

**BATH (ENGLAND) RUGBY ACADEMY
PHYSICAL PREPARATION
BY
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Perhaps the key role of the Bath Rugby England Rugby Academy is the physical development of high-quality young players. At Bath Rugby Academy we aim to help young players develop their physical capacity, their understanding of what they are doing and how they will play and train at the highest level.

As well as improving speed and strength we place a good deal of emphasis on injury prevention and education. It is essential that players understand how to look after themselves, from which sports supplements are safe to their activities following a match to ensure their recovery is optimal. Physical training in the Academy follows a similar format to that which is conducted by the first-team squad. This is done to ensure a smooth transition from the Academy squad to the First XV.

Academy players will complete between three and five skills sessions each week, depending on their age and their playing programme. Rugby development is the main focus in the timetable, with sessions for physical conditioning arranged around skill sessions. The vast majority of endurance training and speed and agility work is included within the skills sessions. This allows the physical training to incorporate skill elements.

Rugby Union is no longer classed as merely a contact sport, but a collision sport, with rising numbers of serious injuries being reported at the highest level. In order to make the most of their talent, most young players are faced with the prospect of needing to become bigger, stronger and faster. Due to the high rate of injury in top-class rugby, a great importance is placed on injury prevention with the Bath Rugby Academy, as we are committed to protecting the potential of the players in our care. Preventative rehabilitation or 'prehab' sessions take place in the gym before every weights session. During this period the players work on their specific flexibility issues and core stability and carry out specific individual programmes that may be appropriate, based on regular screening results.

“The athletes we are dealing with are diverse individually, particularly in their rate of growth, which we need to monitor so as to modify their training appropriately. Through screening, we can monitor the changes of which we need to be aware and professionally supportive.” (SB)

As well as completing the exercises, the players' understanding of the need for flexibility and the role of specific exercises in preventing injury are developed during their time in the Academy.

Whilst the key to good injury management is prevention, injuries inevitably occur at training sessions and during matches. At Bath Academy a full time Chartered Physiotherapist is employed solely for the players under twenty one years of age.

Physiotherapy treatment is based at the Recreation Ground or Lambridge Training Ground around University/College/School and training timetables. All Bath Rugby Academy matches have pitch-side physiotherapy cover in accordance with the RFU regulations for March 2007.

In training, Academy players will complete three weights sessions in a typical week. All the programmes are designed with their individual objectives, age and position in mind.

“If the players work hard they will see improvements in power, strength and lean size as well as posture.” (PH)

Whilst it is important that the players develop quickly within the Academy, it is also essential that they learn the basics of the techniques well, to ensure that they set the best possible foundation to keep improving physically throughout their careers. As well as weights, speed sessions are an important part of each training week. Speed sessions focus on developing good running mechanics. Along with improved flexibility and increased strength, good improvements in speed have been the result for many of the players.

An essential facilitator to training is nutrition. This is a critical factor to a young rugby player’s development. However, it can be difficult for the players to consistently get all the nutrients they need, particularly when they move away from home and are busy with both academic pursuits and training. At Bath Rugby we are lucky to have catering facilities on site, where nutritionally balanced meals are available to the Academy players on a daily basis. A balanced diet and good hydration are essential for sports performance and the players are advised about this. The academy also supplies and advises on sports nutrition supplements.

“We control the supplements the players use. This means we can make sure they use supplements which are not contaminated and ones which are going to help their development. It also means that we can make sure they are not being used as a substitute to a balanced diet, as this and good hydration have got to be in place before supplements are worth employing.” (PH)

The Academy conducts physical testing sessions three times each season to ensure all of the players are developing. Physical capacities such as strength, speed, agility, power and endurance are monitored, as are flexibility and body fat. All of this helps us to make sure the players are progressing well and that they are not putting on the wrong sort of weight. All the Academy players are also screened at the beginning of each season.

“From an injury management and prevention perspective, new players are asked to complete a questionnaire to highlight any injury issues before pre-season training

starts. We then screen all the players at the beginning of pre-season and at regular intervals to monitor what effect the training they undergo is having, and to pre-empt future problems.” (SB)

As well as our own in-house testing, the Academy players have been involved in research projects through the Sports Science Department at the University of Bath. The University of Bath is at the forefront of sports science research and working with them has helped to increase both the players’ and the coaches’ knowledge and understanding of the effects training has on growing athletes.

“During pre-season, we were involved in a joint project between the University and Lucozade, looking at hydration levels. By monitoring the players’ hydration levels, we were able to identify players who were arriving at training dehydrated and those who were not drinking enough during training. As dehydration can increase the risk of injury and reduces physical performance, this project should help to improve the quality of certain players’ training.” (PH)

Another element on the timetable for these young athletes is recovery, which is scheduled in to help players to optimise the physical development they can achieve both from the rest of the programme and, of course, following a game. Active recovery includes activities such as pool-based sessions, gym bike-based flexibility, contrast baths and hydrotherapy. Players have the opportunity to attend a session in the hydrotherapy pool where the principles of buoyancy aid flexibility work and rehabilitation from certain injuries can be enhanced through techniques not achievable on dry land.

On the next pages there is a short quiz to test readers’ knowledge. Most coaches will, of course, score ten out of ten

QUESTIONS.

1. Which of the following is the best material when choosing socks for sports?
 - A. Cotton
 - B. Acrylic (eg CoolMax)
 - C. Lycra
 - D. Nylon

2. What is usually recommended for managing inflammation caused by an injury?
 - A. Rest, ice, compression and elevation
 - B. Anti-inflammatory tablets and crutches
 - C. Alcohol
 - D. Massage

3. What is an indicator of poor hydration levels?
 - A. Concentrated urine
 - B. Muscle cramps
 - C. Thirst
 - D. All of the above

4. Which of the following can limit a player's running speed?
 - A. Flexibility
 - B. Muscle power
 - C. Excess body fat
 - D. Technique
 - E. All of the above

5. Which of the following are *not* low glycemic index (GI) carbohydrates?
 - A. Wholemeal bread
 - B. Apples
 - C. Cashew nuts
 - D. Pasta

6. Which of the following are *not* high glycemic index (GI) carbohydrates?
 - A. White bread
 - B. Potatoes
 - C. Bananas
 - D. Dried apricots

7. How soon after training should a player consume a meal/snack?
 - A. 5 minutes
 - B. 20 minutes
 - C. 50 minutes
 - D. 2 hours

8. You can fail a drugs test if you test positive because of a contaminated protein shake, even if it wasn't your fault.
- A. True
 - B. False
9. Which of the following medical treatments does *not* require a doctor's certificate before sports participation?
- A. Cortico-steroid injection
 - B. Steroid inhaler (salbutamol/becotide)
 - C. Caffeine
 - D. Over the counter cold remedies containing ephedrine
10. What does the podiatrist assess?
- A. Spine
 - B. Feet and biomechanics
 - C. Ear nose and throat diseases
 - D. The immune system

ANSWERS.

1. B - Acrylic
2. A - Rest, ice, compression and elevation (RICE)
3. D - All
4. E - All
5. D - Pasta
6. D - Dried apricots
7. B - 20 minutes
8. A - True
9. C - Caffeine
10. B - Feet and biomechanics