# IRB Strength and Conditioning Level 1 Course

**Location – ??????**

**Presenters - ?????**

# Introduction

**This course is designed to provide beginner Strength and Conditioning coaches with a basic knowledge and understanding and a foundation of practical skills. This in turn will facilitate coaches to prepare players more thoroughly to play Rugby Union. This course links directly to the physical conditioning element of the IRB 'Rugby Ready' programme.**

The IRB Strength and Conditioning pathway has been designed by the IRB in conjunction with Setanta College. The pathway is as follows:

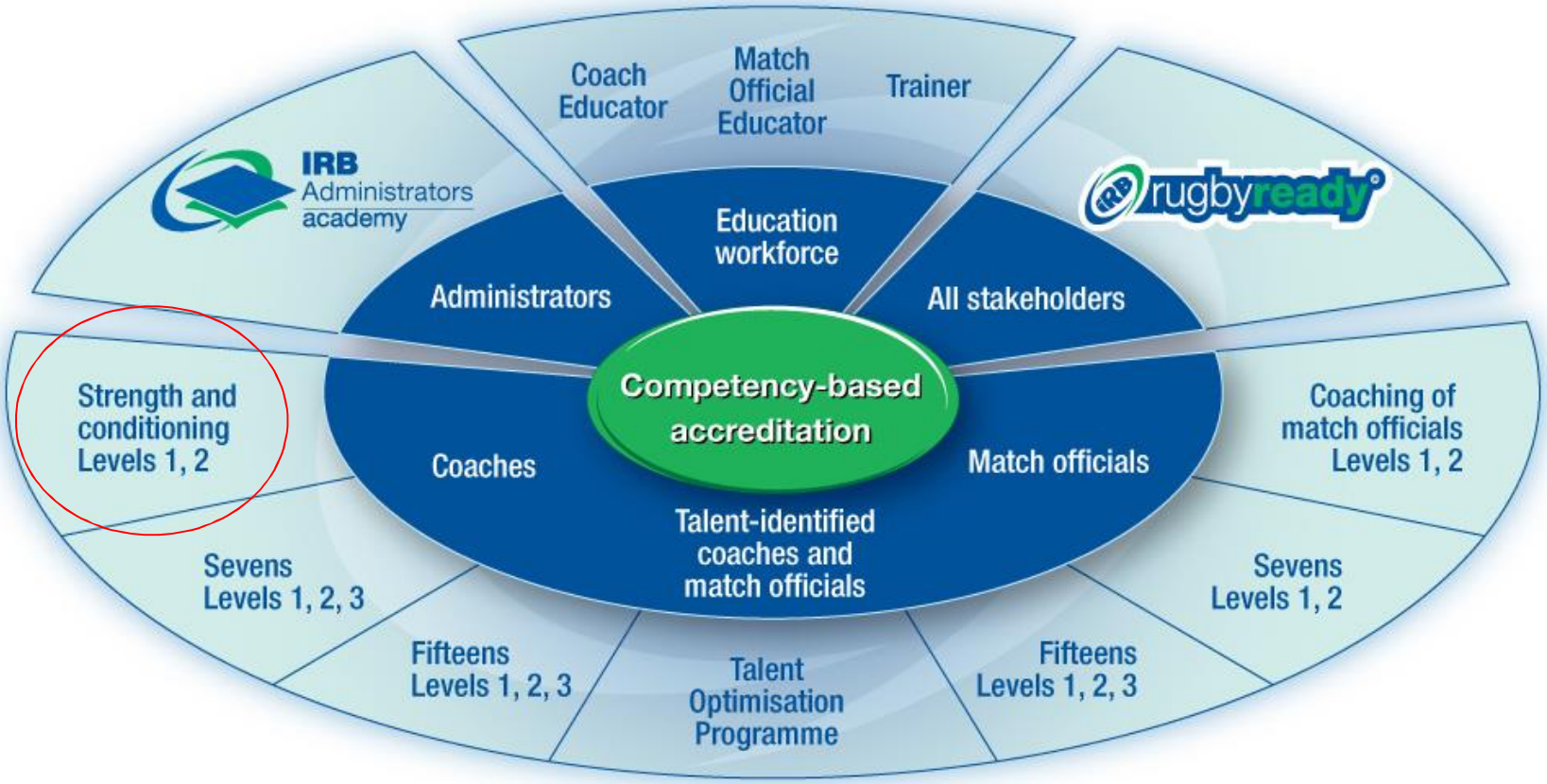
- (First Stage) ï Rugby Ready
- (Second Stage) ï IRB Strength and Conditioning Level 1
- (Third Stage) ï IRB Strength and Conditioning Level 2

