

# MYO-REPS VS. TRADITIONAL HYPERTROPHY: STRENGTH RECOVERY AND FATIGUE DISSIPATION FOLLOWING ONE WEEK OF TRAINING CESSATION



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## BACKGROUND

- Hypertrophy training often induces significant fatigue<sup>1</sup>, which can temporarily mask true maximal strength capacity.<sup>2</sup>
- While traditional (TRAD) hypertrophy programs emphasize high volume<sup>3</sup>, emerging methods like myo-reps (MYO) may offer a more time-efficient alternative with reduced fatigue accumulation.
- Exploring how different training styles influence short-term recovery and strength retention may help inform more individualized or efficient programming decisions.

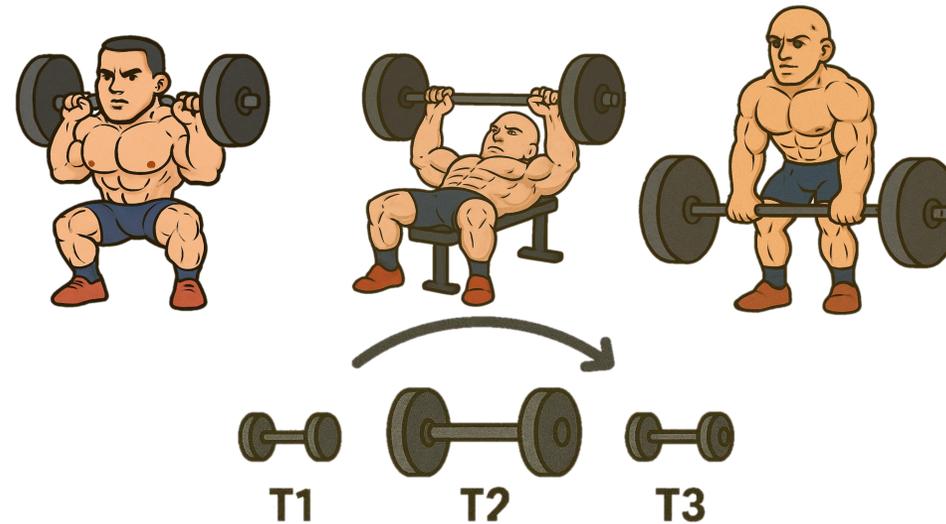
## METHODS

- Participants: 8 strength-trained males (22.1 ± 2.0 yrs; 175.2 ± 5.6 cm; 84.2 ± 18.6 kg; DOTS: 266.8 ± 35.1)
- Protocol: Participants completed either a MYO or TRAD program for 8 weeks, with training volume matched between groups.
- Data Collection (Fig. 1): One-repetition maximum (1RM) testing for back squat (BS), bench press (BP), and deadlift (DL) was conducted at three time points: pre-training (T1), post-training (T2), and after seven days (7D) of training cessation (T3). Total strength was quantified as the summation of all three lifts (1RM TOT).
- Analyses:
  - Descriptive change analysis (% change)
  - Pearson's correlations (r)
  - t-test for volume match (p > 0.05)
- Interpretation:
  - Hedges' g scale for effect size (g)
  - Hopkins' scale for effect size (r)

