

Resistance Training Exercises for LCPE https://learning.gaa.ie/LCPE/ResistanceTraining

#### Contents

Introduction	5
2 Warm-Up Options	
Warm-up 1	6
Warm-up 2	8
Upper Body Pushing	11
Upper Body Pulling	15
Lower Body	20
Core Stability	27

Please read the following disclaimer prior to proceeding and/or instructing your class with any training using the exercises detailed in this LCPE Resistance Training Exercises Manual

The GAA (Gaelic Athletic Association) confirms that all exercises in this manual have been designed by experienced strength and conditioning practitioners and advise that guidance should be provided by a qualified fitness professional or physical education teacher prior to the exercises being used in any exercise programme.

As with any physical activity, exercise and fitness activities involve a risk of injury and participation is engaged upon at one's own risk and by voluntarily participating in the exercise programme you are assuming responsibility for all risk of injury.

If you choose not to take advice or disregard any advice given, you do so voluntarily and accept liability for all resulting injuries and damage. By participation in the exercise programme you are declaring yourself to be physically sound and suffering from no condition, impairment, disease or infirmity or other illness. The GAA (Gaelic Athletic Association) always recommends that you consult with a general practitioner before beginning any exercise programme.

You, on behalf of yourself, your personal representative and your heirs, herby agree to release, waive, discharge, hold harmless, defend and indemnify the GAA (Gaelic Athletic Association) and its agents, officers and employees form any and all claims, actions or losses for bodily injury, property damage, wrongful death or otherwise which may arise out of your involvement and participation in the LCPE Resistance Training Exercises as set out in this manual.

#### Introduction

We live in an age when people are bombarded - and sometimes bewildered - with a constant array of messages, in relation to an increasing number of subjects from an ever-expanding variety of sources. Against this backdrop, it can often be difficult to see the wood from the trees even if it involves well-intentioned messaging around Wellbeing.

In this context, the importance of exercise can never be underestimated because "exercise is the best medicine". There is an increasing volume of Research, which testifies to the fact that "60 Minutes of Moderate To Vigorous Physical Activity Per Day" is a key requirement in this regard and the ultimate antidote to a whole array of health-related problems, which are usually the by-product of a sedentary lifestyle.

The impact of exercise is optimised when it is underpinned by a level of fitness, which derives from Resistance Training. This booklet sets out - in an easy to use manner - the 5 Key Movements and 5 Desirable Movements - along with a series of Progressions and Regressions - that can be undertaken with a minimum of equipment and fuss by people who are not actively involved in formal sport.

For those who are, they have the added advantage - and benefit - of being able to incorporate these movements into Warm-Up Routines thereby reducing the risk of injury.

A number of additional exercises have added for the purposes of ensuring that these are congruent with the Learning Outcomes set out in the Syllabus for Leaving Cert PE (LCPE). While changing behaviour is never easy, I believe that this booklet will play a very important role in ensuring that best practice resistance training is the norm and that this will backbone a generation who fully committ to the benefits of 60 minutes of Moderate to Vigorous Physical Activity.

Somebody once said that the "future is not something that happens in that it is more a case of making things happen". If so, let this be the future by making it happen now.



Pat Daly GAA Director of Games Development & Research



### Warm-Up 1

## 1. Mini Band March



- Begin in athletic position with band around knees
- March forward with 10 deliberate steps
- March backwards with 10 deliberate steps
- March to the left with 10 deliberate steps
- March to the right with 10 deliberate steps

#### 2. Bear Crawl



- Start in crawling position
- Keep knees as close to the ground as possibly without touching
- Keep abs braced throughout as you move slowly forward
- Imagine there is a glass of water on your back that you can't spill

#### 3. Hip Bridge



- Lay on back, feet hip width apart
- Push through hips and heels
- Hold at top for 2-3 seconds

#### 4. Side Plank



- Lay on side with elbow directly under shoulder
- Raise hips so body is in straight line
- Hold for 10-15 seconds



- Step forward with left foot
- Drop left elbow towards left knee
- Push left knee away from hips
- Drop elbow towards ankle
- Hold for 3-5 seconds

#### 6. Lying Reach Around



- Begin lying on side with knees bent in front of hips
- Hands together in front of face
- Raise top hand around in a circle as far as it can go
- Rotate head by watching top hand throughout movement