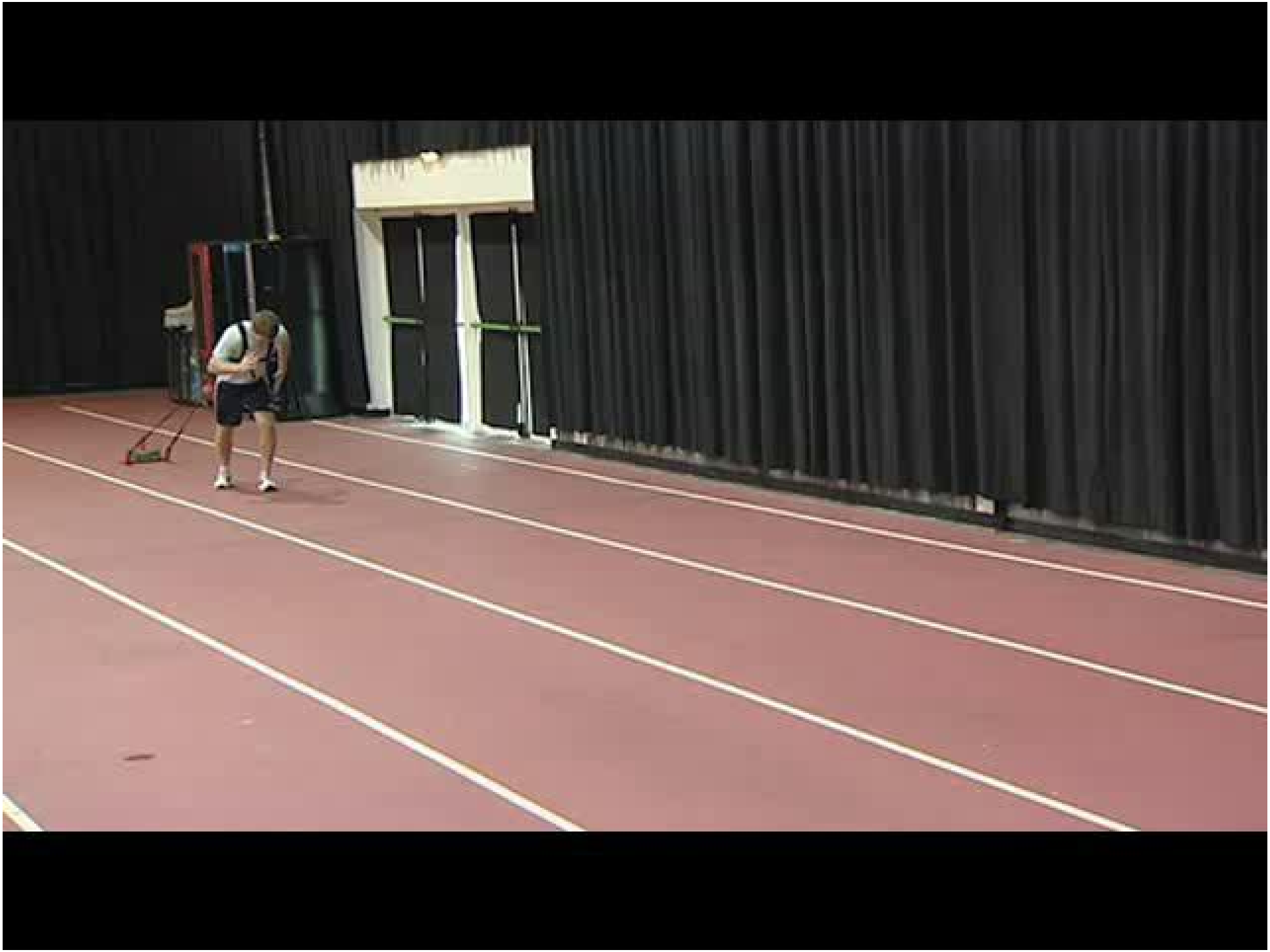
# IRB Level 1 Strength & Conditioning

- www.irbsandc.com
- 6 Modules
- MCQ's
- Optional One day workshop

SETANTA COLLEGE
Institute of Strength and Conditioning Studies

# IRB Training portfolio





# Course Content

- **Within its six modules, the Level 1 course will address eight key topics:**

- **Long Term Player Development Pathway**
- **Functional screening**
- **Anatomical Adaptation**
- **Demands of the game**
- **Principles of training**
- **Speed and intermittent sprint endurance**
- **Periodisation**
- **Recovery**

# Course Content

- **Module 1 -** The coach will be able to describe the different stages of the Long Term Player Development Pathway.
- **Module 2 -** The coach will be able to administer a basic functional screen.
- **Module 3 -** The coach will be able to implement an anatomical adaptation programme.
- **Module 4 -** The coach will have an understanding of the demands of the game and will be able to describe the principles of training. In addition, the coach will become familiar with warm-up and cool-down activities.
- **Module 5 -** The coach will have a knowledge and appreciation of the different methods of developing speed acceleration and game-related conditioning. The coach will also be able to implement speed, multi-sprint/activity and conditioned games to advance the match fitness of players.
- **Module 6 -** The coach will have an understanding of programme planning and periodisation. The coach will also develop an understanding of the importance of recovery and be able to implement key elements of recovery, such as unloading and tapering, within the programme.

# Timetable

| Topic | Time |
|---|---|
| Introduction | 9.15am |
| Pathway / Screening | 9.30am |
| Break | 11.00am |
| Demands / Anatomical Adaptation | 11.30am |
| Lunch | 1.00pm |
| Conditioning | 2.00pm |
| Planning | 3.30pm |
| Break | 4.15pm |
| Competence Assessment | 4.30pm |
| Wrap Up | 5.30pm |

# L.T.P.D. Pathway

- **Content:**
- The Long Term Player Development Pathway
- Introduction
- Preparing the player to perform
- The components of fitness
- LTPD Pathway and key principles
- Summary

- **Outcomes**
- The coach will be able to describe the different stages of the Long Term Player Development Pathway.

