



Exercise Prescription Policy

1. Policy Aims

This policy aims to provide a framework for coaches to ensure children at KJHC exercise and train at hockey sessions in a way that works within their physiological and emotional capabilities. The policy provides information intended to educate and guide coaches in their training prescription for children and provide background to parents on the club's approach.

2. Overview

All children over the age of 6 years should exercise for 30 minutes a day, most if not all days of the week at a moderate intensity. This provides children with health benefits and establishes a life-long commitment to exercise patterns. Adults working with children in physical settings need to understand children have specific and different needs to adults when exercising. This is because children have different physiological and emotional responses to exercise than adults. Where children are leading their own activities they are at significantly less risk than when structured exercise programmes are used. Therefore children playing at lunch time or climbing trees are less at risk for injury or harm than those involved in an adult-led exercise prescription such as specific sport training.

3. Policy Principles

KJHC coaching will provide:

1. an environment that is adequately supervised and safe for children to participate in sport;
2. "no play" rules unless children have suitable protective clothing and gear, including mouth guard/shin pads, or full goalie kit;
3. first aid kit to respond to any minor injuries at training or games;
4. training venues that are safe and free from harm;
5. training sessions that provide fundamental healthy exercise prescription including adequate hydration and warm up/warm down and stretching sets;
6. explicit support to ensure adequate hydration and cooling in hot conditions or for children with special medical conditions or who are wearing protective clothing;
7. appropriate training intensity and prescription following the information and guidelines in this policy, including ensuring no more than 30 minutes of moderate-high intensity (accumulative) is undertaken in a training session;

8. appropriate variations in training intensity and skill levels for each child, recognising the significant variation that can exist between children;
9. restricting core club hockey sessions to one practice and one game per week, to allow children to benefit from cross-training and other representative/development programmes;
10. positive language and emotional support with children bearing in mind that the club strives to foster a lifelong love of hockey.

4. Information about exercise prescription for children

Children's thermoregulation

Children's bodies are still developing and therefore they have limited ability to stabilise body temperature. Their metabolic rate is higher than that of adults and this results in excessive body heat production during exercise. While all children's thermoregulation needs to be monitored, children who are obese, hypo-hydrated, wear protective clothing, are malnourished, anorexic, and/or have cystic fibrosis, type I diabetes, a fever, gastroenteritis, or other medical conditions are all at additional risk for heat-related illness.

Suggested measures for coaches include making it compulsory to bring drink bottles to practice and games. Instruct hydration every 10-15 minutes and suggest the removal of layers of clothing to keep body temperature down. It may also be necessary to adjust workouts in hot weather to be conducted in the shade or with additional fluid and rest breaks. Special care should be taken for children wearing goalie gear, or any other type of body bracing that may make thermoregulation further compromised. Iced drink bottles for goalies is recommended, as are cold packs placed at the back of the neck at half time if required.

Social and Emotional Development

The value of rewards and inter-subject competitiveness differs between children and adults. Children's brains are still developing as are their value systems and emotional intelligence. Children will have varied views and approaches to competition which will be different to adults. Adults should work to support children in ways that align to their developing and evolving attitudes.

Coaches, managers and parents will guard against embarrassing children (e.g., selecting or excluding children), or decreasing their enjoyment of activity by testing or training with methods that make them feel uncomfortable or unsuccessful. Wherever possible children will be given opportunities to excel and experience valuable learning.

Coaches will consider that children may respond differently in a new environment which might include (a) the physical space (b) social structure (with peers, alone, or in a competitive environment); and (c) authority figure (coach or parent). Coaches will allow considerable time for children to adjust to new situations and consider that such environmental changes will generally be more difficult for children to adjust to than adults.

Children all process information differently and at different speeds. Some children will require additional processing time to listen, understand and respond to instruction. Coaches will recognise

that children who are struggling to follow coaching instructions may be assisted by utilising a variety of coaching techniques. Options could include repeating or rewording instructions, demonstrating activities, or showing methods via white boards or video.

Medical needs

Many of our children at KJHC have medical conditions or learning challenges such as dyslexia. Coaches will take note of any player with any special condition and adjust their coaching to suit that child's needs. Information on how to best support the child can be sought from the parent and from the committee.