#### 7. Single Leg RDL



- Stand tall on right leg with left leg raised
- Slight bend in standing leg
- Push left heel back while slowly leaning forward
- Keep going until heel and head make a straight line that is parallel to the floor
- Return to starting position



### Warm-Up 2

### 1. Mini Band March



- Begin in athletic position with band around knees
- March forward with 10 deliberate steps
- March backwards with 10 deliberate steps
- March to the left with 10 deliberate steps
- March to the right with 10 deliberate steps

#### 2. Front Plank



- Rest on forearms with elbows directly under shoulders
- Straight line from heels to head
- Keep tummy and glutes braced
- Breathe normally throughout



- Lie on back with knees bent and 1 leg raised
- Raise hips by pushing through glute and heel
- Pause at top for 2 seconds

### 4. Bird Dog



- Begin with hand on ground under shoulder and knees under hips
- Keep abs braced and breathe normally
- Raise right leg and left arm until they run in a straight line
- Repeat on opposite side

#### 5. Hip Stretch



- Begin with right knee and left foot on the ground
- Straight line from right knee through hip up to head
- Squeeze right glute until you feel a stretch at front of right hip
- Hold for 3-5 seconds

#### 6. Kneeling Reach Around





- Begin with hands and knees on ground
- Place right hand behind right ear
- Maintain tightness throughout abs while raising right elbow towards the sky
- Return to beginning position



- Stand tall on right leg
- Use a partner or hurl for balance
- Swing left leg forwards and backwards while remaining tall
- Keep leg moving in straight line
- Maintain full control of swinging leg throughout



# Exercise Categories

## **Upper Body Pushing**

Upper body pushing exercises primarily involve the extension of upper body joints such as elbows and shoulders.

The primary muscles worked (agonists) are pectoralis, anterior deltoid and triceps.

Anything that involves a "pushing" action through horizontal or vertical planes can be included in this category.





## **Exercise Categories**



- 1. Straight line ankle, knee, hip, shoulder and head throughout. Hands directly beneath shoulders, shoulder blades back and down, back flat
- 2. Lower body by bending at elbows entire body moving as one
- 3. Elbows tucked close to body should make a 45 degree angle when viewed from above
- 4. Go as low as you can, aiming to get chest to brush the floor
- 5. Keep core engaged, push back up into starting position, back flat throughout



MOVE TO: 3 x 10-15 reps



## PUSH UP Regression = From Knees





- 2. Knees bent, feet in air behind
- 3. Lower body, bending at elbows, back flat throughout
- 4. Elbows tucked close to body, avoid sticking bum in the air
- 5. Go as low as you can, aiming to get chest to brush the floor
- 6. Keep core engaged, push back up into starting position, back flat throughout



**PUSH UP Progression = Pause at Bottom** 

- 1. Complete phases 1-4 outlined for the push up (other side of card)
- 5. At bottom pause and hold this position for 3-5 seconds
- 6. Keep core engaged, push back up into starting position, back flat throughout



MOVE TO: 3 x 12-16 reps







## **Exercise Categories**

#### **Upper Body Pushing**

**TRICEP EXTENSION** 







- **1. Begin lying supine on bench**
- 2. Weight in hands held directly over shoulders
- 3. Slowly hinge at elbows until weight comes close to top of head
- 4. Push weight back up until arms are fully straight
- 5. Breathe throughout movement
- 6. Use either dumbells or a barbell

LCPE Resistance Training Exercises Exercise Categories

## **Upper Body Pulling**

Upper body pulling exercises primarily involve the flexion of upper body joints such as elbows and shoulders.

The primary muscles worked (agonists) are latissimus dorsi, posterior deltoid, lower trapezius, romboids and biceps.

Anything that involves a "pulling" action through horizontal or vertical planes can be included in this category.