# LTPD Considerations

# IRB LTPD model

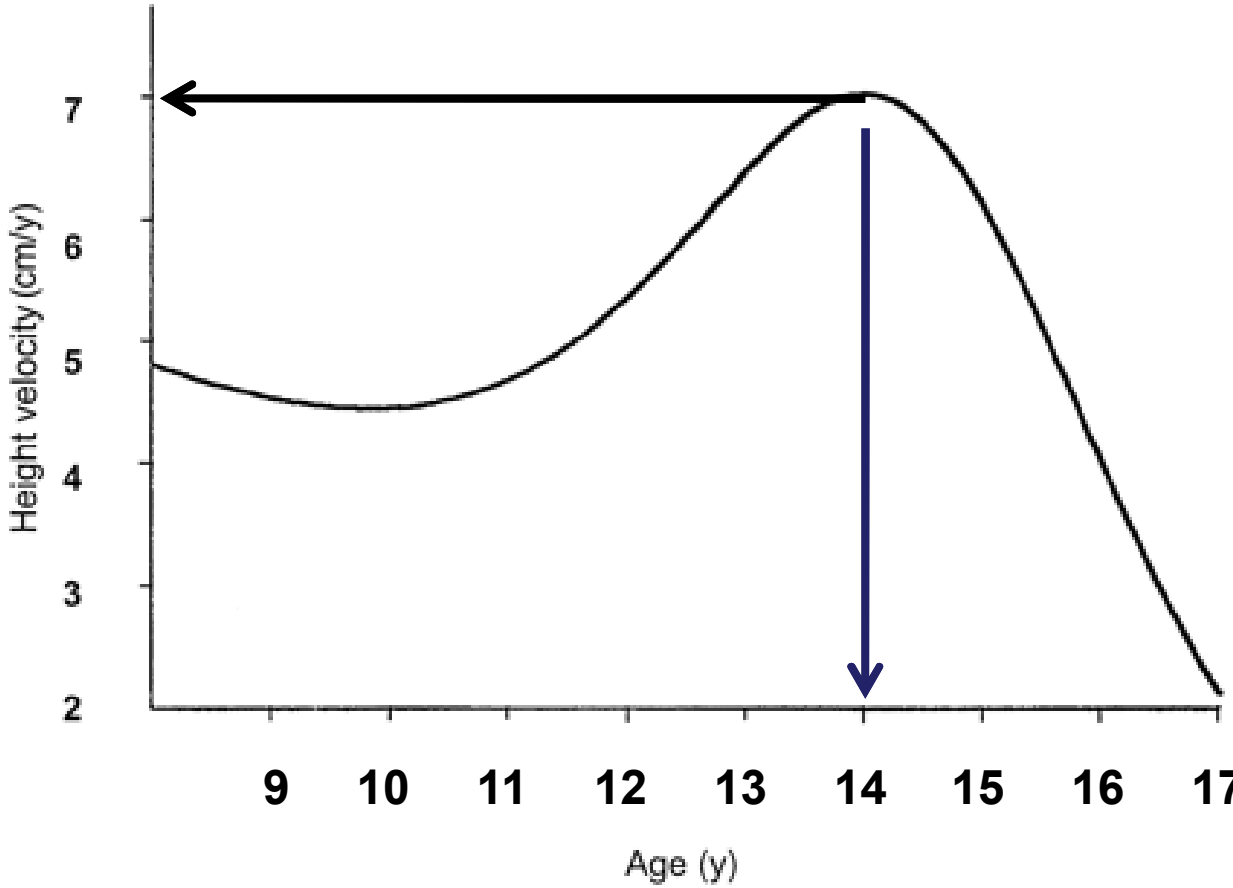
| | | | |
|---|---|---|---|
| Stage: **FUN**<br>Age guide: 6-12<br>Player **PLAYS**<br>Coach **GUIDES**<br>Content: Learning to move, basic Rugby skills |  | Stage: **PREPARATION**<br>Age guide: 17-21<br>Player **SPECIALISES**<br>Coach **FACILITATES**<br>Content: Reaching full potential |  |
| Stage: **DEVELOPMENT**<br>Age guide: 12-16<br>Player **EXPLORES**<br>Coach **TEACHES**<br>Content: Learning the Game |  | Stage: **PERFORMANCE**<br>Age guide: 20 and over<br>Player **INNOVATES**<br>Coach **EMPOWERS**<br>Content: Consistency of performance |  |
| Stage: **PARTICIPATION**<br>Age guide: 15-18<br>Player **FOCUSES**<br>Coach **CHALLENGES**<br>Content: Playing the Game, developing the player |  | Stage: **RE-INVESTMENT**<br>Age: any<br>Content: Support and enjoyment of the Game |  |

# L.T.P.D. Pathway

| | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Stage 5 |
|---|---|---|---|---|---|
| **Phase** | Fun | Development | Participation | Preparation | Performance |
| **Age guide** | 6-12 years | 12-16 years | 15-18 years | 17-21 years | 20 & over |

