

ATHLETE LOADING

GUIDANCE TO SUPPORT A PLAYER'S WEEKLY LOAD



ENGLAND
HOCKEY

The purpose of this document is to put the player at the centre when considering the development of an individual.

As part of that, considering the **load** on our young and aspiring hockey players is fundamental. There are many demands on young players such as hockey, other sports, academic commitments, travel and family commitments. It is important that players and their parents begin to understand and manage the load they individually experience in any one week and begin to learn how to plan their weekly and monthly schedule with their club; school; Talent Academy and England age group coaches, as well as their teachers at school to mitigate against overloading. **Overloading can lead to increased risk of injury and illness as well as negatively impacting a young players development, enjoyment, and their longevity in sport.**

These are guidelines and not hard rules - every player will be different given their physical training age, hockey history and academic capabilities alongside their aspirations within the game.

This document suggests an optimal weekly physical & hockey load. Whilst there will be some weeks where physical **load** may be heavier, there may be others where it is lighter. It is important to view a player's schedule as a whole and look into the future to avoid more than 2 "heavy weeks" in a row and ensure a "recovery week" within every 5-week block.

Physical and sport specific load should gradually build up over time for a young person, and as they begin to specialise in a single sport, they will need to develop their mental skills to help develop their physical and sport specific capabilities. Being an international athlete takes a lot of resilience and dedication. The word 'sacrifice' is often used but we would like to think it's an individual's choice to act to realise their goals and aspirations. Supporting a young player to develop these mental skills and how to manage their time and understand their body are key steps in being able to successfully manage the life-load they are under at any one time.

These guidelines therefore consider the full playing spectrum that we might see in the Talent System. Those at the start of the Talent Foundations segment and those at the upper end of the Talent Development segment, please see [pages 16-19 of the Talent System Framework](#).



HOW DO YOU KNOW WHICH CATEGORY AN INDIVIDUAL PLAYER RELATES TO?

TALENT FOUNDATIONS PLAYER

These players are playing in a fun, developmental and positive environment. Players are beginning to realise they are good at hockey, love playing and want to play as much as they can. Players may be involved with other sporting activities. They are likely to be playing hockey across a blend of county, club and school environments. They are likely to be accessing the game in 2-4 different environments.

TALENT DEVELOPMENT PLAYER

These players are playing in a challenging and supportive environment. Players know they are good at hockey and are determined to get better. Players are focused on connecting with performance and taking responsibility for their own progression. They may already be playing junior international hockey and/or are in a Talent Academy. They are following hockey as a main sport and therefore accessing training all year round. They could be accessing the game in as many as 5 different environments.

RECOMMENDED HOCKEY & PHYSICAL LOAD PER WEEK

TALENT FOUNDATIONS PLAYER

TALENT DEVELOPMENT PLAYER

COMPETITIVE HOCKEY

- 1 STRETCH MATCH
- 1 LEADERSHIP MATCH

- 1 STRETCH MATCH
- 1 LEADERSHIP MATCH

HOCKEY TRAINING

- 1 HOUR HIGH INTENSITY TRAINING
- 1 HOUR TECHNICAL TRAINING
- 2 HOURS MEDIUM INTENSITY TRAINING
- MAY ACCESS 30 MIN PERFORMANCE ANALYSIS [TEAM/INDIVIDUAL]

- 2 HOURS HIGH INTENSITY TRAINING
- 1 HOUR TECHNICAL TRAINING
- 3 HOURS MEDIUM INTENSITY TRAINING
- 1 - 2 HOUR PERFORMANCE ANALYSIS [TEAM/INDIVIDUAL]

STRENGTH & CONDITIONING

- 1 x SPEED SESSION [AS PART OF WARM UP]
- 1 x STRENGTH SESSION
- 1 x PREP SESSION
- 1 x LONG INTERVAL SESSION
- 1 x TOP UP INTERVAL SESSION [ADDED INTO OR END OF HOCKEY SESSION]

- 2 x SPEED SESSIONS [AS PART OF WARM UP]
- 1 x STRENGTH SESSION
- 4 - 6 x PREP SESSIONS [INJURY PREVENTION/ROBUSTNESS]
- 1 x LONG INTERVAL SESSION
- 2 x TOP UP INTERVAL SESSIONS [ADDED INTO OR END OF HOCKEY SESSION]

REST

- 2 x 24-HOUR PERIOD OF REST

- 2 x 24-HOUR PERIODS OF REST

DEFINITION OF TERMS

LOAD

We are often asked by coaches, parents and teachers what is the optimal load for a player. But what do we mean by load? Load for a young hockey player can come from many different environments and from many different areas of their life.

