

The Benefits of Physical Training on Mental Preparation

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Coach

Background

◆ Athletic career:

- Track & Field, hockey, soccer, Cross Country skiing

◆ Education:

- Doctor of Medicine, Master of Sports Science (Biomechanics and discipline of coaching)
- Sports Medicine studies in Russia

◆ Experience:

- Track & Field National team coach
- Kalpa-Hockey 2000-2005
- Oulu Kärpät 2004 –
- Finnish Ice Hockey Federation Lecturer & Men's National Team Doctor and Strength and Conditioning Coach

The Lecture Content

- ◆ Testing, Enhancing Self-Confidence
- ◆ Perceived Physical Conditioning
- ◆ Personal Training and Guidance
- ◆ Convincing The Benefits of Conditioning and Training Follow-Up
- ◆ Coach's Perspectives on Physical Conditioning
- ◆ Summer Training
- ◆ Winter Training / Training In Season
- ◆ Periodisation of Training
- ◆ Games and preparing off-ice exercises

Testing and Self-Confidence

- ◆ Testing physical qualities in hockey:
 - Endurance
 - Speed
 - Speed Endurance
 - Strength
 - Mobility
 - Motor Skill / Balance

Testing and Self-Confidence

- ◆ Are the tests sport specific ? (Do they test the qualities required in the sport ?)
 - Are they copied from other sports ?
 - Do you train for the tests ? – Easy way to convince the methods of training
- ◆ TESTS NEED TO BE SIMPLE AND ABLE TO BE REPEATED ANY TIME
 - Elimination of uncertainty any time you want
- ◆ Does player believe in them ?
 - Explain, why
- ◆ Can testing provide direction for training ?
 - Explanations and justifications for the players

Testing and Self-Confidence

◆ Feedback:

- Personal
- Written form and conversations
- Ask player's comments
- Guidance of training

Perceived Physical Conditioning

◆ Athlete should learn how to sense his or her own body and its signs

- Teach gradually
- Fatigue and muscle stiffness
 - Why sometimes necessary ?
 - When does it go over ?

◆ Sensitivity

- Too long maintenance can be deceitful
- Many athletes seek for the feeling all the time

◆ Feeling of being Strong and Powerful

- ◆ When is there a need for independent strength and power training ?

Perceived Physical Conditioning

◆ Athlete should learn to know his or her own weaknesses

- Discuss
- Observations and examples from the course of the season

◆ Eye and Ear of the coach

- Learn to sense sensitivity, stiffness, and fatigue in doing
- Ask players' feelings
- Seek for the connection between doing, seeing, and perception

Perceived Physical Conditioning

- ◆ Communication is crucial during the season
 - When is power needed ?
 - When is speed needed ?
 - When is recuperative training needed ?
 -

Personal Training and Guidance

- ◆ Team is comprised of individuals
- ◆ Find out the strengths and weaknesses:
 - Questionnaire form
 - Player's experiences and hopes
 - Tests
 - Test feedback
 - Meeting
 - Follow-Up

Personal Training and Guidance

◆ Estimation of body composition

- In positive spirit

◆ Nutritional intake – Daily Diet

- Majority of the players find it unpleasant and unfamiliar
- Nutrition Diary
- Personal written and oral feedback
 - Be a change catalyst
- Follow-Up

Personal Training and Guidance

- ◆ Consider the level of development and age
- ◆ Too quick stress increase leads to burn out and drop out
- ◆ Explain this to players, agents, and parents !!

Convincing The Benefits of Conditioning and Training Follow-Up

◆ In addition to learning how to play and developing game sense, a player should learn other aspects of training

◆ Explain and teach:

- Why are we doing this this way ?
- What are the effects ?
- What type of difficulties can be on the way ?

Convincing The Benefits of Conditioning and Training Follow-Up

- ◆ Summaries during the course of the year
 - After Spring
 - After Summer
 - During the season
- ◆ It is advisable to keep record on the quantities of training
 - Finnish player believes in quantity
 - Developing impression, "We've worked hard" – bad day booster !!
 - In over time situations, emphasizing the awareness of the amount of work done can enhance self-confidence

Coach's Perspectives on Physical Conditioning

- ◆ Coach often overvalues a player who vigorously works out
- ◆ A lot is forgiven if a player diligently works out.
- ◆ Summer training can be used as a way to pressure / motivate players
- ◆ Good or Bad ???