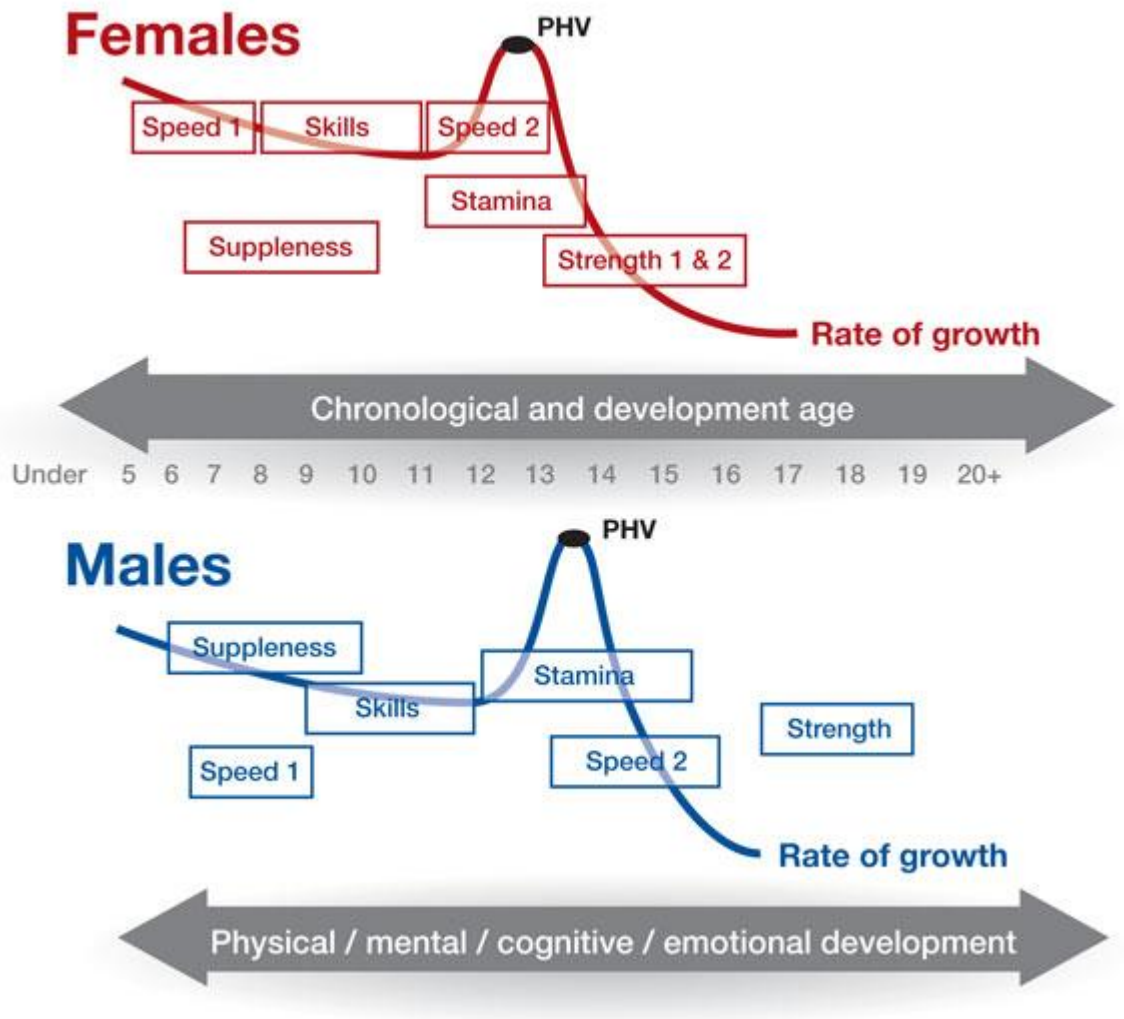
***Table 1: The stages of development during the Long Term Player Development Pathway. Note the corresponding chronological age for each stage is given, even though this may vary depending on the maturation age of the player***

