ICE HOCKEY TRAINING SEASONS

The calendar year of hockey players is divided into three parts, the off-season, the pre-season and the in-season.

The length of each season varies, depending on the length of the in-season (game schedule), length of the off-season (including a full cessation from team training) and the length of the pre-season, determined by the coach. Throughout these different seasons, the off-ice training is centred around strength training and continuous physical, mental and personal development of the player.

The in-season, also called competitive season, is followed by the post-season, a resting period for players as well as coaches to re-charge and gain strength for the next season. The length of the post-season depends on the length of the previous in-season and the starting date of the upcoming season.

OFF-SEASON

During the off-season, the training for players should consist of flexibility, mobility, core strength, stability, speed, strength and conditioning training. Through the execution of a well-planned off-season training program, players will improve in all above-mentioned aspects, as well as in reducing the risk of injuries during the following season.

Every exercise should be performed with proper technique before adding additional weight loads. The training program should also introduce new exercises and techniques to the players, that become part of the training program during the pre- and in-season training.

Each training session during the off-season should include the following components: warm-up, core activation and control, coordination, mobility, resistance training, and a conditioning part followed by a cool-down.

OFF-SEASON FOR U10 / BEGINNER

The IIHF PDG recommends that players in the Beginner stage (roughly U10) will participate in different sports during the off-season. For players in this developmental stage, it is important to participate in multiple sports during the year to develop a wide base of Fundamental Movement Skills (FMS). Moreover, free play and learning to use different equipment, build the foundation for physical literacy and develop skills in a variety of different environments.

ICE HOCKEY TRAINING SEASONS

It is recommended that players are active for at least 2 hours every day, and that 1 h should be spent in vigorous physical activity. Weekly accumulation of physical activity should be between 18 to 20 hours.

OFF-SEASON BEGINNER/U10 / START STAGE	
EXAMPLE WEEK for year round training	
Monday	Warm-up 15–30 min, ice training 45–60 min, cool-down 15–30 min
Tuesday	Warm-up 15–30 min, ice training 45–60 min, cool-down 15–30 min
Wednesday	Play day
Thursday	2nd Sport
Friday	3rd Sport
Saturday	Play day / during the season cross-ice games / monthly tournament
Sunday	2nd or 3rd Sport or Play day

7–8 year-old players should primarily focus their training on fundamental movement skill (FMS), mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and sport specific skills.

9–10 year-old players should have their training emphasis on sport specific skills, mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and fundamental movement skill.

Mobility and stretching techniques should be taught at this point. When stretching during off-ice warm-ups, emphasize short, active stretches, which also challenge balance. If mobility training is conducted separately, do longer stretches and teach players how and where in the body the stretches should be felt.

Running drills for coordination should be blended into the warm-ups and off-ice training sessions should always include at least one coordination drill. Bodyweight movements for body control should be completed during warm-up and cool down. Core training should be completed in a varied and safe way throughout the season.

OFF-SEASON FOR INTERMEDIATE (ROUGHLY U14)

At this stage, the length of the off-season can last anywhere between 4–7 months. U14 players should be multisport athletes, which supports the development of their overall athleticism, development of sport specific skills and their conditioning. During the off-season the players should participate in other sports such as, e.g. soccer, volleyball, basketball, badminton, football, rugby, parcour, martial arts, cycling, swimming, gymnastics, floorball and other sports. Total activity time per week should be between 18 and 20 hours. A minimum of 2 hours of physical activity per day is recommended to support normal growth, physical development and the development of general health benefits of players.

In case players participate in an instructed off-season training program, the players' development stage and skill levels should be assessed to create individualized training plans targeting the areas in need of development. Following the assessment, players can be divided into small groups of 5–8 players with the training focus on the development areas.

The training-focus for players aged 11 to 13 should be on developing strength, power, speed, agility, and sport-specific skills (SSS), with a reduced focus on hypertrophy, mobility, fundamental movement skills (FMS), endurance, and metabolic conditioning. The focus should also be on maintaining mobility, training consistency and independency.

