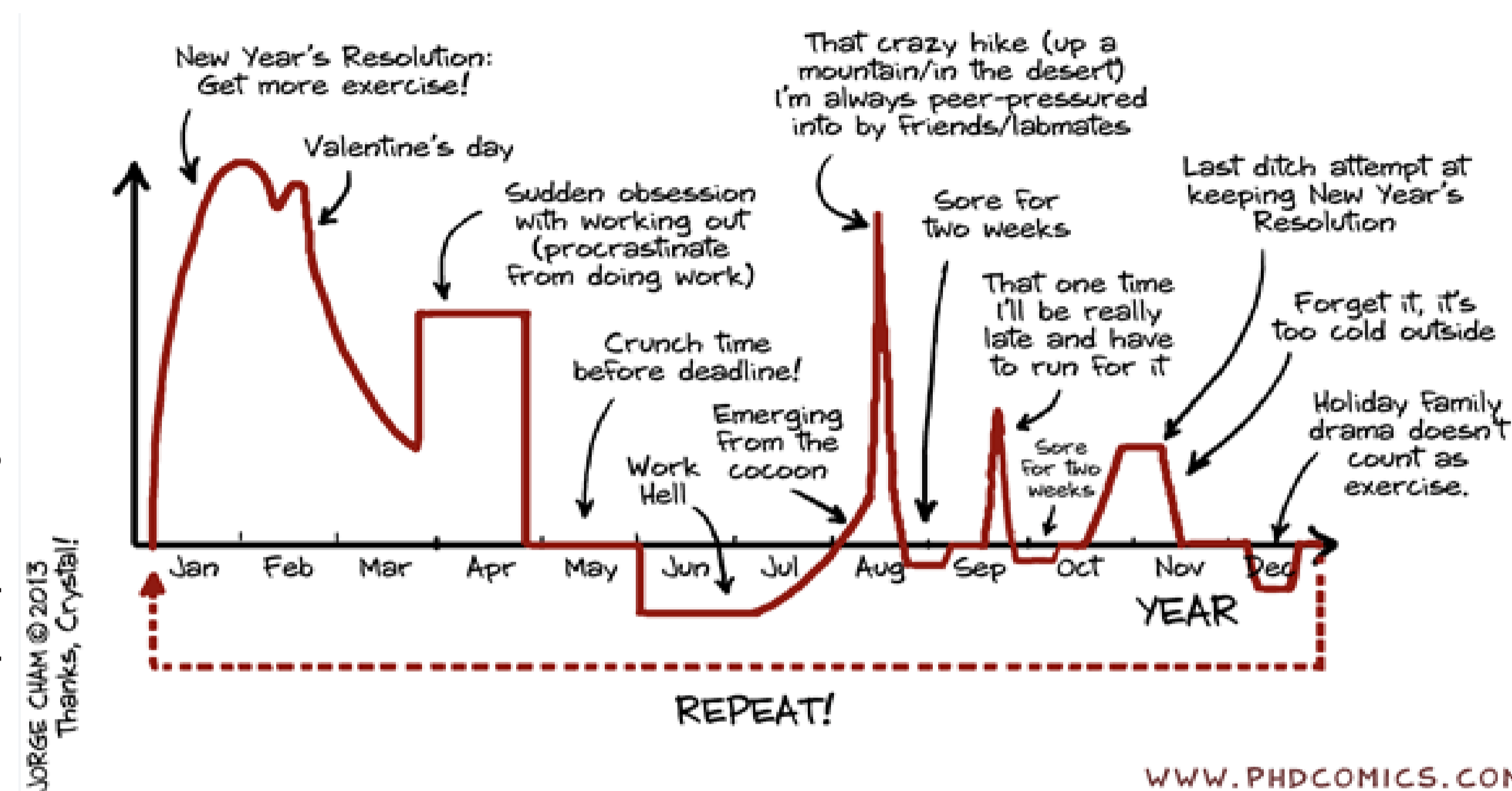


Fig 1. Amount of Exercise I Get Over The Course of the Year. Copyright Jorge Cham. www.phd-comics.com

GLUCOSE TOLERANCE

↓ 90 minute Blood Glucose concentration

↓ AUC for 120 minute Oral Glucose Tolerance Test

Figure 2 (LEFT)

BODY COMPOSITION

↓ Fat Mass in
Sub-total
Upper Limbs
Lower Limbs

Figure 3 (RIGHT)

Leads to ↓ in % Fat Mass in:

Upper Limbs
Lower Limbs

CONCLUSION

HIIT shows similar health benefits to traditional exercise modes.