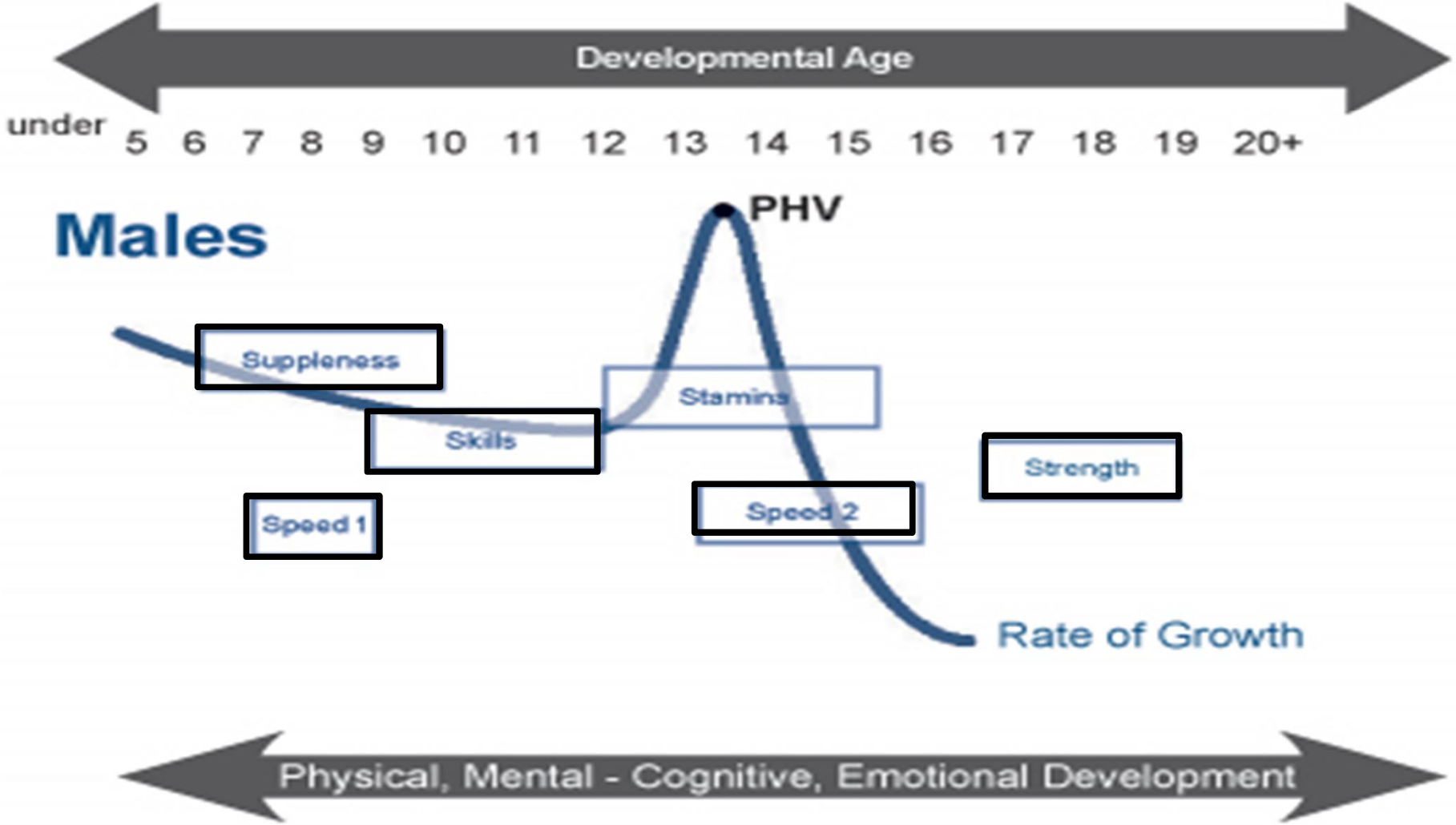
# Growth Patterns




**The child may grow at a rate of 7cm a year**

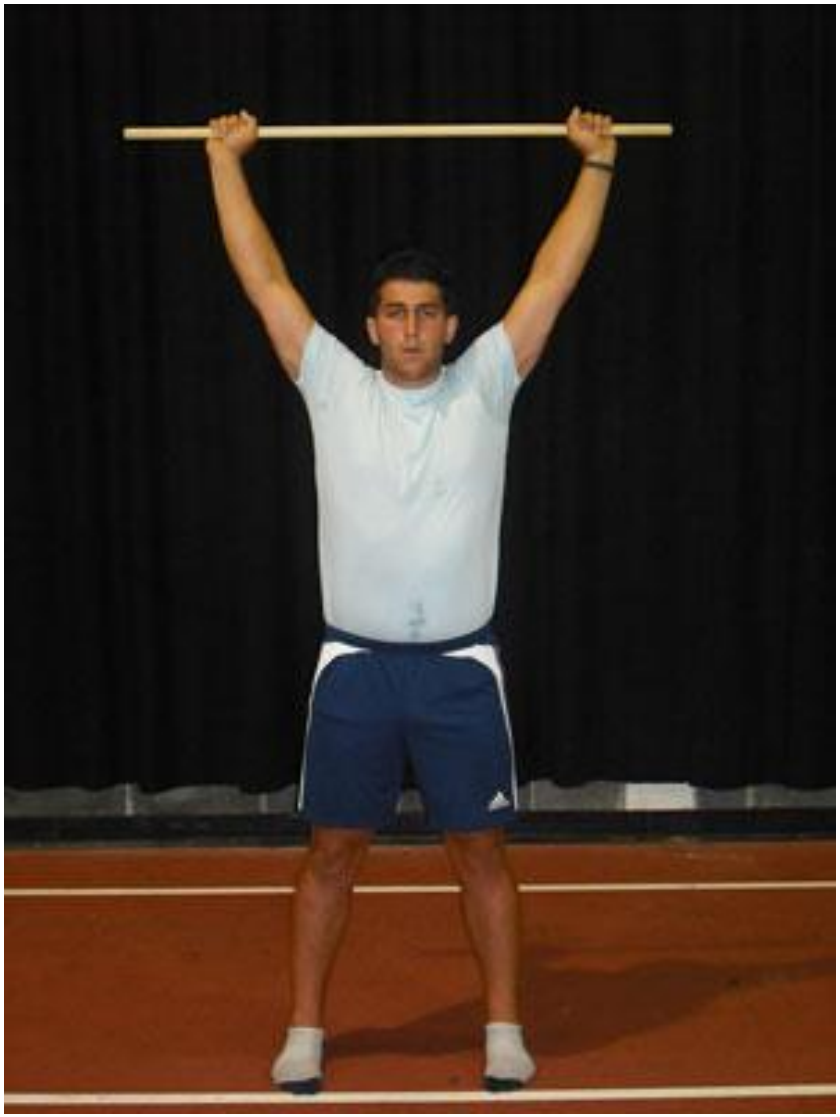
**This Childs peak in growth (PHV) is approximately when he/she is 14. This could be two years earlier or two year later with different children**


Females
PHV
Speed 1
Skills
Speed 2
Stamina
Suppleness
Strength 1 & 2
Rate of growth
Chronological and development age
Under 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+
Males
PHV
Suppleness
Stamina
Skills
Strength
Speed 1
Speed 2
Rate of growth
Physical / mental / cognitive / emotional development


Developmental Age
under 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+
Males
PHV
Suppleness
Skills
Speed 1
Stamina
Speed 2
Strength
Rate of Growth
Physical, Mental - Cognitive, Emotional Development

# Functional Screening

- **Content**
- Introduction
- Facility and equipment required for the overhead squat functional screen
- Getting set up
- Instructions to the player
- Positioning of the coach
- Ethics in testing
- Warning
- What to screen
- The 'yes' or 'no' scoring system
- Additional examples of common compensations
- What are the common compensations during the squat?
