High Intensity Internal Training (H.I.I.T.) has emerged as a highly effective method for weight loss, VO2 Max and Anaerobic Capacity and general conditioning. As this training style continues to evolve it is important to understand the key principles and best practices associated with performing these intervals effectively and safely. Without these guiding principles and best practices, HIIT is often reduced to a dangerous exercise methodology that puts participants at a much increased risk of injury.

#### **Five TRX Concepts for High Intensity Interval Training**

#### 1. Move Better Approach to Training - Movement Continuum Theory

Traditionally the components of fitness have been described as Cardiovascular Fitness, Muscular Endurance, Flexibility, Muscular Strength, and Body Composition. More recently other components have been proposed such as Stamina, Power, Speed, Agility, Coordination and Balance.

An argument can be made that the missing component and perhaps the foundation for all of these components of fitness is simply movement. Adopting a movement



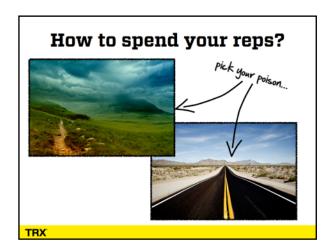
based approach to training assumes the following. "If I can help you move better then all of the components get getter as product of this increased quality / efficiency. From this approach has spawned the Movement Continuum Theory which proposes that the the six components that support the "Move Better" approach to training are as follows:

- 1.Flexibility
- 2.Speed
- 3.Strength
- 4.Accuracy
- 5.Adaptability
- 6.Endurance

#### 2. Durability

This concept can loosely be explained as the resistance to a decline in movement quality and injury and can be broken down into Acute and Chronic viewpoints.

Tolerance is the acute resistance to training whether it be degradation of movement, fatigue or some combination of both. Capacity can be described as chronic resistance to training where an individual can withstand greater and greater volumes or intensity of training without breaking down in the form of injury or reduced performance. As a general training goal we want to increase both tolerance and capacity which will lead to increased performance and reduced incidence of injury. An important consideration to this



end is "how do we want to spend our reps of higher risk movements?" As an example, if life or sport demands lumbar spinal flexion and we are award that there are significant risks associated with this motion then we will want to limit the performance of this motion in training as it could significantly reduce the tolerance and or capacity for our training.

#### 3. What Should Be Stable? What Should Be Mobile?

To ensure a high quality of movement, professional practitioners must have a strong understanding of what should be stable and what should be mobile. Where should the



movement be coming from and just as importantly, where should it not be coming from? Generally speaking the body's joints are organized in an alternating cadence where the foot, knee, lumbar spine and cervical spine are stable and the ankle, hip, thoracic spine and shoulder joints are mobile. This is of course a generalization and the reality is that "what should be stable and what should be mobile" needs to be understood and assessed on a movement by movement basis to maximize durability and performance.

#### 4. High Intensity Intervals Based on Strong Focused Movements

The application of high intensity intervals needs to be predicated on the successful and skillful performance of strong focused movements. The nature of HIIT is that exercises are often performed at high speed and in many cases in motivating, competitive environments where quantity can overtake the priority of quality. A mantra to help avoid this state is "It is not what you do but HOW you do it that counts." Time must be taken to teach strong focused movements before



#### 5. Earn The Right To Progress

Related to the previously described principle, "Earn the right to progress" describes the process by which users of H.I.I.T. should move through progressions of training variables. Initially participants must learn the right progression to perform where they can be successful with the training volume while meeting all movement standards. Once this baseline is established increases in intensity must be earned incrementally by perfecting the established progression prior to adding more challenge on to a given training variable. It is equally important to only increase one training variable at a time.

#### TRX Programming "best practices" for High Intensity Interval Training

#### 1. Exercise Selection

There are 3 main considerations to address when looking at exercise selection for H.I.I.T. with the Suspension Trainer and / or the Rip Trainer.

- 1. What are the foundational movements?
- 2. What are the primary planes of motions at which joints?
- 3. What is the body position in relation to the anchor point?

An awareness of these considerations will ensure purposeful decisions around exercise selection and align the programming properly with the objectives for the workout.

#### 2. Exercise Sequencing

The three considerations for exercise sequencing as follows:

- 1. Local muscular fatigue
- 2. Modality order
- 3. Body position in relation to the anchor point

#### 3. Set Arrangement

For HIIT the best set arrangement is generally a time based approach. This allows for the following advantages:

- Better for groups if sharing equipment as individuals will finish sets at the same time regardless of their ability level
- Allows for individualization of training intensity in a group environment
- +1 / -1 Concept supports the Move Better approach to training and puts the emphasis on a high movement quality throughout the training session

#### 4. Intensity Selection

- 1. Duration
- 2. Resistance
- 3. Speed of Movement

All of the above considerations should be individualized and skill and conditioning dependent and allow for high quality movement throughout the set, round and workout.

