RADLEY

“Athletic Development” Handbook.

Guidelines for the Start of the

2026/2027 Academic Year.

Contents

Director of Sport Welcome.

The start of the academic year is always an exciting time. There are many new challenges and settling back into campus life takes some adjustment. Sport, games and activities will occupy a significant part of your weekly schedule and being physically prepared for the sudden increase in activity in the Michaelmas term is important if the experience is to be an enjoyable one. The summer break is always something that we look forward to, but it can be a period where our level of physical activity can drop, and we can often allow ourselves to lose fitness. Returning to Radley College at the start of Michaelmas term with a good level of physical fitness will help reduce your risk of injury and will also enhance your sporting experiences. The following guidelines should be used to ensure that you start the academic year at a level of physical fitness that will enable you to enjoy the experience - **JAG**

Radley College Athletic Development Department

Head of Athletic Development Welcome.

Athletic development beyond the pitch/court/river is becoming an increasingly important part of a young aspirational athletes' journey. It is a multifaceted approach, needing a healthy balance of work and preparation (training/competing) vs recovery (rest), supported by your nutritional habits. This is where the Athletic Development (AD) team comes in, it comprises of; Head of AD, two Graduate AD Coaches and a Sport Therapist. There is a robust AD pathway in place for you at Radley, with the sole aim of keeping you healthy to enjoy sport, as well as to instill good training behavior's for when you leave Radley. The following guidelines are in place to ensure you gradually increase your training load, so that you are in the best possible condition to enjoy all the sport and activities for when you arrive in September. I must state that the following is only a guide, please don't feel the need to stick to this rigorously. We are very much looking forward to welcoming you to Radley this September - **HRW**

What is our role?

Radley employs a team of AD coaches to help with the physical development and performance of young sportsmen, and to minimize the risk of injuries. Strength training involves all forms of resistance training, whilst the conditioning element focuses on attributes such as speed, agility, and endurance. Additionally, our AD coaches will provide guidance on nutrition and appropriate training volume, whilst also monitoring the physical maturation of sportsmen.

What to Expect as a Shell

- Learning fundamental movement patterns
- Fitness and anthropometric (height and weight) testing
- Learning correct running and jumping techniques
- An introduction to weight training and safety considerations

How Much Physical Activity Do I Need?

To maintain a basic level of health, we need to do:

- At least **60 minutes** of physical activity every day.
- A combination of “Moderate-Intensity Aerobic Activity” and “Vigorous-Intensity Aerobic Activity”.
- Activities which involve muscle-strengthening and bone-strengthening activities, such as pull ups, gymnastics, jogging, running and jumping, should be performed a few days per week.

What is Moderate-Intensity Aerobic Activity?

Moderate-intensity aerobic activity is when you're exercising hard enough to raise your heart rate and break a sweat. (You can still talk but you can't sing the words to a song.) This can include activities such as; skateboarding, riding a bike on level ground, Tennis, Swimming

What is Vigorous-Intensity Aerobic Activity?

Vigorous-intensity aerobic activity is when you're breathing hard and fast, and your heart rate is elevated. (You won't be able to say more than a few words without pausing for a breath.) Activities include;

- Playing Court or Field based sports, (Football, Basketball, Hockey, Squash, Rugby)
- High Level Trim Trail, Running, Aerobics, Spin Classes, Circuit Training,
- Martial Arts (Judo, Karate etc.)

What is Muscle-Strengthening Activity?

For young people, muscle-strengthening activities are those that require them to lift their own body weight or to work against resistance. Examples include; Pull Ups, Gymnastics, Circuit Training, Rock/Rope Climbing

What is Bone-Strengthening Activity?

Bone-strengthening activities produce an impact or tension force on the bones. This promotes bone growth and density. Examples include:

- Activities that require you to lift your body weight or to work against a resistance,
- Jumping and Climbing Activities

Healthy Weight/Body Composition

- Young people who are overweight can improve their general health by meeting the recommended activity guidelines.
- To reach and maintain a healthy body composition, it is important to exercise regularly (the recommended 60 minutes of activity a day) and also make sustainable modifications to nutrition.