We will consider three types of load – **LIFE LOAD**, **HOCKEY LOAD** and **PHYSICAL LOAD**.

LIFE LOAD

All aspects of life which create a stress on the body. This could be academic as well as physical load. Consideration needs to be given to the different moments of the year that can cause excessive life load for example exam periods.

HOCKEY LOAD

Training and competition in all environments. Consideration needs to be given to frequency, intensity, and total time on a hockey field.

PHYSICAL LOAD

All training that involves physical demand on the body. Consideration needs to be given to frequency, intensity, and total time. This involves hockey and all other sports not just specific physical training time.

By managing their load, we are talking about how they utilise their time efficiently to consider all components of load which still allows them to progress as they wish. All environments – school, club and international need to be considerate of the individual and put the player at the heart of decisions. All aspects of load should be reassessed regularly as environments change and different times of the year present new challenges to an individual's load (for example exam periods).

RATE OF PERCEIVED EXERTION [RPE]

Perceived exertion is how hard a player feels like their body is working. It is based on the physical sensations a person experiences during physical activity, including increased heart rate, increased respiration or breathing rate and increased sweating and muscle fatigue.

RPE is marked out of 10 where 1 equates to minimal physical exertion, where a person could continue the physical activity all day. 5/10 equates to a progressive pace where a person can still hold a conversation. 10/10 equates to maximal physical exertion for example a maximal intensity sprint or the 16-pitch length aerobic capacity test commonly used within the England pathway.

[‘Understanding Rate of Perceived Exertion’ table on next page.](#)

UNDERSTANDING RATE OF PERCEIVED EXERTION

RPE	EFFORT TYPE	HOW DOES THIS FEEL?	EXAMPLE
0 - 1.5	ACTIVE RECOVERY	Easiest pace utilised during the warmup or cool down. Recovery between intervals or on days of active recovery. Takes focus to maintain this low intensity.	PREP SESSION
2.0 - 4.0	ENDURANCE	Comfortable pace that can be maintained for long periods. Fatigue will be low for up to a couple of hours at this pace. Increased breathing rate, but still comfortable.	TECHNICAL TRAINING SESSION
4.5 - 6.0	TEMPO	Pace can be maintained for an hour or longer, but will begin to feel moderately hard after 30-60 minutes. Steady, but fairly sustainable effort. Breathing hard, but still controlled.	CONDITIONING: LONG INTERVALS
6.5 - 8.0	THRESHOLD	Pace can be maintained for around an hour. Challenging, difficult and requires concentration to maintain effort. Breathing heavily, not as rhythmic.	HIGH SPEED RUNNING CONDITIONING: SHORT INTERVALS STRENGTH TRAINING
8.5+	MAX	Pace can be maintained for short intervals. Loud and obnoxious internal dialogue. Breathing extremely hard.	STRENGTH TRAINING MAXIMAL AEROBIC FITNESS TEST
9.0+	ANAEROBIC CAPACITY	Pace can only be maintained for short max and near max intervals. Self-preservation instincts kicking in. Out of breath. Stressful physiological sensations may last beyond the exercise.	REPEATED SPRINTS
10	SPRINT CAPACITY	Sprinting pace and shortest max intervals. Can feel easier if rested or impossibly difficult if tired. Stressful physiological sensations may last beyond the exercise.	16 PITCH LENGTHS TISSUE CONDITIONING TESTS

DEFINITION OF TERMS

HEAVY, NORMAL & RECOVERY WEEK

HEAVY WEEK

A heavy week is when the player has completed more than 8 sessions at an RPE of 7/10 or above (including other sports and any physically demanding exercise not just hockey).

NORMAL WEEK

A normal week is as detailed above for the recommended load and includes 2 × 24-hour rest periods. Rest periods can include prep sessions. (See rest period table examples at end of document for guidance.)

RECOVERY WEEK

A recovery week has a much lighter physical and hockey load and gives the body a chance to recover and make necessary adaptations. The prep sessions should still be completed in a recovery week. There should be at least one off-foot session in a week like cycling or swimming for active recovery. There is ideally only one match in a recovery week. The sessions to avoid in a rest week include speed sessions; long interval and top up sessions. There should be at least 3 × 24-hour rest periods in a recovery week. (Please see the '24 hour period of rest' [table at the end of the guidance](#) for clarification).

STRETCH & LEADERSHIP MATCH

STRETCH MATCH

A stretch match is a match played in an environment that challenges the player to perform at a higher level than their current playing ability. This could be an upper age group; or in an environment of senior training where their failure rate is purposely higher. This is likely to be a higher physical and cognitive load.

