

High-Intensity Functional Training for Strength Development

2025 IDEA WORLD

Session #621 – 7/19, 8-9:50am

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High-intensity functional training (HIFT)

- Exercise program that emphasizes *functional, multi-joint exercises* performed at high intensity that can be modified for *all fitness levels*.

Benefits of HIFT

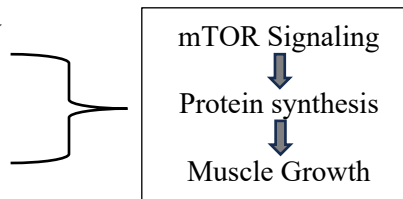
- *Time-efficient* approach to meet the current physical activity guidelines (150min/wk moderate intensity aerobic exercise and 2 days/wk of resistance exercise)
- *Improve general fitness and performance* (cardiorespiratory and muscular fitness, flexibility, body composition, balance, coordination, etc.)
- *Foster exercise adherence* (found to be more enjoyable than traditional aerobic and resistance training exercise programs).

HIFT for Strength Development

- 6 weeks of HIFT improved muscular strength in young men and women (~23yrs) (McWeeny et al., 2020).
- 8 weeks of a common HIFT workout performed 3 days per week improved vertical jump and bench press in male wrestlers (19-24yrs) (Yüksel et al., 2018).
- 8 weeks of HIFT improved vertical jump in active males and females (Posnakidis et al., 2022).

Physiology of Strength Development

- Neural adaptations
 - Improved motor unit recruitment
 - Improved synchronization/coordination
 - Increased firing rate - rate of force development
- Muscular adaptations
 - Hypertrophy – increase in muscle cross sectional area, primarily increasing number of myofibrils (contractile units) within the muscle fibers, and an increase in type IIa muscle fibers.
 - Mechanisms of hypertrophy
 - Mechanical tension
 - Metabolic stress
 - Muscle Damage



Resistance Training Variables

- Volume (sets x repetitions)
- Intensity (load)
- Exercise order and selection
- Time under tension
- Rest intervals
- Velocity of contraction
- Frequency

Low Load vs. High Load in Resistance Training

- HIFT incorporates low (< 60% 1-RM) and high load training (> 65% 1-RM) both of which have elicited positive adaptations in hypertrophy and strength (Schoenfeld et al., 2016; Vann et al., 2022).
- 12 weeks of low load (30% 1-RM) and moderate load (70% 1-RM) HIFT similarly increased lean body mass and 1-RMs (Kapis et al., 2022).

HIFT Workout Structure

- *Diversified and flexible*, allowing nearly infinite combinations of modalities.
- Combination of *weightlifting*, *gymnastics*, and *cardio exercises*.
- Perform *proper repetitions* as fast as possible.
- *Relative work intensities*.
- *Specific volume* - "rounds for time" (RFT) or *designated time frame* - "as many rounds or repetitions as possible" (AMRAP)
- *Rest taken as needed*.

Type of HIFT Workouts

- AMRAP = as many repetitions as possible; *set time/varied volume*
- RFT = rounds for time; *set volume/varied time*
- EMOM = every minute on the minute; *set volume/set time*

HIFT Resistance Exercise Selection

A. Weighted Movements

Snatch – hang, power, squat
Clean – hang, power, squat
Jerk – Overhead Press, Push Press, Power Jerk
Squat – back squat, front squat, overhead Squat
Thruster
Deadlift
Bench Press
MB Wall Ball
KB Swing

B. Gymnastics – Bodyweight

Core – superman, hollow body hold, sit-ups, knee Raises, TTB
Push-up – standard, handstand push-ups, modified variations
Pull-up – suspended row, strict pull-up, kipping pull-up, muscle up
Burpee
Lunges
Body weight Squat
Box Jump/Step-up

Examples of HIFT Workouts for Strength Development

| | |
|---|---|
| Workout #1: 3 Round for Time 100ft Single Dumbbell (DB) Walking Lunge (35/25) 30 DB Bench Press (60% 1RM) -Rest 5:00- 3 Rounds: 50ft Double DB Front Rack Walking Lunge 15 DB Bench Press (75% 1RM) | Workout #2: For Time 10 Calories on Air Bike 10 Strict Handstand Push-ups (HSPU) 30 Ring Rows 20 Cal Bike 20 Kipping HSPU 20 Chin over Bar (COB) Pull-ups 30 Cal Bike 30 Push-ups 10 Chest-to-Bar Pull-ups 20 Cal Bike 20 Kipping HSPU 20 COB Pull-ups 10 Cal Bike 10 Strict HSPU 30 Ring Rows |
| Workout #3: 8 Rounds for Time 250m Row 5 Squat Snatch (70% 1RM) -Rest 90sec between | Workout #4: 18min AMRAP 9 Deadlifts (50%) 12 Box Jumps (24/20) 15 V-Ups |
| Workout #5: 21-minute EMOM 10 DB Hang Power Clean (65% 1RM) 8 DB Thruster (65% 1RM) 6 Lateral Burpee over DB | |

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