What is a Healthy and Well Balanced Diet?

- A healthy and well-balanced diet is important to live a healthy life.
- Eating a variety of foods can help you manage your weight, improve general health/wellbeing and to boost your immune system.
- It can also lower the risk of developing conditions including heart disease, stroke, some cancers, diabetes and osteoporosis (low bone density).
- A healthy and well-balanced diet can improve recovery from sport and exercise and will provide your protein needs. **(No supplements required)**
- It can also improve your cognitive function. (Your brain's information processing.)
- All you need to do is eat sensibly, choosing a range of foods from the five food groups in the correct proportions (figure 1)

Figure 1

The Tuck Box

In 2014, Radley College commenced a programme of nutrition education, related to making healthier food choices and eating to maintain a balanced lifestyle. Within the programme, we have highlighted the importance of attending meals in the Dining Hall and how to make balanced meal choices. The Radley College caterers plan the menus to ensure that a nutritious diet is provided. Historically the "Tuck Box" has been used as a snack box and over time it has slowly become a "treat box" and some boys decide to use it as an alternative to Dining Hall meals.

Eating three balanced Hall meals a day is important and using the "Tuck Box" as a snack option and not a replacement for Hall meals must be stressed.

Added sugars is a "hot topic" and part of the programme helps the boys to understand "hidden sugars" and how easy it is to exceed our daily recommended allowance; and the potential short- and long-term negative effects on our health.

We can significantly reduce the quantity of hidden sugars consumed by adding healthier options to the Tuck Box and by giving the boys guidance on how to make healthier choices.

It should be remembered that the Social kitchens also supply the boys with a variety of basic foods including milk, fruit, bread and various spreads to complement their diet. The Tuck Box should be seen as an alternative healthy option snack box and not as a replacement for the nutritious meals supplied through the College Dining Hall.

How do I know if a food is high in sugar?

There are guidelines to tell you if a food has high sugar content or not. Look at the “Nutrition Labels” on food packaging for the sugar content of the foods that you buy.

As a guide:

High Sugar = more than 22.5g of the total sugars per 100g

Low Sugar = 5g or less of the total sugars per 100g.

Added sugars shouldn’t make up more than 10% of energy (calorie intake) from food and drinks per day.

What is added sugar?

Added sugars are sugars that have been added to a food or beverage during processing or preparation of the food. On the ingredient list of food labels, they can be identified as:

- Dextrose
- Corn syrup
- Fructose
- Malt syrup
- Maple syrup
- Sugar
- Brown Sugar
- Dextrose
- High-fructose corn syrup (HFCS)
- Maltose
- Sucrose

What are Healthy Tuck Box Options?

- Tyrrell's Popcorn (already popped)
- Rice Cakes (these come in many different flavours and varieties including chocolate coated)
- Oatcakes (Nairn's brands of foods are better choices, they supply healthier versions of cookies, crackers and oatcakes)
- Ryvita Crisp Bread (also come in a variety of options)
- Nuts, seeds and pretzels
- Soreen malt bread and banana bread
- Rice pudding
- Innocent Noodle Pots (better version of a standard noodle pot)
- Muesli bars (read nutritional labels on muesli bars as some brands can contain very high levels of sugar. Naked bars and Eat Natural bars are some of the better nutritional choices)
- Beef Jerky
- Dole Fruit Cups

Better choices for the Tuck Box.

- Instead of sugary fizzy drinks and juice drinks that are high in sugar, (for example a can of Coke contains 35g sugar. This is the equivalent to nearly 9 teaspoons of sugar in one can). Instead choose water or unsweetened fruit juice.
- Swap cakes or biscuits for a currant bun, crumpets, fruit loaf, scone, or malt loaf with low-fat spread.
- Check nutrition labels to help you pick the foods with less added sugar, remembering that one-teaspoon of sugar is 4g!
- Also read the ingredients list of the foods you buy and see what food manufacturers are putting into the foods you eat.
- If you enjoy home-baked Tuck, then try halving the sugar you use in the recipes and/or select healthier options such as flapjack, banana bread, scones, and oat cookies.