#### 5. Rest Structure

1. Rest = Reset

Set and transition rest should be individualized and skill and conditioning dependent while kept to a minimum while allowing high quality movement throughout the set, round and workout

2. RESET - Quality Control Measure

allowing the reset promotes better movement and puts the emphasis on quality as opposed to volume - it's not what you do but how you do it that counts - Not 1 set of 12 - 12 sets of 1 concept

## 6. Progression System

- 1. 3 Major levels of Progression:
  - 1. Entry
  - 2. Advanced
  - 3. Pinnacle
- 2. Training Variable Progression Order:
  - 1. Reset Volume
  - 2. Set Rest
  - 3. Transition Rest
  - 4. Set time
  - 5. Resistance
  - 6. Round #
- 3. Master each micro progression before moving on to the next

### Example

Round	Exercise		Sets	Reps	Set Rest	Transition Rest
Pinnacle 1 to 3 Rounds	1	ST Cycle Jumps	2	60 seconds (5 & reset, +/- 1 option)	10 sec	30 sec
	2	RT Samurai Strike	2 (1 each side)	60 seconds (5 & reset, +/- 1 option)	10 sec	30 sec
	3	ST Atomic Pushup	2	60 seconds (5 & reset, +/- 1 option)	10 sec	30 sec
	4	RT Squat Row	2 (1 each side)	60 seconds (5 & reset, +/- 1 option)	10 sec	30 sec
Advanced  1 to 2 Rounds	1	ST Cycle Jumps	2	45 seconds (3 & reset, +/- 1 option)	20 sec	45 sec
	2	RT Samurai Strike	2 (1 each side)	45 seconds (3 & reset, +/- 1 option)	20 sec	45 sec
	3	ST Atomic Pushup	2	45 seconds (3 & reset, +/- 1 option)	20 sec	45 sec
	4	RT Squat Row	2 (1 each side)	45 seconds (3 & reset, +/- 1 option)	20 sec	45 sec
Entry 1 Round	1	ST Cycle Jumps	2	30 seconds (1 & reset, +1 option)	30 sec	60 sec
	2	RT Samurai Strike	2 (1 each side)	30 seconds (1 & reset, +1 option)	30 sec	60 sec
	3	ST Atomic Pushup	2	30 seconds (1 & reset, +1 option)	30 sec	60 sec
	4	RT Squat Row	2 (1 each side)	30 seconds (1 & reset, +1 option)	30 sec	60 sec

# H.I.I.T. Workout

		EXERCISE	SETS	REPS / TIME	SET REST	TRANSITION REST
Movement Prep	1	ST Cycle Jumps	3 - 5	+1 up to 3 - 5	5-10 sec	1 to 2 minutes
	2	RT Samurai Strike	3 - 5 each side	+1 up to 3 - 5	5-10 sec	1 to 2 minutes
	3	ST Atomic Pushup	3-5	+1 up to 3 - 5	5-10 sec	1 to 2 minutes
	4	RT Squat Row	3 - 5 each side	+1 up to 3 - 5	5-10 sec	1 to 2 minutes
H.I.I.T	1	ST Cycle Jumps	2	45 seconds (3 & reset, +/- 1 option)	15 sec	30 sec
	2	RT Samurai Strike	2 (1 each side)	45 seconds (3 & reset, +/- 1 option)	15 sec	30 sec
	3	ST Atomic Pushup	2	45 seconds (3 & reset, +/- 1 option)	15 sec	30 sec
	4	RT Squat Row	2 (1 each side)	45 seconds (3 & reset, +/- 1 option)	15 sec	30 sec
Strength	1	ST Balance Lunge (SLOW and pause)	1 each side	45 seconds	15 sec	30 sec
	2	RT Samurai Strike (SLOW with stack)	1 each side	45 seconds	15 sec	30 sec
	3	ST Atomic Pushup (SLOW and pause)	2	45 seconds	15 sec	30 sec
	4	RT Squat Row with Ward (SLOW and hold)	1 each side	45 seconds	15 sec	30 sec



1. ST Cycle Jump



2. Rip Samurai Strike



3. ST Atomic Pushup



4. Rip Squat Row