Reduced time commitment means that HIIT removes a major barrier to being physically active

Means that PA guidelines need re-viewing

REFERENCES

- 1) Department of Health (2011). <https://www.gov.uk/government/publications/uk-physical-activity-guidelines> (Accessed 27-02-14)
- 2) American College of Sports Medicine (2010). 8th ed. Philadelphia (PA). Lippincott Williams & Wilkins
- 3) Babraj et al., (2009). BMC Endocr Disord, 9:1-8.
- 4) Guppy (2014) Ph.D. Thesis. Aberystwyth University, UK

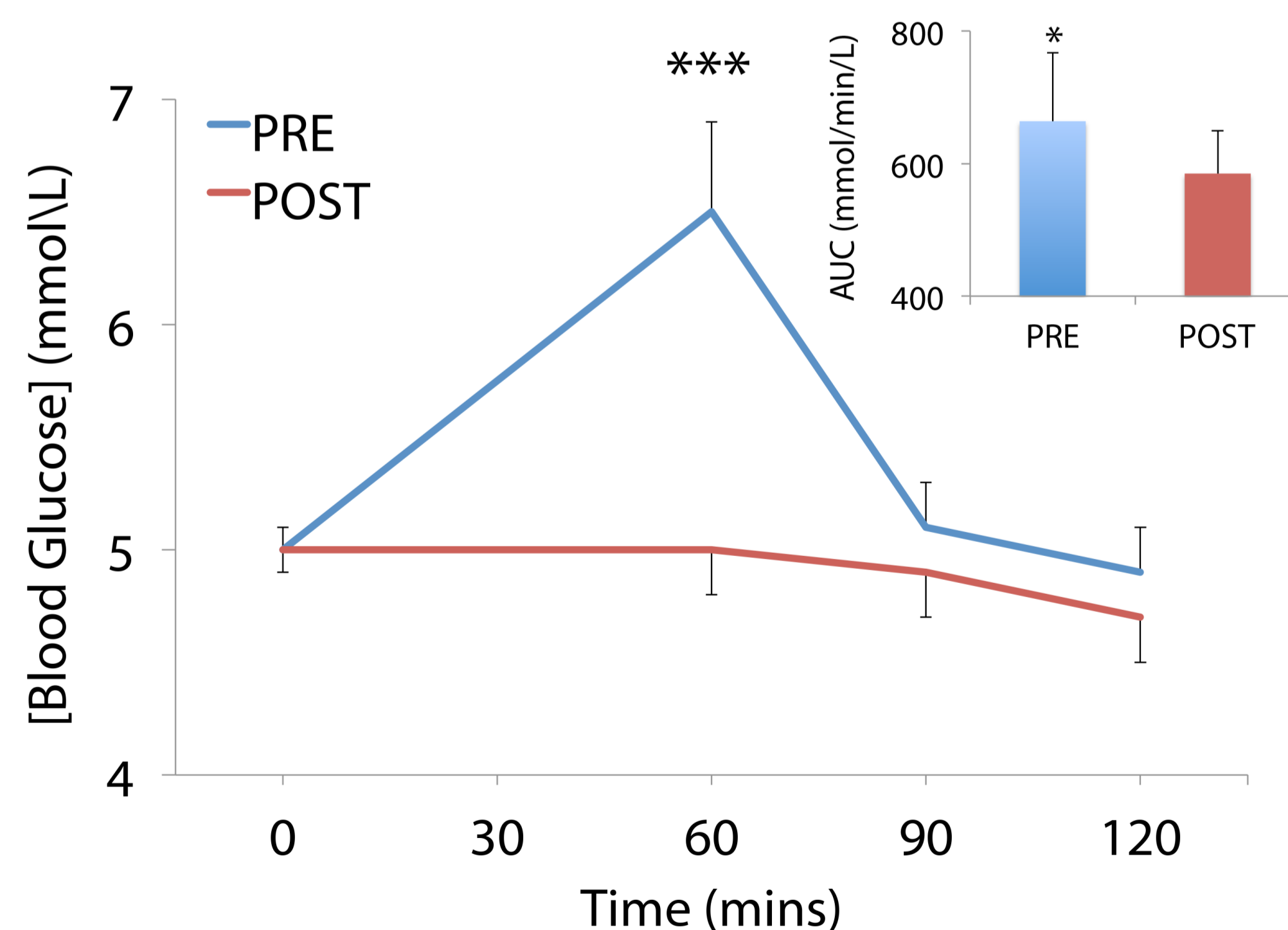


Fig 2. Changes in blood glucose response following 2 weeks HIIT. * denotes sig different from post $p < 0.05$, *** denotes significantly different from post $p < 0.001$ ³