Keep yourself Hydrated

What should I drink for sport?

Being well hydrated is very important when physically active and/or participating in sport. Research supports claims that being dehydrated has a detrimental effect on athletic performance. Dehydration can also alter cognitive function (brain activity) and it can increase the risk of injury, such as concussion. Keeping a water bottle handy and having regular “drink breaks” is important to reduce the risk of becoming dehydrated.

The use of “sports energy drinks” is a subject that is often discussed. Many of the commercially available sports energy drinks have relatively high calorie content and unless we are embarking on an ultra-endurance event, we should be conscious of how we use such products. If you remember to drink small amounts of water (a small cup) at regular intervals during your training session then you should be taking the appropriate actions to avoid possible dehydration.

Warm ups & Cool downs

Warm Up – Introduction

Warm ups aim to serve four primary principles; mental readiness, physical readiness, injury reduction and performance enhancement. Historically and still today, warm ups comprise of jogging around the field followed by static stretching (a position held for approx. 20 seconds). However, a relatively new method known as 'RAMP' developed by Jeffrey's (2007) will be discussed in the following section and should be performed prior to playing sport and training.

Warm Up – Procedures

The "RAMP" protocol developed by Jeffrey's (2007) allows for activities to be easily classified and constructed in the following warm up sequence:

1.) **R**aise
2.) **A**ctivate & **M**obilise
3.) **P**otentiate

Phase 1 – Raise

The aim of the 'Raise' section is to; increase body temperature, heart rate, respiration rate, blood flow and joint viscosity. A 'lap of the pitch' is a waste of valuable training time as it's not specific to the movements performed during sports. Figure 2 shows a change of direction (COD) drill that can be easily set up. Options of movement combinations are highlighted below.

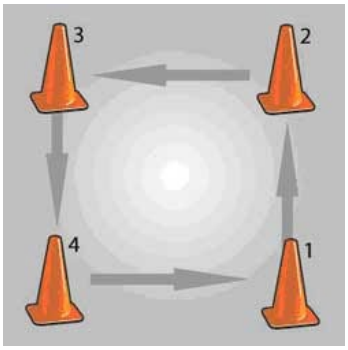


Figure 2

Option 1

Starting on cone 1; run forward to cone 2 and stop - immediately side shuffle to cone 3 and stop - immediately back pedal to cone 4 and stop - immediately side shuffle back to the start (cone 1).

Option 2

Starting on cone 1; run forward to cone 2 and stop - immediately turn and run forward to cone 3 and stop - immediately turn and run forward to cone 4 and stop - immediately turn and run forward back to the start (cone 1).

***On each rep change the side you start on (either cone 1 or 4) ***

Perform this drill for 2 minutes, with 10 seconds' rest between reps. The intensity should start at ½ pace (50% of max running speed) and progress to ¾ pace (75% max running speed) towards the end.

Phase 2 – Activate & Mobilise

The aim of this phase is to; activate key muscle groups, mobilise key joints and ranges of motion used in the sport or activity. As mentioned previously, static stretching is commonly used in a warm up. However, it can compromise subsequent performance by reducing power output as well as decreasing heart rate and muscle temperature. Therefore, it is important to perform dynamic stretches during this phase.
Perform 1 round of the bodyweight circuit (see below) for this phase.

Phase 3 – Potentiate

The aim of this phase is to excite the nervous system by increasing the intensity so that boys can perform their training/match activities at maximal levels. Previous phases will have provided the base upon which to effectively apply this phase. The intensity should start at ¾ pace (75%) moving to full pace/maximal intensity (100%).

Sprints

20m – The focus of this drill is to stay low and gradually rise as the boy gets towards 20m, whilst keeping your eyes up to see what's in front. Race against someone to improve motivation.

Sets: 1

Reps: 4

Intensity: reps 1 & 2 = ¾ pace / reps 3 & 4 = full pace

Once you pass 20m, slow down as fast as possible

Cool down – Introduction

Static stretching after exercise is often used to aid recovery by reducing muscle stiffness and soreness, however, this has been shown not to be the case. Recovery after exercise should enhance blood and lymph flow to nourish muscles and remove waste products. However, static stretching decreases blood flow, which may in turn hinder full recovery.

