

“Anaerobic Conditioning”

By: Mind to Muscle Sports Conditioning Centre

Hockey players need to train at a higher intensity during dry land workouts than they face during game situations. Sprint intervals are recommended to improve and develop your anaerobic energy system. These are high speed, high intensity, and maximal effort sprints followed by a rest period.

An important factor in developing your anaerobic energy system is the work to rest ratio. In beginning your anaerobic training, use a 1:5 work:rest ratio. For example, sprint for 10 seconds, rest 50 seconds and continue to repeat. To make hockey specific and even position specific, a forward may use a 1:4, 1:3 or 1:2 work:rest ratio depending on the number of lines on the team. A defenceman may use a 1:1 work:rest ratio if cycling 4 defencemen during a game.

Within the anaerobic energy system, two subsystems are present. The first is the “Alactic System”, which supplies energy for up to 10 seconds. This energy is rapidly available and is used for short interval speed and agility drills. The second subsystem is the “Lactic Acid System”. This supplies energy for activities longer than 10 seconds and up to 3 minutes. It peaks during intense exercise at 30 to 60 seconds. Therefore, this subsystem is the primary supply of energy for shift length endurance in hockey.

We recommend varying your activities during anaerobic conditioning. For example, you may run, bike, swim, skip, in-line skate or use speed and agility drills to improve your conditioning. Also, we advise younger, developing players to reduce their work time and increase their rest time in order to train safely and effectively.

Anaerobic Alactic Workout:

- purpose: to improve acceleration, quick bursts and sprinting
- work time: 5 to 10 seconds
- intensity: maximal
- reps: 1x10 and progress to 2x10
- rest between sets: 2 minutes
- frequency: 1 to 2x per week
- work to rest ratio: 1 to 5

Anaerobic Lactic Workout:

- purpose: to improve shift length
- work time: 15 to 45 seconds
- intensity: maximal
- reps: 1x5 and progress to 1x12
- rest between sets: 3 minutes
- frequency: 2 to 3x per week on alternate days
- work to rest ratio: 1 to 5 and gradually progress to 1 to 1