Summer Training

◆ Hard work is important

- = Determines
- Quantity may even compensate quality
- If everything is done right according to the laws of physiology, a player may experience the workouts as "too easy"
 - For instance, speed training, staring at the heart rate, constant control of rest periods etc.

Summer Training

- ◆ Player plans the framework of his or her own personal work out program
- ◆ After a player returns his or her plan, he or she will go through it with the coach
- ◆ The coach plans the content inside the framework
- ◆ Way to make a player committed to the workout program
- ◆ A player develops feeling that he or she has contributed to the workout program
 - Reduction of weaknesses
 - Strengths become stronger

Summer Training

- ◆ Team Workout Program + Individual Workout Program
- Big Physical Differences
- Executing completely personal workout program will improve physical qualities of the players, but it may have a negative effect on team spirit.

Summer Training

◆ Personal workouts vs whole team workouts

- Aerobic conditioning: jogs individually + lots of games together
- Strength: Better in small groups of same strength level than alone
- Speed: best in pairs or in small groups
- Speed endurance: in small groups + the whole team together = GOOD ATMOSPHERE

One Week Workout Rhythm

◆ Mo	Muscle Nervous System
◆ Tu	Muscle Strength
◆ We	Aerobic Energy System
◆ Thu	Muscle Strength
◆ Fri	Muscle Endurance and lactic Energy System
◆ Sa	Recovery / Rest
◆ Su	Recovery / Rest

Training Physical Conditioning In Season

◆ Multi-Year Development

- In juniors, U-20

◆ Maintenance of the training effects

- At the top elite level

◆ Clear plan important

- Stay the course of the original plan
- **ELIMINATION OF GOING THROUGH EMOTIONS !!!**

Training Physical Conditioning In Season

- ◆ So called "National Team games breaks" require special attention
 - ◆ Practice or rest ?
 - ◆ Clear plan helps
 - ◆ It doesn't help to try to fix past mistakes in 1-2 weeks
 - ◆ Different and versatile practices
 - ◆ Break away from routines

Training Physical Conditioning In Season

- ◆ Physical training almost every day
 - ◆ Crucial for further development
 - ◆ Quantity stays large enough
 - ◆ Possible to lighten when needed
 - ◆ Must support training on the ice and prepare for it
 - ◆ Consider the total stress of games and traveling

On Ice Physical Conditioning Training

◆ Skills Session

- ◆ Aerobic + balance / sense of rhythm before the ice
- ◆ Speed strength after the ice

◆ Battle Session

- ◆ Muscle conditioning, strength, and wrestling etc. before the ice
- ◆ Recuperative after the ice

◆ Speed Session

- ◆ Aerobic + short speed / bounces before the ice
- ◆ Max strength after the ice

Training Physical Conditioning In Season

- ◆ Week's each workout is different from each other
 - ◆ There are different ways to accomplish the same physiological effect
- ◆ Plan many different types of workout "banks" which can be rotated throughout the season
 - ◆ I use 40 different practice banks
 - ◆ Same workout is repeated every 2 – 3 weeks

Sample Week

◆ Mo

Before: PREPARATORY 1

After: STRENGTH 1

◆ Tu

Before: PREPARATORY 2

After: RECUPERATIVE 1

◆ We

GAME DAY - OWN PREPARATORY

◆ Thu

Before: RECUPERATIVE 2

After: STRENGTH 2

◆ Fri

Before: PREPARATORY 2

After: RECUPERATIVE 3

◆ Sa

GAME DAY – OWN PREPARATORY

◆ Su

Rest

Sessions

Preparatory 1

- ◆ Running 5 laps around with gradually increasing speed
- ◆ Sailor's wrestle 2 x 30 sec. + 3 x 15 sec.
- ◆ Hurdle Walk 10 hurdles + muscle conditioning
 - Walk from the middle + 15 abs
 - Walk from the middle + 15 back
 - Walk from the middle + 15 squats
 - Jumps with small bounce between each jump from the middle + 15 push ups
 - Sideways jumps from the middle + 15 abs
 - Sideways jumps from the middle + 15 back
- ◆ Stretch 5 min
- ◆ 5-7 x 10 m reaction sprints from different positions