Cool down – Procedures

To enhance blood and lymph flow whilst preventing blood pooling, moderate to low intense exercise should be performed for 5 minutes following exercise.

Option 1 – Run > jog > walk over 5 minutes

Option 2 – Cycle whilst gradually decreasing the intensity over 5 minutes

Aerobic Exercise

What is aerobic exercise?

Before arriving to Radley, it is important to have a good fitness base to prevent the risk of injury due to the sudden increase in exercise volume. Aerobic fitness can be the foundation of this and can be trained by engaging in a mixture of continuous and/or interval activities at different intensities.

What are the health-related benefits of aerobic exercise?

- Increase in the size and strength of your heart.
- Reduced resting heart rate.
- Increased metabolic energy stores.
- Increases in muscular strength and endurance.
- Increases in ligament, tendon and collagen strength.
- Improvements in body composition (decrease in body fat mass)

Sample Programme.

Table 1 shows a periodised fitness block to complete over summer. As you will be playing rugby when you arrive in September it is important to complete as much as you can, especially for aspiring M1 rugby players!

If you start by doing two sessions per week at the beginning of August, you will have built up a good level of physical fitness by the start of the Michaelmas term. If your 4 weeks is interrupted, ensure you pick up where you left off.

Week	Session	Session Description
1	1	20-minute jog
	2	20-minute run (slightly faster than session 1)
2	1	100m intervals (~18-20 seconds per rep): On the minute, every minute Sets 1, repetitions 8
	2	100m intervals (~18-20 seconds per rep): On the minute, every minute Sets 1, repetitions 10
3	1	50m return intervals (~18-20 seconds per rep): On the minute, every minute Sets 1, repetitions 8
	2	50m return intervals (~18-20 seconds per rep): On the minute, every minute Sets 1, repetitions 10
4	1	25m return intervals (fast as you can for each rep): On 30 seconds, every 30 seconds Sets 1, repetitions 8
	2	25m return intervals (fast as you can for each rep): On 30 seconds, every 30 seconds Sets 1, repetitions 10

Table 1

Circuit Training

What is circuit training?

Circuit training is a series of exercises that involve bouts of exercise followed by short rest periods. Circuits use an array of exercises and can therefore allow for the whole body to be trained in one session. If you are short in time circuit training is an ideal.

What are the health-related benefits of circuit training?

- Increased ligament, tendons and collagen strength.
- Improvements in body composition (decrease in body fat mass and increase in muscle mass).
- Improvements in muscular strength and power.
- Improve muscular endurance.
- Improved body control.

Guidelines to follow when performing the circuit station:

- Perform each exercise in a circuit fashion with 15 seconds' recovery between each exercise
- Perform each exercise for 3 seconds on the way up and 3 seconds on the way down (be strict on time)
- Maintaining good technique (table 2 & 4) whilst under fatigue is the priority
- Move through a full range of motion
- Keep constant tension on the muscle throughout (do not lock out joints or spend time stationary)
- Can be used as a warm up as highlighted previously. If so, only perform 1 round

Exercise	Learning Points	Exercise Regressions (If needed)
Squat	Heels stay down throughout Neutral spine Drive knees out	N/A
Press Ups	Neutral spine Rigid body from toes to head Don't let elbows flare out	Perform exercise on knees
Split Squats	Toes pointing forward with knees aligned Weight on heel Torso upright Large gap between feet	N/A
Front Plank	Elbows under shoulders Neutral spine	N/A
Glute Bridge	Heels close to body Squeeze glutes tightly and raise hips high as possible	N/A
Side Plank (L)	Elbow below shoulder Keep hips up	Perform exercise on knees instead of feet
Side Plank (R)	As above	As above