The Female Athlete Triad

The Female Athlete Triad is a health concern for active women and girls who are driven to excel in sports. It involves three distinct and interrelated conditions: disordered eating (a range of poor nutritional behaviours), amenorrhea (irregular or absent menstrual periods) and osteoporosis (low bone mass and microarchitecture deterioration, which leads to weak bones and risk of fracture). Exercise alone does not put someone at risk for developing the Triad; however, an energy deficit, in which caloric intake doesn't match energy expenditure, is a risk factor. Research has found that girls who are most at risk are generally high achieving, hardworking perfectionists. Coaches will avoid discussions about body image and talk positively about nutrition with athletes, particularly females in our year 7/8 cohort. Coaches will not focus nor measure body fat or weight in any testing at KJHC. Coaches will not label or categorise children related to their body composition.

Encouraging life-long exercise patterns

All children are capable of exercising at a variety of intensities and durations, however most will prefer short-term intermittent activities that have a high recreational focus. Children have poor tolerance for highly anaerobic intense activity lasting 10-90 seconds such as sprints. Exercise and training should be fun so the child develops a positive life long association with exercise for their wellbeing.

Children at KJHC will be encouraged to engage in a range of physical activities to promote holistic physical and emotional development. Such an approach has found to be the most advantageous to young athletes. This approach could see coaches (especially in year 7/8) suggesting children swim, rock climb, or take up other fitness activities or events such as the Weetbix Triathlon to support their hockey fitness base. Research is clear that a variety of exercise options will best support the development of the neuro-muscular system. While some children may be motivated and inclined to participate in a running programme, it is not recommended as a regular exercise prescription for this age group.

Training Information and Guidelines

Children 6 to 17 years old will not be asked to perform sustained vigorous intensity exercise. Children should be able to converse throughout a workout or at least most of it. No more than 30 minutes (accumulative) of any training should be of moderate to high intensity fitness training.

Research has shown that intense aerobic conditioning does not increase fitness in children to the same extent as it does in adults. This means there is little benefit in focussing on activities such as sprints or high intensity training. Intensity of physical activity should be initiated by the child (free running) rather than externally such as on a treadmill. As children all have extremely different levels of fitness, coaches will allow children to work at their own pace and to focus on their own individual improvements.

It is acceptable for healthy children to perform health/fitness testing on occasions, despite children being pushed to their limits and having their pace controlled. The practice of using testing should be limited where possible.

Pre-pubescent children do not produce anabolic hormones and so any strength gains are made entirely through (mostly natural) development of their neuro-muscular systems only. Therefore structured strength training is not as helpful as play based physical activity for this age group. When strength activities are prescribed they should have high repetition (10-15reps). Children should only perform strengthening activities that are well supervised by adults who ensure correct posture and method. Strengthening exercises that use only body weight are best in this age group e.g. sit ups or press ups unless a qualified exercise practitioner is available to prescribe and monitor the workout.

Stretching should be encouraged and completed at every session. Stretches should be held for 10-30 seconds. Static stretching is the most beneficial in this age group.

Plyometrics refer to exercises that link strength with speed of movement to produce power and were first known simply as “jump training.” Plyometric training is a safe, beneficial and fun activity for children and adolescents provided that the program is properly designed and supervised. Plyometric exercises start with a rapid stretch of a muscle (eccentric phase) and are followed by a rapid shortening of the same muscle (concentric phase). With plyometric training, the nervous system is conditioned to react more quickly to the stretch-shortening cycle. This type of training enhances a child’s ability to increase speed of movement and improve power production. Regular participation in a plyometric training program may also help to strengthen bone and facilitate weight control. Further, plyometric training performed during the preseason may decrease the risk of sports-related injuries. This may be of particular benefit to young female athletes who appear to be at increased risk for knee injuries as compared to young male athletes.

KJHC website has a coaching section which includes session plans and information and resources for activities such as plyometric exercises.

Support

Coaches can seek assistance from the committee if they require support in developing any aspect of exercise prescription. A wide range of tools and information is provided to coaches on skills development training and training formats, available on our website under the coaching tab.

5. Authority and Review

Authorised by:	KJHC Committee
Date:	15 June 2015
Review date:	As required

6. Resources and References

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