- **Outcomes**
- The coach will be able to administer a basic functional screen.



# Break

## & Explanation of Task

# Demands of the Game

- **Content**
- Introduction
- The demands of the game
- The principles of training
- Warm-up
- Cool-down
- Summary
- References
- **Outcomes**
- The coach will have an understanding of the demands of the game and will be able to describe the principles of training. In addition, the coach will become familiar with warm-up and cool-down activities.

| Group | Activity | Total distance covered | Average distance | Frequency |
|---|---|---|---|---|
| Props & locks | Walk | 1000m | 14m | 73 |
| | Jog | 3050m | 22m | 143 |
| | Cruise | 363m | 14m | 26 |
| | Sprint | 94m | 20m | 4 |
| | **Total** | **4400m** | **-** | **-** |
| Back row | Walk | 992m | 13m | 76 |
| | Jog | 2940m | 29m | 154 |
| | Cruise | 368m | 11m | 33 |
| | Sprint | 94m | 15m | 6 |
| | **Total** | **4080m** | **-** | **-** |
| Backs | Walk | 1660-1740m | 14-22m | 120-132 |
| | Jog | 2110-2600m | 16-20m | 139-159 |
| | Cruise | 514-565m | 11-13m | 43-45 |
| | Sprint | 208-297m | 19-24m | 12-15 |
| | **Total** | **5530-5750m** | **-** | **-** |