Table 2

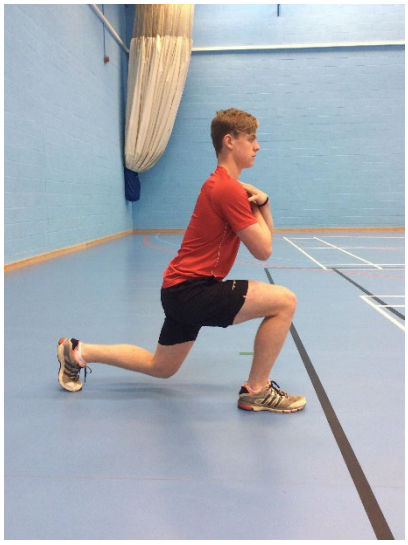
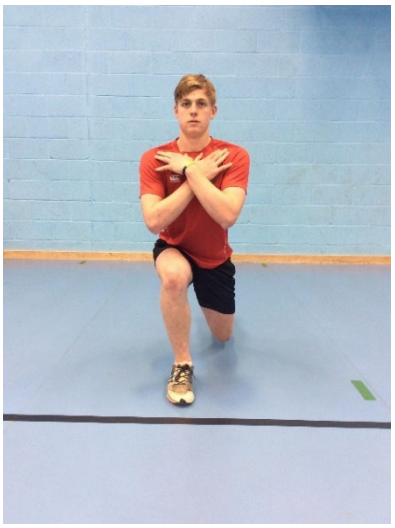
Circuit Schedule

Table 3 shows how many rounds of the circuit to perform each week, along with the weekly exercise duration.

Week	Rounds/Exercise duration (seconds)
1	2/45
2	3/45
3	2/60
4	3/60

Table 3

Exercise	Demonstration Picture
Squat	 
Press ups	 

Glute Bridge	 
Split Squat	 
Front Plank	

Side Plank	

Table 4

Recovering from Training

Training imposes stress on the body which causes fatigue, lowering levels of performance. The body then adapts to this training stress by becoming 'stronger' for example. However, this can only occur through proper recovery. Combining the correct nutrition practices highlighted previously along with other recovery strategies which are explained below, the boy will be in an optimal state to perform.

Sleep

The National Sleep Foundation recommends nine to eleven hours of sleep per night for 13-year-old boys. Anabolic hormones are released during sleep, important for the bodies repair and recovery. Failing to hit the recommended hours of sleep per night adds additional stress to the body which can inhibit the rate of recovery, lower immunity and interfere with learning and memory. Von Rosen et al. (2010) also highlighted the importance of sleep for young sportsmen, showing that elite adolescent athletes, sleeping more than 8 hours per night reduced the odds of injury by 61%.

Self-Myofascial Release

This term refers to manual therapy techniques performed on yourself. A simple and effective way to achieve this is foam rolling. Research indicates that if done correctly, and with purpose, this modality may improve muscle flexibility, certain elements of sports performance and exercise recovery. Different techniques exist for rolling however, current guidelines suggest that you should complete 3-5 sets of 20-30 seconds to a tolerable level of pressure/discomfort when rolling an individual muscle, and that this should be completed 3-5 times each week. Many people achieve this frequency by including foam rolling in their warm-ups.

Rest Day

To optimise your physical performance gains, it is important to include regular rest days within your training week. You will gain most from a training session if you perform it without residual fatigue from previous sessions. This goes for competitions too!

Myths and Facts about Weight Training

Myths	Facts
Strength training is unsafe for children	Strength training is less dangerous than most sports as long as qualified supervision is provided. Research highlights that strength training decreases the risk of injury.
Weight training stunts growth	There is no scientific evidence to support this statement.
Damage to the growth plates of bones	Growth plate fractures have never been reported in any competently designed scientific studies.
Children cannot increase strength until they enter puberty	Most strength gains are as a result of changes to the nervous system and not increased muscle tissue. Relative training-induced strength gains in children are comparable to those of adults.
Strength training is only for athletes	Outside of sport, strength training can: Increase bone health, improve body composition, decrease injury risk and improve psychosocial health.

Closing Statements

We hope you have found this information beneficial and we look forward to working with you throughout your time at Radley. Some past and present pupils from the school have already achieved sporting honours through representing their country or professional sports clubs. If you work hard, perhaps you could achieve similar sporting success.

HRW

If you have any questions, please don't hesitate to contact Harry Waine (hrw.waine@radley.org.uk).