Preparatory 2

- ◆ Jogging 3 laps around with gradually increasing speed
- ◆ Coordination
 - High Knee Run 2 x 30 m
 - Butt Kicks 2 x 30 m
 - High Knee Run combined with opposite direction arm circles 2 x 30 m
 - Stretch 5 min
 - Bounces + Muscle Conditioning Circle (3 sets)
 - ◆ Alternate leg bounce (80%) 30m + abs 15 + walk
 - ◆ Backwards bounce 30m + back 15 reps + walk
 - ◆ Skater Bounce (80%) 30m + abs 15 reps + walk
 - ◆ Alternate One legged jumps (80%) 30m + 15 push ups + walk

Sessions

◆ *Strength 1*

- Aerobic warm-up 15 min.
- Stretch
- One leg leg press
- Following the set, 4 x explosive one leg jump
- Clean + Front press
4x6x60-75%
- Alternate Grip Barbell Rotation
3 x 20 x 20 kg
- Abs + back 3 x 15 x 10 kg

◆ *Strength 2*

- 2 Upper Body "Body Building" exercises (Free Choice)
- 3 sets with 6-12 reps
- Abs 3 x 20 x 5-10 kg
- Back 3 x 20 x 5-10 kg

Sessions

◆ *Recuperative 1*

- Jog/Bike - Independently
- HR- zone (120-140 bpm) 15min
- Abs. 150 reps + back 150 reps
- Strength exercises (Free Choice)
(Lower body & Upper Body)
 - 3 exercises
 - 3 sets
 - 6-12 reps
 - Light weight (metabolic waste transfer)

◆ *Recuperative 2*

- Jog 2 laps around the rink,
(HR 120-130 bpm)
- Run 1 lap around the rink,
(HR 140-150 bpm)
- Jog 2 laps around the rink,
(HR 120-130 bpm)
- Run 1 lap around the rink
(HR 140-150 bpm)
- Jog 2 laps around the rink,
(HR 120-130 bpm)
- Run 1 lap around the rink
(HR 140-150 bpm)
- 5 x 10 steps in stairs with quick
explosive step / 1 min. rest

Periodisation of Training

- ◆ Clear Plan
- ◆ Easy periods in every 4-6 weeks
- ◆ Lighten the load 3-5 weeks before important games
- ◆ Lightening cannot be too radical but considerable
 - Player should be able to feel the difference
 - Too radical change increases risk for injuries and sickness

Unloading

- ◆ 10-15% / a week
- ◆ Routines change
- ◆ More opportunities to players for free choice
 - ◆ 3 – 4 practice options from which to choose from
 - ◆ Increase workouts done in small groups

Traveling Considerations

- ◆ Over 3-4 hour bus ride will have negative effects on:
 - ◆ Balance
 - ◆ Reaction
 - ◆ Speed
 - ◆ Concentration
- ◆ Effects may last from 5 to 6 hours

Traveling Consideration

◆ Meals

- ◆ Don't lose or change the normal rhythm
- ◆ Bring snacks along
- ◆ Plan with care

◆ Sleep Rhythm

- ◆ Don't lose or change the normal rhythm
- ◆ Scheduling should be organized to serve the needs of the athlete

Game Preparing Physical Training

◆ The nature of the game is predetermined

1. Skill / Speed

- ◆ Physical training speed / agility

2. Physical

- ◆ Wrestling – The Day before – Pre-game (morning) practice
- ◆ Strength / Power training – 2 days before

3. Routine / Hard week – many games a week

- ◆ Aerobic / Recovery
- ◆ Free Choice

4. Play Offs

- ◆ Add opportunity for free choice

Demo

- ◆ Demonstration of three different types of practices, each with its own theme:
- ◆ A short debrief will follow each practice
- ◆ Heart rate monitor control
 1. Speed appr. 15-20 min.
 2. Physical appr. 15-20 min.
 3. Recovery appr. 15-20 min.