*Table 4: Time-motion analysis. Based on the average for three groups: props and locks, back row, and inside and outside backs. Distances are given in metres. Frequency of each type of activity during the game is given (adapted from Deutsch et al, 1998).*

| Low intensity activity | | | | High intensity activity | | | |
|---|---|---|---|---|---|---|---|
| **Group** | **Stand still** | **Walk** | **Jog** | **Medium intensity running / cruising** | **High intensity run** | **Sprint** | **Static exertion** |
| **Tight forwards** | 27:42 | 26:37 | 13:19 | 3:14 | 0:49 | 0:17 | 8:03 |
| **Loose forwards** | 23:34 | 29:58 | 14:01 | 3:17 | 0:58 | 0:26 | 7:47 |
| **Inside backs** | 25:14 | 34:01 | 13:57 | 3:39 | 1:18 | 0:17 | 1:33 |
| **Outside backs** | 21:37 | 39:11 | 13:17 | 2:53 | 1:21 | 0:36 | 1:05 |

*Table 5: The locomotion activities completed during match play and the relative time spent (minutes:seconds) in each activity for players in different positions. N.B. Static exertion (SE) includes scrums, rucks, mauls, lineout lifts and tackles (adapted from Roberts et al, 2008).*

| Group | Rucking/Mauling | Scrummaging | Tackling |
|---|---|---|---|
| **Front row** | 96 | 49 | 19 |
| **Back row** | 68 | 47 | 29 |
| **Inside backs** | 21 | N/A | 28 |
| **Outside backs** | 12 | N/A | 16.5 |

*Table 6: Frequency (number of activities per game) of rucking/mauling, scrummaging and tackling during match play for players in different positions (adapted from Deutsch et al, 2006).*

# Anatomical Adaptation

- **Content**
- Introduction
- Acute training variables
- Benefits of anatomical adaptation phase
- Anatomical adaptation integrated with the Rugby programme
- The warm-up for an anatomical adaptation session
- Bracing the core - what is it and how to do it?
- A sample anatomical adaptation circuit
- Exercise details
- Summary
- References
- **Outcomes**
- The coach will be able to implement an anatomical adaptation programme.

# Exercises


# Lunch

## & Explanation and Tasks

# Conditioning

- **Content**
- Defining speed
- Training modes for speed
- Summary guidelines for speed development
- Resistance training
- Practical speed-related drills
- Game-related conditioning
- Specificity in training
- Multi-sprint/activity training
- Additional game-related conditioning drills
- Summary of guidelines for multi-sprint/activity and conditioned games
- Summary
- References

- **Outcomes**
- The coach will have a knowledge and appreciation of the different methods of developing speed acceleration and game-related conditioning. The coach will also be able to implement speed, multi-sprint/activity and conditioned games to advance the match fitness of players.

# Drills, Exercises & Games

# Planning & Periodisation

- **Content**
- Introduction
- Terms used
- Periodisation - what is it?
- Summary
- References

- **Outcomes**
- The coach will have an understanding of programme planning and periodisation. The coach will also develop an understanding of the importance of recovery and be able to implement key elements of recovery, such as unloading and tapering, within the programme.

# Planning & Periodisation

- Key terms used ï
- **Macrocycle**
- **Mesocycle**
- **Microcycle**
- **Double periodised year**
- **General phase training**
- **Special phase training**
- **Maintenance phase**
- **Volume**
- **Intensity**
- **Tapering**
- **Peaking**
- **Undulating**
- **Variation**

# RPE

| Rate of Perceived Exertion Scale | |
|---|---|
| **Rating** | **Descriptor** |
| 6 | |
| 7 | Very, very light |
| 8 | |
| 9 | Very light |
| 10 | |
| 11 | Fairly light |
| 12 | |
| 13 | Somewhat hard |
| 14 | |
| 15 | Hard |
| 16 | |
| 17 | Very hard |
| 18 | |
| 19 | Very, very hard |
| 20 | |

**Player identifies intensity 20-30 minutes after unit+**
**Education of all involved required if system is to be useful**
**Time x PRE = Training load**
**60 minutes x RPE of 12 = 720 load**
**('TRIMP')**

*Table 10: Rate of Perceived Exertion Scale (adapted from Foster et al 2001, Kelly and Coutts 2007)*

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|
| A.M. | | | | | | | |
| P.M. | | | | | | | |

# Break

# Competence Assessment