

Working small in off-season = big gains

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Too often, players pose the question "Do you perform strength training in the off-season program?" Many will follow this question up with the comment "That's what I've done in the past and it has worked well for me".

In many ways, comments such as these illustrate how misinformed the hockey community as a whole can be when it comes

to training that will improve performance on the ice. Many players associate training for hockey with the performance of basic strength training exercises.

So much more is involved in the development of hockey players in a training environment, but for many players strength training is the only component they actively work on.

Hockey is a game of power endurance, with successful players able to perform the

sport specific skills such as skating, shooting, deking, body checking and stick handling in short, intense shifts throughout the game.

Off-season training for these athletes must address the core stability, balance, power and energy system requirements of playing hockey, to say nothing of the need for increasing strength levels in a player.

Too often, stereotypes and training methods used for other sports dominate the workouts hockey players are given. Hockey players need programs that are constructed to complement the game they play on the ice, not isolate components of another sport a player would like to change in their own game.

Unfortunately, many hockey players will train for just basic strength improvements in their off-season program.

From the beginning of the off-season, these athletes are focused on increasing the weights they can lift, using the bench press, chin-up and squat exercises.

These basic lifts emphasize development of muscles referred to as prime movers, responsible primarily for generating movement of the body and its limbs.

Other muscles in the body, typically smaller and located closer to the joint surfaces, are called stabilizers.

Stabilizing muscles are responsible for maintaining the position and stability of a joint, adjusting constantly to the pull of the larger prime movers.

Stabilizer muscles fine tune movement at the joint level, while the prime movers work on gross motor movements.

An athlete's movement speed, is in part determined by how stable they are at the joint level.



Jim Reeves photo
 Pull the upper portion of one arm back level with the body so that the elbow is out to the side.

The body will limit how quickly a prime mover can contract if it recognizes instability in a joint the prime mover produces motion at.

Instead, the prime mover will assume partial responsibility of providing stability for that joint, limiting the muscle's effectiveness and force production capacity.

In addition, the stronger a prime mover becomes, the more stability is required at the joint level, due to an increase in the potential force and movement speed generated by this muscle.

Stronger prime movers create a need for more control from the stabilizing muscles.

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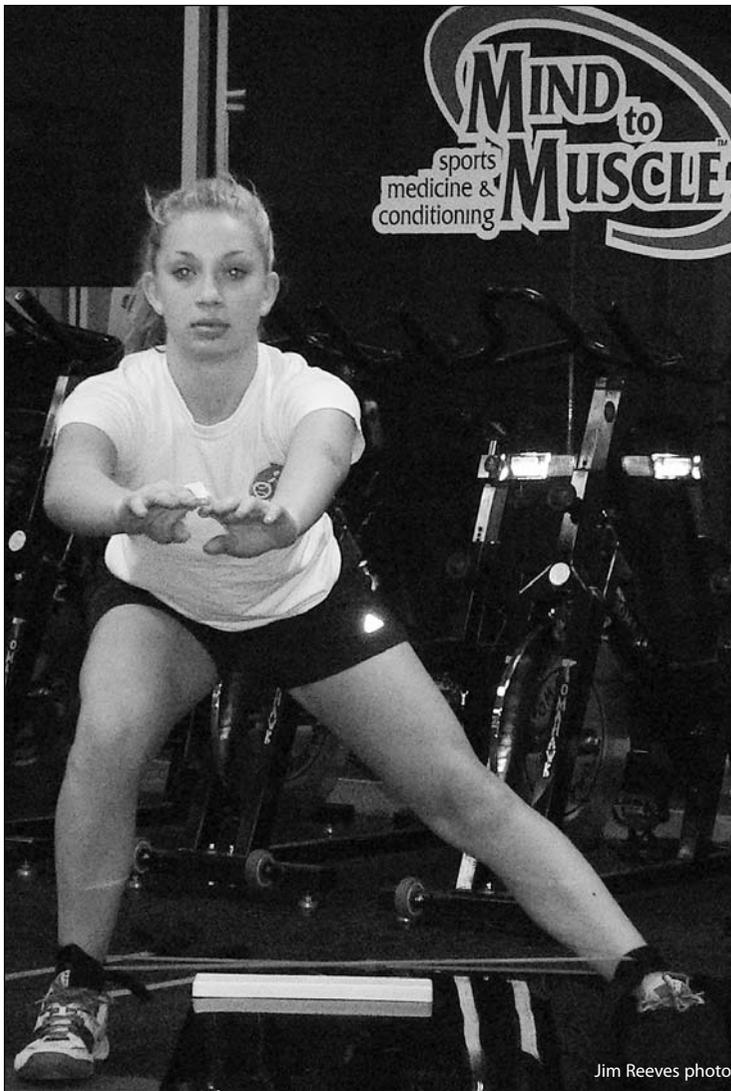
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Jim Reeves photo

Push the foot on the slide board out to the side maintaining the squat stance

Don't forget your stabilizers

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Athletes who emphasize basic strength exercises will develop an imbalance between the relative strength levels of their prime movers and stabilizer muscles.

As an athlete's overall strength level increases, there must be a concurrent increase in the ability of the stabilizing muscles to control and guide motion at the joint level. With this imbalance, the athlete's body will limit the contractile speed and force capacity of the prime movers, causing the athlete to plateau in their total strength gains.

Athletes in this situation will spend an enormous amount of time and energy making very small gains in their overall strength levels, a situation that is overcome with a training program that emphasizes developing the stabilizing muscles properly.

Unfortunately, further consequences to performing basic strength exercises are a change in an athlete's flexibility and centre of gravity.

Since many strength exercises do not emphasize full range of motion in all planes of movement at the joints of the hips and shoulders, an athlete can develop restrictions in their flexibility.

The loss of flexibility will hinder a player's movement efficiency, alter their posture, and change how the athlete moves and performs on the ice. As well, the tendency for many athletes is to perform workouts with the intention of improving their appearance.

Known by many as "the beach workout", the emphasis is on upper body exercises such as bench press and arm curls. The athlete will experience a change in their centre of gravity if too much tissue growth occurs in the upper body, allowing the athlete to be knocked off balance easier.

Athletes need to ensure their off-season program incorporates training to emphasize the development of

muscles which operate to stabilize their joints. Athletes can achieve these goals through exercises which isolate the contraction of these stabilizing muscles or through exercises whose body positioning requires stabilization.

Following are two exercises to isolate the functioning of the stabilizing muscles at either the hip or the shoulder.

TUBING RESISTED SINGLE LEG STRIDE

The exercise is performed with tubing wrapped around the ankles and one foot on a slippery surface, such as a slide board or tile floor.

Slowly push the foot on the slide board out to the side. Maintain the squat stance over top of the foot still on the floor as the leg on the slide board is straightened out and then returns back to the starting position. Do not lean to either side as you move in and out from the slide board edge or rise up out of the squat position.

TUBING SINGLE ARM ROW AND ROTATION

To perform this exercise, a piece of resistance tubing is wrapped around a pole, holding the ends in either hand. The arms are positioned straight out in front of the body in a standing position.

To perform the exercise, pull the upper portion of one arm back level with the body, so that the elbow is out to the side level with the shoulder. Then rotate the hand up and backwards until the hand will not rotate back any further.

The hand movement should be done without dropping the elbow down at all.

To complete the exercise, slowly rotate the hand forward and allow the arms to return to the start position in a slow and controlled motion, and then repeat with the other arm.

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