

“Training Frequency”

By: Mind to Muscle Sports Conditioning Centre

Looking at the development of young athletes from a conditioning coach’s perspective, it is important to target weaknesses within each player’s physical profile and use exercises that will help to correct their deficiencies. However, the art of constructing a balanced program requires a coach to understand the body’s process for adapting to the demands of the training exercises. Many times, athletes do not maximize their development because the frequency that each exercise is performed does not suit the intended goal of the conditioning program.

Frequency is a broad term used to classify many components used in designing an exercise program. Basically, it deals with how many times an exercise is performed within a workout, the time between sets within a workout and the specific recovery time between training sessions. One exercise can be used for several different purposes just by manipulating the frequency of it within the construction of a training program.

As we mentioned earlier, the number of repetitions of an exercise will determine the intent of the workout. Developing balance, stability, strength, power, strength endurance or power endurance requires changing the number of repetitions, especially if both single and double leg exercises are used. For developing leg and core strength, it is important to use 8 to 12 repetitions of an exercise. More repetitions than 15-20 without muscular fatigue means the athlete is training for local muscular endurance, which is not the intent of that exercise. Power can be trained with either repetition based sets of 6 to 12 lifts or jumps, or can be trained with timed sets, where the athlete executes a maximum number of repetitions within a given time period. Too many repetitions of an exercise may fatigue a particular system in the body. Balance and stability exercises require a high level of neuromuscular control, so it is important to keep the repetitions low, and concentrate on the athlete’s form in the exercise.

The time between sets will also affect the goal of the exercise. Power training, similar to balance and stability training, requires a high level of neuromuscular excitement and if the body is still fatigued from a previous set, the athlete will not be able to perform the exercise properly. Technique will break down and the athlete will not contract the muscles fast enough to improve their power production capabilities. Essentially, the athlete will become slower even though the intent of the exercise is to increase the speed and force of their muscular contraction.

The opposite situation, where very little rest time is allowed between sets also plays an extremely important role in developing as a hockey player. Training the anaerobic energy system requires the athlete to have an incomplete recovery period, so it is imperative that each set of the exercise is performed with a short recovery. Typical work-to-rest ratios here are 1:1 up to 1:6 and require a maximum intensity of effort by the athlete even though the body is in a state of fatigue.

Timing of different workouts within a weekly plan can affect the overall progression of the training program. Sequencing the workouts in the proper order must be done so that exercises high in neuromuscular demands are performed before those that do not require this system to be as rested. For example, exercises for speed, agility, power, balance and core training should be instituted before upper and lower body strength and anaerobic training are performed. It is equally important that adequate rest time between workouts be allowed so that the body can adapt and respond to the training stimulus that the workouts will provide. Inadequate recovery may result in an over trained state, and the athlete may experience a resultant detraining effect. Typical signs of overtraining are loss of energy, weight loss, sleep disturbances, elevated resting heart rate, injuries and reduced performance.