

TRX Suspension & Rip Training Fusion

Audience Notes

Objectives

1. Participants are able to clearly articulate, and differentiate, the benefits of strength training using the Suspension Trainer and rotational power training using the Rip Trainer
2. Participants are able to clearly articulate the commonality (“all core all the time,”) between Suspension and Rip Training
3. Participants experience a Suspension Training and Rip Training fusion workout

Introduction

TRX recognizes that proper movement is the foundation of health, fitness, performance and durability. When you move better, you are stronger, faster and more resilient. It is our goal to provide “world class” gear, programming and education which will help anyone of any fitness level achieve proper movement, reach their goals and improve their lives. The TRX Suspension Trainer and Rip Trainer are part of this puzzle and both offer unique benefits while training for proper movement.



Among the multitude of attributes needed to function in daily life and sports, strength and power are arguably two of the most important. **Strength** is traditionally defined as maximal voluntary muscular contraction for a specific movement and is measured as a one repetition max. However, many activities of daily living and sports require repeated bouts of strength over time: strength endurance. Regardless of what type of strength one is training for, high tension loads are required to

achieve muscular adaptations aimed at improving strength. The TRX Suspension Trainer has the perfect blend of instability, which increases core activation, and stability allowing users to train for strength.

Conversely, **Power** is force multiplied by distance and divided by time (thus, power training involves lighter loads and faster movement speeds.) The TRX Rip Trainer provides lighter loads at the initial range of motion allowing users to accelerate the Rip Trainer at high rates of speed promoting power. Additionally, controlling and producing rotation is critical to proper movement. Rip Training challenges the user to either control or produce rotation in every exercise.



$$\text{Power} = \frac{\text{Force} \times \text{Distance}}{\text{Time}}$$

Common Ground

Proper posture is essential in activities of daily living and in sports. Postural faults that persist can give rise to discomfort, pain or disability (Kendall, et al. 1983.) Core muscle activation is essential for the maintenance of proper posture. At TRX we employ the following mantra for movement training “**all core, all the time.**” Both the Suspension and Rip Trainer challenge posture on every exercise which forces the core to engage. While thinking about core muscle activation it is important to consider the concept described by James Dexter: “masses and spaces.” This concept defines the head, chest and hips as masses and the neck and waist as spaces. Common postural faults (forward head, forward shoulders, posterior pelvic tilt, etc.,) demonstrate diminished spaces between the masses. Maintaining proper posture, “masses & spaces,” and core activation accomplishes several things:

- enhanced power transfer
- mitigation of injuries
- improved balance
- improved aesthetics



Suspension Training Variables (6/6/3)

Prior to engaging in Suspension Training it is important to understand the 6 positions, 6 procedures and 3 principles of progression. The positions refer to body orientation relative to the anchor point and describe if the user is facing, facing away or facing sideways to the anchor point. The procedures identify how to adjust the straps and where to place the hands or feet for specific exercises. The three principles of progression are extremely important as they allow users to modify load or intensity for any goal. Following is a brief description of the three principles of progression.

VECTOR RESISTANCE PRINCIPLE

For most standing movements, positioning your feet closer to the anchor point will increase resistance and heighten the challenge. Stepping farther away from the anchor point will decrease resistance and make movements easier to execute. Note the below images: the image on the right highlights the athletes use of a steeper angle (feet closer to the anchor,) increasing difficulty.



PENDULUM PRINCIPLE

For ground-based movements, moving your feet away from the anchor point will increase resistance and heighten the challenge. Moving your feet towards the anchor point or behind the anchor point will decrease resistance and make movements easier to execute.

STABILITY PRINCIPLE

In general, performing movements with a narrower base of support or unilaterally (using just one arm or just one leg instead of both arms or both legs) will increase the challenge of TRX movements. The wider your base of support, the more stable you will be during TRX movements and the less challenging they will be to perform.