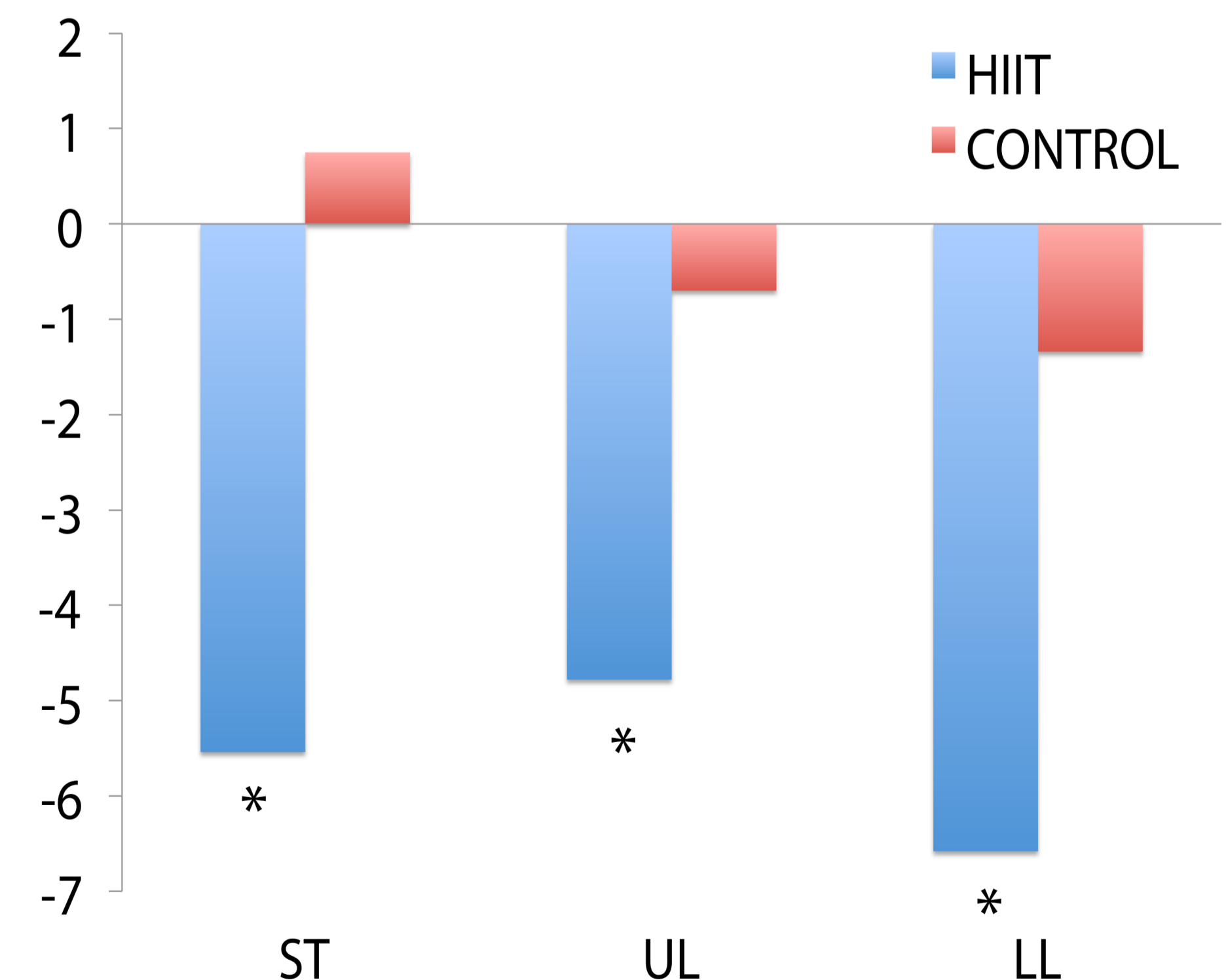


Fig 3. Percentage Change in Fat Mass following 6-weeks HIIT. ST; Subtotal, UL; Upper Limbs, LL; Lower limbs. * denotes significantly different from Control condition $p < 0.05$ ⁴