

## **F.I.R.E.! - Fierce Interval Resistance Exercise!**

**Metabolic Training (MET)** is completing compound, whole body exercises with little to no rest between exercises in order to maximize caloric expenditure in as short a time as possible. Metabolic training focuses on an increased metabolic rate during and post exercise.

1. MET uses large muscle groups through large ROM
2. MET is high intensity, typically with intervals above Lactate Threshold (LT)
3. MET Increases metabolism post exercise through increased Excess Post Oxygen Consumption (EPOC)

**High intensity interval training (HIIT)** uses relatively short, high intensity cardiovascular intervals that are alternated with less intense active recovery intervals. The workouts typically include short bursts (6 seconds to 4 minutes) of intense exercise ( $\geq 90\%$  maximal aerobic capacity) alternating with relief breaks of varying lengths (Kessler, Sisson & Short 2012; Boutcher 2011).

### **Acute or Immediate Physiological Responses to a HIIT Workout**

- Heart rate elevates significantly
- Epinephrine and norepinephrine are elevated 6.3-14.5 times above baseline
- Initially, blood glucose from glycogen breakdown is elevated for exercise fuel but it may decline during the HIIT session
- ATP and phosphocreatine decline steadily (used to meet rapid-fuel needs of contracting muscles).
- The sympathetic nervous system, which speeds up neural messages, is elevated
- The parasympathetic nervous system, which slows neural signaling messages, is depressed.
- Lactate levels may increase up to 10 times above baseline
- Growth hormone may increase up to 10 times above baseline
- Venous blood return to the heart is enhanced, directly increasing stroke volume
- Increased levels of blood glycerol and free fatty acids suggest early breakdown of triglycerides.

## Program 1. Complex Training

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| Complex training involves performing a tri-set of 4 different exercises with little to no rest between. Exercise one is upper body bias, two is lower body bias, exercise three is a core bias and exercise four is cardio based. Goal: Improve core stability and power, increase total body dynamic range of motion and muscular strength endurance 45 min = 1 set. 60min = 2 sets. Using a partner creates an external anchor-point |
| Equipment: Rubber Resistance and Dumbbells   |
| XT= Xertube, DB = Dumbbells,   |
| Time: 45-60 seconds  |
| Rest: 15-30 seconds after the quad-set   |
| Speed: RR slow controlled, DB slow controlled, DB rapid momentum   |

| Upper Body                      | Lower Body                                    | Core  | Cardio                                     |
|---------------------------------|---|---|--|
| DB 1-arm row                    | DB Goblet Sumo Squat                          | DB Russian Twist                                  | Forward Leap 1-2 run                       |
| XT Partner Squat and Press      | XT Partner facing Bow and Arrow Lateral Lunge | XT Partner Side-by-side out of sync sagittal chop | High 10-Low 10                             |
| DB Alt Push Press               | DB Transverse Lunge and Figure 8              | Plank to Step-through Plank                       | Speed skater 1-2 quick/slow                |
| XT Partner 1-arm row and rotate | XT Partner Chain-gang Squat                   | XT Partner Rotation                               | Partner Burpie high 10 low 5 + ½ turn jump |

## Program 2. Tri-Set Training

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| Tri-set training involves performing a tri-set of 3 different exercises with little to no rest between. Exercise one is upper body bias, two is lower body bias and three is a core bias. Goal: Improve core stability and power, increase total body dynamic range of motion and muscular strength endurance 30min = 1 set. 45min = 2 sets. 60min = 3 sets |
| Equipment: The Step, Rubber Resistance and Dumbbells  |
| XT= Xertube, DB = Dumbbells   |
| Time: 60 seconds Lower Body/60 seconds Upper Body/20:10 x 4 Cardio  |
| Rest: 15-30 seconds after the tri-set   |
| Speed: RR slow controlled, DB slow controlled, MB rapid momentum  |

| Lower Body                                     | Upper Body                     | Cardio                   |
|--|--------------------------------|--------------------------|
| XT Lateral Squat/Rear Lunge                    | XT 1-Arm Row                   | 1-2 Jump Switch Lunge    |
| DB X-Over Step up/Lateral Lunge                | Scorpion Push up to side plank | Sprinter Runs            |
| XT Front Step up/1-legged squat heel tap front | XT Sword Draw + curl           | Quick Feet Straddle Taps |

### Program 3. Complex Training

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| Complex training involves performing two sets of two different exercises with little to no rest between. Goal: Improve power endurance, anaerobic capacity, increase total body dynamic range of motion and muscular strength endurance 30min = 1 set. 45min = 2 sets. 60min = 3 sets |
| Equipment: The Step Rubber Resistance and Dumbbells   |
| XT= Xertube, DB = Dumbbells,  |
| Time: 45-60 seconds   |
| Rest: 15-30 seconds after the tri-set   |
| Speed: RR slow controlled, DB slow controlled, DB rapid momentum  |

| Total Body                           | Cardio                       |
|--------------------------------------|------------------------------|
| DB Golf Chop                         | Knee Hop Mountain Climber    |
| XT Sword Draw and curl with step up  | Along the Step + Jump Switch |
| Scorpion Push Up                     | Straddle Burpie jump up      |
| DB Dead lift plank                   | Quick Switch x 4 + Leap      |
| DB Alt Walk up lunge back curl press | Alt Side Power Squat         |
| DB Plank Row                         | Jump Lunge                   |
| DB X-over Step up                    | Repeater Knee Skip           |

**People don't care about how much you know  
until they know how much you care!**