LEADERSHIP MATCH

A leadership match is a match played in an environment that the player excels within. They should be taking responsibility to lead others whether that's by role modelling, organising or vocally. They are playing with and against players that are similar in level and others that are less capable. They are physically, mentally and socially similar in level. Challenges are ones that they recognise and often already know how to deal with the situation. This is likely to be although not always a lower physical and cognitive load.

DEFINITION OF TERMS

TRAINING SESSIONS

HIGH INTENSITY TRAINING SESSION

High Intensity Training are sessions which have a [Rate of Perceived Exertion \(RPE\)](#) above 7 (Vigorous effort, can only speak in short sentences, becomes uncomfortable quickly, requires constant effort). For every 4-5 minutes of hard exertion, they will need 2-3 minutes of recovery. Players can be running at a high intensity or sprint over 30m distances within this session, which would classify it as a session that includes high speed metres. They could also be playing small/medium sided games (2v2-7v7) over smaller distances which results in less high-speed meters but more high intensity actions such as accelerations, decelerations and change of direction which are also intense in nature therefore a higher RPE.

Traditionally we see many school and club games for young players that do not mimic international game intensity. Players are often exposed to 60-70 minutes of medium-low intensity rather than shorter periods at higher intensity. It is important that players aspiring to play international hockey are exposed to higher intensity training for some of their sessions each week.

MEDIUM INTENSITY TRAINING SESSION

Medium Intensity training sessions are sessions which have a [RPE](#) between 5-6. They will involve either a lot of minutes at a similar pace or a few sets of high intensity with prolonged periods at lower intensity. High intensity actions may last for around 5-10m.

SPEED SESSION

A speed session can be completed as part of an extended warm up and includes maximal sprints with long recovery (1.5 mins minimum) for repeatable maximal efforts. This has a high physical load.

STRENGTH SESSION

A strength session is a specific session designed to improve muscle strength and range. Strength training should adopt a staged approach relative to the individual commencing with body weight exercises and gradually increasing in difficulty with free weightlifting being the end goal as a senior international. The technique is critical with young players and therefore regular feedback from a trained strength coach is ideal. This has a high physical load and a high cognitive load.

TECHNICAL TRAINING SESSION

Technical training are sessions which have a rate of [RPE](#) between 2-4. They focus on specific technical development for individuals or small groups of players. Players should rarely be out of breath. This is likely to be a low physical yet high cognitive load.

DEFINITION OF TERMS

TRAINING SESSIONS

PREP SESSION

A prep session affords time to carry out, simple mobility exercises, foam rolling and core strength exercises that ensure the players body is robust and can manage the daily load required to sustain progressively. This prep session can also include planned nutrition and hydration to ensure optimal fuelling and rehydration. This session takes time to embed as routine but is one of the most critical in learning to be an international player. This session has a low physical and low cognitive load.

LONG INTERVAL SESSION

A long interval session involves moderate intensity running over relatively long distances with minimal recovery. It should have an **RPE** of between 5-7/10 and feel challenging on the lungs and legs.

TOP UP INTERVAL SESSION

A top up interval session occurs during or at the end of a hockey session. It varies in distance of high-speed metres with minimal recovery and less repetitions. This type of session will have an **RPE** of between 7-8.

PERFORMANCE ANALYSIS SESSION

Performance analysis sessions aim to provide space to reflect on and review performance either as a team or as an individual. This can be undertaken using video replay.



DEFINITION OF TERMS

REST

COMPLETE REST DAY

A complete rest day as the table below shows is taking one whole day with no physically exerting sessions (including no school Physical Education lessons). It is important to recognise that any week should include 2 x 24 hours rest. 24 hours rest does not have to be taken as below it can be as the 24-hour period of rest suggests. A complete rest day can still include the [Prep Sessions](#).

	Before School	School Morning	Lunchtime	School Afternoon	After School Club	Evening
SUNDAY			CLUB MATCH			
MONDAY	COMPLETE DAY REST - Allows for longer than 24 hours from end of one session to start of next					
TUESDAY				LONG INTERVAL SESSION	AFTERSCHOOL HOCKEY CLUB	CLUB TRAINING

24-HOUR PERIOD OF REST

A 24-hour rest period as the table below shows is taking a whole 24-hour rest. So, from the end of training on one day a player does not do anything until a whole 24 hours later. In the example below the lunch time hockey club finishes at 1pm so the long interval session cannot be undertaken until after 1pm the next day to ensure 24 hours of rest. However, during this period can still include the [Prep Sessions](#).

	Before School	School Morning	Lunchtime	School Afternoon	After School Club	Evening
SUNDAY			LUNCHTIME HOCKEY CLUB	24-HOUR REST PERIOD		
MONDAY	24-HOUR REST PERIOD			LONG INTERVAL SESSION		