The training-focus for players aged 14 should be on the development of hypertrophy, sport specific skill, mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and fundamental movement skills.

OFF-SEASON U14 / INTERMEDIATE	
EXAMPLE WEEK for players before growth spurt	
Monday	Skill training, speed, hip control, core training
Tuesday	Balance, plyometrics, strength endurance
Wednesday	Prehab & Recovery: Aerobic training, mobility, hip control, core training
Thursday	2nd Sport
Friday	Weightlifting techniques, plyometrics, bodyweight muscular endurance circuit training with focus on hips and core
Saturday	Light physical activity / rest day / meeting friends / leisure activities
Sunday	3rd sport

OFF-SEASON U14 / INTERMEDIATE	
EXAMPLE WEEK for players after growth spurt	
Monday	Skill training, lower body strength-speed, plyometrics
Tuesday	Upper body hypertrophy/strength-speed, hip control, core training
Wednesday	Prehab & Recovery: Aerobic training, mobility, hip control, core training
Thursday	2nd Sport
Friday	Hip control, core training, whole body speed endurance (with and without lactates)
Saturday	Rest day / light physical activity / meeting friends / leisure activities (optional independent non-structured light physical activity)
Sunday	3rd sport

NOTE: Consideration on each player`s bio-psycho-social development stage and possible growth spurts when individualizing training programs.

OFF-SEASON FOR U18 / ADVANCED

The off-season for advanced (roughly U18) hockey players should focus on the development of the following physical qualities at U15 and U16: hypertrophy, sport specific skills, mobility, strength, power, speed and agility. Less emphasis should be placed on endurance and metabolic conditioning as well as on fundamental movement skills. At U17 and U18 emphasis should shift to include endurance and metabolic conditioning as well as all other qualities listed for U15 and U16. The amount of training per player in the off-season should depend on the level the player is playing at and is targeting for. Players playing recreational hockey should also participate in other sports during the off-season. On the other hand players targeting to play at the performance level or trying to reach the international level should focus their time and effort on training ice hockey skill development during the off-season. The amount of training hours per week should be between 15 to 20.

During the off-season, the training program for players should focus on the development of strength, power and conditioning to cope with the demands of ice hockey. The off-season program should consist of a series of 3–4 week long phases, with each phase focusing on the development of a different physical quality. Each following phase should build on the gains and developments made in the previous phase, by increasing the complexity, demand on the central nervous system, training volume, repetitions and sets.

OFF-SEASON U18 / ADVANCED	
EXAMPLE WEEK. This is a day-by-day split, which shows how upper and lower body training can be divided to give enough recovery for muscles and central nervous system between training sessions.	
Monday	Upper body strength/speed, core & hips
Tuesday	Lower body strength, skill + speed endurance (without lactates)
Wednesday	Prehab & Recovery: Mobility, hip control, core training
Thursday	Upper body strength/speed + light aerobic training
Friday	Lower body strength, skill + speed endurance (with and without lactates)
Saturday	Rest day (optional independent non-structured light physical activity)
Sunday	Rest day / Skill training + aerobic training

NOTE: Consideration on each player`s bio-psycho-social development stage when individualizing training programs.

PRE-SEASON

When the pre-season starts, players join their teammates to practice and take part in the strength & conditioning program as a team.

The purpose of the pre-season training is to bridge the gap between the off-season and in-season training and to get the players prepared for the requirements of the regular season. Compared to the off-season, the intensity and total training volume increases due to an increased amount of off-ice and on-ice sessions.

A typical pre-season lasts usually between three to six weeks most of the time starting in early August but maybe as late as end of September. This is due to local and regional differences, ice availability and length of the actual in-season. When the pre-season ends, the off-ice training volume and intensity is reduced because the number of on-ice practices and games increases.

ON FOR U10 / BEGINNER

Pre-season training programs for U10 players should not differ from the normal year-round program. The weekly training schedule during the pre-season for U10 should be similar to the

off-season weekly training schedule. The IIHF PDG recommends that players in U10 should participate year round in several sports.