Rip Training Variables

Similar to Suspension Training, Rip Training has several variables which should be understood prior to using the system. Modifications in hand position, foot position, bar paths, bar targets, types of movement and movement speed can be used to obtain different functional outcomes. The most important thing to know in regards to Rip Training is how to adjust the intensity. There are two primary ways to modify intensity while TRX Rip Training. The TRX Vector Resistance Principle and the Stability Principle summate to create increased or decreased intensity while Rip Training.

The **Vector Resistance Principle** highlights the magnitude and direction of application of force. In simple terms, the principle describes how load can be modified to progress or regress Rip Training exercises. There are four ways to modify load using the Vector Resistance Principle:

- Body position relative to the anchor (the closer one is to the anchor the lighter the tension on the resistance cord and the easier the exercise)
- Hand position on the Rip Trainer (the further the hands are from the resistance cord, the less leverage users have increasing difficulty)
- Bar position relative to the body (the further the resistance cord end of the bar is from the body, the greater the load transmitted through the body and harder the exercise: see figures below)



- Resistance cord level (there are 5 different resistance cord levels ranging from (light 12 lbs,) to (XX-Heavy 56 lbs.) the heavier the cord the greater the intensity.

The ability to modify load and progress or regress Rip Training exercises in “real time” is an important feature of the Rip Training system. Modifications allow users to change intensity for increased challenges or to reduce load ensuring proper form and mechanics of motion.

The **TRX Stability Principle** refers to the relationship of one's center of gravity (C.O.G.) relative to their base of support. Generally, the lower one's C.O.G. and wider their base of support, the more stable they are. For instance a football linebacker getting ready to tackle an oncoming running back, widens their stance and lowers their hips to promote stability and to prepare for impact. Foot position can be modified in "real time" to create increased or decreased challenges to Rip Training exercises. Often times narrower stances and higher C.O.G. body positions are used to challenge core stability and progress exercises while Rip Training (see figures).



Keep in mind that although wider foot positions and lower C.O.G. body positions generally decrease intensity, they can be used to create a more stable platform for power production; subsequently, if the user is in a low stance and working with high velocity movement patterns, intensity can still be quite high.

Conclusion

TRX is dedicated to scientific research and application in the field of health and fitness. We believe that by applying "best practices" to movement based training, we can positively impact functional outcomes. We also aim to "democratize" world class training such that anyone at any age can have access to the best gear, programming and education the industry has to offer. TRX Suspension and Rip Training are valuable movement training tools which address strength, power, balance and overall athleticism. Incorporating TRX training into your strength and conditioning program will improve functional outcomes and is a novel way to approach overall health and fitness.

TRX Suspension & Rip Training Fusion Workout



1.) TRX Body Saw



2.) Rip Stack



3.) TRX Low Row



4.) Rip Pitchfork



5.) TRX Chest Press



6.) Rip 90 Degree Hop Press



7.) TRX Single Leg Squat



8.) Rip Hockey Slap Shot



9.) TRX Lunge



10.) Rip Samurai Strike

#	EXERCISE	SETS	REPS / TIME	SET REST	TRANSITION REST
1	ST Front Plank to Body Saw (10 sec. break in middle)	1	70 sec.	30 sec.	
2	Rip Stack	1	30 sec. per side	30 sec.	10 sec.
3	ST Inverted Row with Hip Hinge	1	70 sec.	30 sec.	
4	Rip Pitchfork	1	30 sec. per side	30 sec.	10 sec.
5	ST Chest Press	1	70 sec.	30 sec.	
6	Rip 90 Degree Hop Press	1	30 sec. per side	30 sec.	10 sec.
7	ST Single Leg Squat	1	30 sec. per side	30 sec.	
8	Rip Hockey Slap Shot	1	30 sec. per side	30 sec.	10 sec.
9	ST Lunge	1	30 sec. per side	30 sec.	15 sec.
10	Rip Samurai Strike	1	30 sec. per side	30 sec.	15 sec.