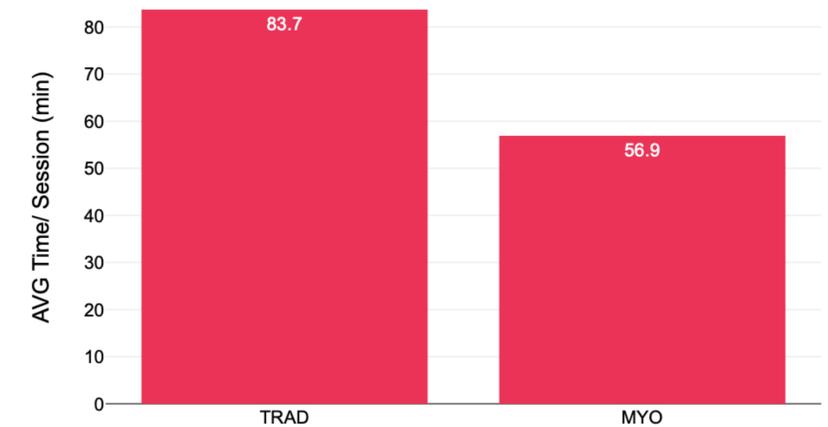
## RESULTS

- **T1 – T2:**
  - MYO: small to moderate increases in maximal strength across all lifts
    - BS (+20.0 kg, 16.2%, g = 0.61)
    - BP (+10.0 kg, 10.7%, g = 0.53)
    - DL (+25.9 kg, 18.5%, g = 0.86)
    - TOT (+55.8 kg, 15.5%, g = 0.73)
  - TRAD: only small improvements in maximal strength across all lifts
    - BS (+9.1 kg, 6.2%, g = 0.25)
    - BP (+3.8 kg, 3.3%, g = 0.23)
    - DL (+16.6 kg, 10.3%, g = 0.46)
    - TOT (+29.5 kg, 6.9%, g = 0.35)
- **T2 – T3:**
  - MYO: retained small strength increases in:
    - BS (+5.4 kg, 3.7%, g = 0.22) and trivial changes in:
      - BP (+1.1 kg, 1.1%, g = 0.20)
      - DL (+4.5 kg, 2.9%, g = 0.10)
      - TOT (+11.1 kg, 2.7%, g = 0.20).
  - TRAD: only trivial changes across all lifts, suggesting little to no meaningful recovery
    - BS (+1.5 kg; 0.5%, g = 0.04)
    - BP (+2.3 kg, 1.9%, g = 0.13)
    - DL (+2.3 kg, 1.1%, g = 0.06)
    - TOT (+6.0 kg, 1.2%, g = 0.07)

From T2 to T3, the relationship between training volume and strength weakened across most measures, suggesting a diminished role of prior workload in short-term strength retention. Strength retention followed the trend BP < TOT < BS < DL, with BP maintaining the strongest correlation (r = 0.926), while all other lifts declined (TOT: r = 0.897, BS: r = 0.865, DL: r = 0.754). Notably, only the BP did not decrease, highlighting potential differences in short-term retention between upper- and lower-body strength following hypertrophy training. Although training volume did not differ significantly (p > 0.05), differences in intra-session time distribution (MYO:TRAD = 2:3) may have influenced recovery trends.



**Figure 1.** Overview of one-repetition maximum (1RM) testing for back squat (BS), bench press (BP), and deadlift (DL) conducted at three different time points: pre-training (T1), post-training (T2), and after seven days (7D) of training cessation (T3).



**Figure 2.** The MYO protocol completed the same volume-matched workload 32% faster than TRAD. This reduction in intra-session duration may explain MYO's superior fatigue resistance and strength retention post-training.

7D of short-term training cessation allowed for partial strength restoration in MYO but did not support recovery in TRAD

## CONCLUSIONS

- 7D of short-term training cessation allowed for partial strength restoration in MYO but did not support recovery in TRAD, suggesting that training load distribution may influence short-term recovery dynamics following hypertrophy-focused training periods where accumulative fatigue masking 1RM strength is expected.
- The greater recovery observed in MYO, despite matched training volume, may be attributed to reduced intra-session fatigue and shorter training duration. This highlights the potential for MYO-based protocols to improve both performance outcomes and recovery efficiency compared to traditional high-volume approaches.

## PRACTICAL APPLICATIONS

- MYO-style hypertrophy training offers a time-efficient and potentially more fatigue-resistant alternative to TRAD protocols.
- MYO allows athletes to complete the same workload in ~2/3 of the time while reducing excessive fatigue, making it ideal for time-constrained individuals, competitive athletes, and those seeking hypertrophy without risking ≥7 days of 1RM suppression.
- Sport scientists and coaches should consider MYO-based approaches to enhance hypertrophy and strength recovery without the trade-offs of high-volume TRAD training.

## REFERENCES

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