7–8 year-old players should primarily focus their training on fundamental movement skills (FMS), mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and sport specific skills. The players should participate in other sports during the year as well. (see off-season weekly training program example)

9–10 year-old players should have their training emphasis on sport specific skills, mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and fundamental movement skills. The players should participate in other sports during the year as well. (see off-season weekly training program example)

PRE-SEASON FOR U14 / INTERMEDIATE

During the pre-season for the intermediate stage (roughly U14), training should focus more on ice hockey. Increased amounts of on-ice training, tournaments and exhibition games prepare the players for the in-season and the increased amount of anaerobic work. Training volume is increased and should include aerobic training in warm-ups and cool-downs to balance out the overall load from the on-ice work. The strength training volume can be reduced to avoid injuries due to the increased on-ice training. Nevertheless, players should still participate in 1–2 sports outside of ice hockey to continuously develop their overall athleticism and sport-skills.

Mobility work should be a significant part of the weekly training program to help players recover better and to avoid injuries.

PRE-SEASON U14 / INTERMEDIATE	
EXAMPLE WEEK for pre-season	
Monday	Warm-up + coordination drills 20–40 min, on-ice training 45–60 min, cool-down 15–30 min
Tuesday	Warm-up 20–40 min + speed drills / plyometrics, on-ice training 45–60 min, cool-down 15–30 min
Wednesday	Rest (independent mobility training 20–40 min)
Thursday	2nd Sport
Friday	Warm-up 20–40 min, on-ice training 45–60 min, cool-down 15–30 min
Saturday	Game day / Rest day / light physical activities
Sunday	3rd Sport

PRE-SEASON FOR U18 / ADVANCED

When compared to the off-season training, the pre-season training volume should be higher due to the increased amount of off-ice and on-ice training sessions.

PRE-SEASON U18 / ADVANCED	
EXAMPLE WEEK	
Monday	Power, strength circuit training (bodyweight / with barbell)
Tuesday	Rest
Wednesday	Strength circuit training (bodyweight / with weight plate)
Thursday	45–75 min Aerobic training, functional mobility, battles & plays, hip & core control (recovery & prehab session)
Friday	Rest / Strength circuit training / high-pace, high volume strength training
Saturday	Game day
Sunday	45–75 min independently aerobic training, mobility (recovery & prehab session)

IN-SEASON

IN-SEASON FOR BEGINNER AND ROUGHLY U10

In-season training programs for U10 players should not necessarily differ from normal year-round programming. They can follow the same basic weekly program principles, which they have been following during the summer as well. Focus for players in the beginner stage should be on the development of FMS, balance, mobility, agility, and on the participation in 2–3 other sports besides ice hockey.

7–8 year-old players should primarily focus their training on fundamental movement skills (FMS), mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and sport specific skills.

9–10 year-old players should have their training emphasis on sport specific skills, mobility, strength, power, speed and agility, with a reduced focus on endurance & metabolic conditioning and fundamental movement skills.

IN-SEASON FOR INTERMEDIATE (ROUGHLY U14)

During the in-season players should continue with aerobic training, however, in general the off-ice session length should be shorter than during off-season and pre-season. Strength training should include mostly bodyweight exercises and different types of skating jumps, leaps and lunges. The focus should be on good technique instead of on training volume. Mobility training should be a significant part of the weekly program to help players recover and avoid injuries. Players should also still participate in 1–2 other sports during the week to balance the ice hockey training.

