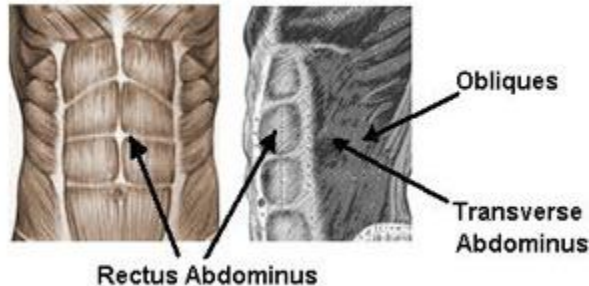


# ROTATIONAL DEVELOPMENT

by Mike Ranfone



The abstract nature of strength in regards to sport specific needs has brought about a change in how we define or categorize strength and as a consequence has made it unclear on how one should approach and address which one best suit the needs of the game. In truth, all components should be touched upon in a program; however, for baseball a certain bias or emphasis towards force production is crucial to on-the-field success. It must also be recognized that the transverse plane of movement in which baseball commonly functions within will take precedent in training although the others (frontal and sagittal) will also be utilized.

Looking at baseball from both general and sport specific perspectives there is overwhelming evidence that developing the athlete's rotational capacity is a critical need for the game. Building an athlete's rotational range of motion (ROM) and power will improve many aspects of his game from basic agility skills and injury prevention to the dominant throwing and hitting motions. Rotational actions occur at even the most basic movements such as walking so the importance of rotation increases as the intensity of the movement (sprinting) or the need for rotation (hitting) increases.

Although you cannot simply isolate a muscle group during the course of any action, including trunk rotation, the focus here will be on the duties performed by the internal and external obliques. Notable attributes of the obliques are lateral flexion, trunk stabilization, stability of the lumbar spine and the obvious function rotation of the torso. Many benefits result from this training focus such as lowered incidence of injury, improved efficiency of movement, greater muscle recruitment and ultimately improved performance on the field of competition.

Regardless of past "ab" or "core" work if you have not specifically performed rotational work it is imperative that you gradually progress so that you are training the muscles that you are intending and that you are training them in the manner in which they were intended. The following exercises are suggested for the novice in mind:

Any crunch that you rotate to a side as you perform the concentric phase of the movement

Twisting Hops (can be used in both GPP or Jump Rope circuits)

Torso Twists (either no weight, or with a tennis ball/medicine ball)

Russian Twists (seated, standing, weighted, on swiss ball or decline bench)  
Once proficient levels of the previous exercises have been reached more advanced methods and modes of training are needed to facilitate the growth of the athlete and his rotational capabilities. The use of medicine balls is a favorable medium because they add resistance to the movements, lengthen the rotational ROM, allow an increase of the speed at which the movement can be performed and ultimately they have a profound increase on the athlete's ability to move explosively in the desired planes of movement.

The two focus points of rotational work should be speed of execution and the eccentric phase of the movement because those aspects will lead to the greatest increases in rotational power. By increasing the speed of the movement and by performing each and every exercise with maximal effort you will be conditioning the body to move explosively and powerfully through proper muscle recruitment. Implementing high-force tasks in your training regime will recruit those muscles (Fast Twitch) that are specifically designed for greater power output, as well as the number of muscle groups recruited yielding a movement that is also more fluid and coordinated.

The second aspect that must be utilized in rotational development is the eccentric or loading phase of the motion. Just think ... when was the last time you saw an outfielder taking his time bringing the ball back to throw someone out? Hopefully never, since it is very difficult to generate the same type of velocity on a throw by elongating the time between the loading and projecting phases. To get the most out of rotational training one must focus on the eccentric to concentric phases (or SSC) is a must. For example, when performing a two handed swing toss with a partner don't just merely catch the ball, but instead receive it so that its momentum forces you to a fully extended and loaded position. Now as soon as the ROM limit is reached forcefully reverse directions as fast as possible to complete that side of the drill. By minimizing the transition period between the eccentric and concentric (receiving and throwing) you will have maximized the potential energy stored in the muscles and tendons, thus greatly increasing the speed and power of the athlete.

The exercises best suited for this type of training are:

Seated or Standing Twist

Seated throwing twist

One hand Swing

Two hand Swing

Remember to go light at first and make sure that there is a sufficient amount of accuracy involved in your throw for strength and power are meaningless unless they can be used under control.

MIKE RANFONE  
New Haven, CT | [mike@renegadetraining.com](mailto:mike@renegadetraining.com)

Michael is an independent Sports Performance Consultant based out of New Haven, CT. He offers a number of services in the fields of athletic development, injury prevention, soft tissue modalities and health & wellness. He currently works with high schools, colleges, businesses and individuals at both the local and national level.

In 2003, Michael graduated Cum Laude from Union College with a degree in Economics and Psychology while gaining entry into their respective National Honor Societies. On the field, he was a four-year letter winner, a three year All-League and All-Academic starter and a one-year Captain. He finished his collegiate career as the school's fifth all-time leading tackler while earning tryouts for several Arena/CFL teams.

His professional career started at Yale University where he served as the Strength & Conditioning Coordinator for over 500 Division I athletes. He returned to school in 2005, starting his own consulting business in conjunction with Renegade Training International. Since then he has written for numerous online publications, been a contributing author for many Renegade book/article productions, and been a part of over 25 R-style DVD projects.

Michael is a nationally Certified Strength and Conditioning Specialist (C.S.C.S.) through the N.S.C.A., a NCBTMB Certified Massage Therapist and an Elite Level Renegade Certified Trainer.