

# Load & Explode

## Session #3138

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No equipment?—no problem! Load and Explode has you covered. This bodyweight-only HIIT workout will give your students results anytime, anywhere. Show them how they can burn calories as they move through all planes of motion and increase their agility, strength, stamina, and power.

### **Objectives**

- 1) Identify benefits of metabolic HIIT training
- 2) Outline jumping and landing mechanics and cues
- 3) Learn a variety of multi planar HIIT training protocols and exercises

### **Physiological and Program Benefits of HIIT**

- The whole premise is to increase the after burn or EPOC (Excessive Post Exercise Oxygen Consumption). It can last for hours!!
- Improved anaerobic and aerobic capacity (VO2 max)
- Fat burn is greater when exercise intensity is high: compare two different exercise plans for the same client – a 30 mins walk on a treadmill for a 30-year-old client.

**50% VO@ max                      200 calories (50% fat)                      100 fat calories**

**70% VO2 max                      310 calories (40% fat)                      124 fat calories**

\*\*these are hypothetical numbers of calories expended, but the percentages are accurate.

- Improve muscular strength, endurance, agility and power
- It can be very challenging and time efficient
- It is so versatile and can be carried over into most formats
- HIIT defies traditional work: rest ratios in order to force body to recover faster

## **What is Metabolic Training?**

- Combination of cardiovascular and resistance training that creates a workout routine that is shorter and much more efficient
- Greater circulatory response leads to greater cardiovascular demand
- Total body based (compound) exercises increase demand on the body

## **Planar Training**

This is a more movement based (rather than muscle group based) approach to programming or class planning.

Remember when trying to identify what plane a movement is in, you must analyze it from anatomical position. Which is??

### **Planes of Motion**

- 1)** Sagittal Plane – front and back movements

Examples:

- 2)** Frontal Plane – lateral or side to side movements

Examples:

- 3)** Transverse Plane – Rotation

Examples:

## **Load and Explode Principles**

- What is the difference between power and plyometrics?
- Strength + Speed = Power

These exercises enable a muscle to reach maximum strength in as short a time as possible. Plyometrics works on developing explosive power and maximally recruiting fast twitch muscle fibres by eccentrically loading a muscle (deceleration). When the muscle spindle is stimulated by the speed and rapid rate of stretch, it causes a quick concentric contraction (exploding).

One of the goals is to decrease Amortization time. This is the time spent on the ground between contraction phases. It is the phase between energy storage and energy release.

These exercises teach people to absorb landing and get off the ground (vertical jump). As speed is involved, cues around how to properly load and explode are imperative for client success.

## **HIIT Protocols**

### **1) AMGRAP - 8 exercises 10 reps each for 2 rounds**

1. Side lunge, forward lunge 1-2 jab
2. Alt shoulder tap, alt mountain climber, 1 squat jump
3. Table top push up
4. 2 knees, jump kick
5. Jab 1-2-3 lateral
6. Plank to table top with cross under
7. Side lying tricep push up
8. Stutter step to lateral leap

### **2) Tabata (20 secs work, 10 secs rest, 8 times = 4 mins)**

1. Stutter Lunge – Sets 1, 3, 5 and 7
2. Air jacks 4x, 1 squat jump forward – Sets 2, 4, 6 and 8

### **3) AMGRAP – 8 exercises, 45 secs work/15 secs rest for 2-3 rounds**

1. Squat to oblique plank
2. Hook slip upper cut slip R
3. Eccentric chaturanga
4. Get up front angle lunge
5. Hook slip upper cut L
6. Squat lunge kick switch 2
7. Down dog scapular depression
8. Plank press back squat to sumo

### **4) Copenhagen – 30 secs/20 secs/10 secs - Moderate/ Hard/Hardest**

- 30 secs – knee drive
- 20 secs – add depth
- 10 secs – add jump

### **5) Core AMGRAP – 7 exercises, 10 reps or 10 secs of each. How many rounds in 5 mins?**

1. Hollow body
2. Swimmers with extension
3. Supine scapular retraction
4. Anti-rotation dead bug
5. Offset push up
6. Forearm plank with cross under
7. Prone reach back – touch hand to heel

**6) Hard/Harder/Hardest – 20/20/20**

- 20 secs – pulse lunge
- 20secs lift back leg
- 20 secs lift both

**7) Medal Round – Rep Ladder – Teams of 4, first team done 2 rounds wins!!**

1. Mountain climber get up – 5x each
2. Squat touch knee drive – 10 x
3. Low lunge front kick – 15x
4. Lunge squat lunge squat with jump 20x