IN-SEASON U14 / INTERMEDIATE	
EXAMPLE WEEK for players before growth spurt	
Monday	A) Rest, if match on previous Sunday / B) lower body speed-strength, plyometrics
Tuesday	Skill training, balance, strength endurance, on-ice training
Wednesday	Skill training, hip control, core training, mobility, on-ice training
Thursday	Games & plays, speed, plyometrics / 2nd sport
Friday	Agility, movement control, body weight muscular endurance circuit training, on-ice training
Saturday	Game day
Sunday	A) Game day / B) Rest / 3rd sport

IN-SEASON U14 / INTERMEDIATE	
EXAMPLE WEEK for players before after spurt	
Monday	A) Rest, if match on previous Sunday / B) lower body speed-strength, plyometrics / 2nd sport
Tuesday	A) Skill training, lower body speed-strength, plyometrics / B) mobility, hip control, core training – on-ice training
Wednesday	Skill training, upper body hypertrophy, hip control, core training, lower body agility (3rd sport)
Thursday	Aerobic training, mobility, games & plays, skill training (recovery & prehab session) – on-ice training
Friday	Whole body short & fresh power training, speed – on-ice training
Saturday	Game day
Sunday	A) Game day / B) Rest / 2nd or 3rd sport

Speed training should be part of the training during the whole season. Warm-ups should include short sprints and reactions drills. Other speed training session should include favour jumps, bounces, hops ,running sprints, upper body and core speed, as well as power drills. Agility and coordination should be part of every warm-up.

Bodyweight training should include balance- and strength movements, and hip movement control drills. Hockey players need strong supportive muscles in their upper back and around the shoulder joints to prevent injuries and for better stick handling.

Strength training should include bodyweight exercises, unilateral exercises such as lunges and single leg skating movements, bodyweight squats (also with barbell if the player is ready) and strength endurance exercises. Correct muscle activation for skating is important so players need to learn the correct muscle activation progression: 1. deep abdominal muscles 2. hip abductors & extensors (glutes and Tensor fascia latae) 3. Quadriceps femoris (thigh muscles on the front side)

Endurance training should include circuit training, circuit training runs and sprints, intervals and steady state cycling and/or running.

IN-SEASON FOR ADVANCED (ROUGHLY U18)

At the start of the in-season, training volumes can be higher (number of sets, reps and exercises) because players have plenty of energy and are able to recover from a higher training load. Resistance training should include multi-joint exercises such as pull-ups, barbell squats, lunges and similar, as well as unilateral exercises such as split squats.

Towards the middle of the season, the energy levels of players decrease so at this point it is beneficial to decrease the number of sets, reps and exercises.

During the in-season, the strength levels of the players should be maintained compared to their strength levels at the end of the pre-season or even increased.

Towards the end of the in-season, off-ice training sessions should decrease in length, and should focus on speed, power and bodyweight exercises. The number of multi-joint exercises should be reduced to 3–6 exercises per training session.

At this point, focus should be on the full recovery of each player following each game and training.

Strength training is part of a hockey players training program during the entire year, in off-, pre- and in-season.

Due to a full game schedule in the in-season it is often challenging to schedule in-season strength and conditioning sessions. The focus of the in-season strength and conditioning sessions should be on the physical qualities which the players need on the ice for optimal ice hockey performance but which are not directly developed during on ice training and games.

To schedule a strength and conditioning session after the game is not ideal but at times might be the only possibility. An after game session is still a better option than not to train at all, especially for players who were only active for a few shifts during the game. These post-game training sessions should be kept to a maximum of 60 minutes and should only focus on the physical qualities, which need development.

Following an injury, the rehabilitation process of a player starts after the evaluation and recommendations of a medical doctor. The player then meets with a physical therapist and a strength and conditioning coach and who create a training program, which focuses on the rehabilitation of the injured player.

IN-SEASON U18 / ADVANCED	
EXAMPLE WEEK for performance hockey players	
Monday	Whole body strength with high reps – on-ice practice
Tuesday	Aerobic training, functional mobility (optional recovery & prehab session) – on-ice practice
Wednesday	Whole body power + strength with low reps – on-ice practice
Thursday	Aerobic training, functional mobility, battles & plays, hip & core control (recovery & prehab session)
Friday	Game day
Saturday	Game day
Sunday	Rest

The training schedule for recreational hockey players in the advanced stage should similar to in-season training schedule of the intermediate stage. Including participation in other sports and alternative physical activities.