## **Exercise Categories**

#### **Upper Body Pulling**

#### **INVERTED ROW**









- 1. Slightly wider than shoulder width grip, hanging underneath, hands directly under shoulders, arms fully extended, heels on ground, legs fully extended
- 2. Straight line head, shoulder, hips, knees & ankles/heels
- 3. Bending at elbow, pull chest to bar, legs remain straight – begin pulling with upper back, not arms
- 4. Hold at top when chest touches bar/ broom
- 5. Keep core engaged, slowly return to starting position





#### INVERTED ROW Regression = Bent Knees

2 x 6-8 reps



MOVE TO: 3 x 8-10 reps



<u>3 x</u> 10-15 reps

## **Exercise Categories**

#### **Upper Body Pulling**

SINGLE ARM ROW





- 1. Begin with left knee and left hand on bench
- 2. Straight line from hips to shoulders
- 3. Hold weight in right hand with straight arm
- 4. Lift weight by pulling elbow up and back until level with spine
- 5. Keep core engaged, slowly return to starting position

#### **BICEP CURL**





- 1. Begin by standing tall with weight in both hands
- 2. Hold weight about shoulder width apart
- 3. Raise hands up to shoulders without moving upper arms (elbow flexion)
- 4. Slowly lower weight back to starting position.
- 5. Breathe throughout movement
- 6. Use either dumbells or a barbell







Lower Body

## Lower Body

Lower body exercises are focused around the ankle, knee and hip joints. These generally comprise of complex movements which involve the use of 2 or more joints at one time.

The key muscles used (agonists) are Glutes, hamstrings, calves and quads.





- 1. Weight at chest level, feet hipwidth apart, keep feet flat on ground
- 2. Ankle, knee & hip in alignment, neutral spine
- 3. Slowly sit back and down, bending hips, knees & ankles, keeping chest & head up
- 4. Go as low as you can keeping feet flat, try get hips below knee
- 6. Knees pushed out all the time can use elbows to push knees out when down low
- 7. Return to standing position



MOVE TO: 3 x 10-12 reps





## **Exercise Categories**





MOVE TO: 3 x 8-10 reps





- 1. Stand tall on band, feet shoulder width apart, band over shoulders & behind neck
- 2. Slight bend in knees
- 3. Slowly push hips backward by hinging at hips, keep spine straight & tighten stomach
- 4. Go as far as you can control through hamstrings and lower back
- 5. Hold for a moment, 1-2 seconds
- 6. Slowly return to starting position

## **Exercise Categories**

## Lower Body LUNGE



- 1. Begin in neutral stance with feet hip width apart, knees and hips aligned
- 2. Step forward with 1 leg
- 3. Shoulders remain above hips throughout
- 4. Front knee above ankle & not extended beyond toes
- 5. Back knee below hips. Neutral spine
- 6. Front foot stays firmly planted
- 7. Can hold weight in hands (dumbbells)



MOVE TO: 3 x 6-8 reps e/s





Gàà

HIP HINGE Regression = Body Weight Hip Hinge



## Core

The primary function of the core is to stabilize both the spine and hip structures. It comprises all of the muscles that support both structures. It is a lot more than just the "abs".

Correct engagement of primary muscles is key to developing a strong and functionally competent core.

A mixture of exercises to address both posterior and anterior muscle groups have been included.





## **Exercise Categories**



- I. Rest on forearms parallel to floor, elbows directly under shoulders, shoulder blades back and down, hands apart
- 2. Straight line from ankles/heels to knee, hip, shoulder and top of head, keeping back flat
- 3. Keep glutes squeezed and abs braced to prevent bum from sticking up, or back sagging in middle
- 4. Maintain normal breathing throughout exercise



MOVE TO: 3 x 40-60 secs



#### **PLANK** Regression = Shorter Time





## **Exercise Categories**



- 1. Start on side, feet together, elbow directly under shoulder, balancing on side of foot
- 2. Straight line from ankle, knee, hip, shoulder and head, shoulder blades back and down
- 3. Hold position by squeezing glutes and bracing abs
- 4. Repeat on opposite side



MOVE TO: 3 x 40-60 secs e/s



#### SIDE PLANK Regression = Shorter Time



- 4. Hold position by squeezing glutes and bracing abs
- 5. Repeat on opposite side



MOVE TO: 3 x 40-60 secs e/s







## **Exercise Categories**



- 1. Lie on back, arms out to side, knees bent, heels flat on floor
- 2. Straight line knee, hip, shoulder & head. Raise one leg into air – hip flexion
- 3. With one leg raised, raise hips by squeezing glutes & bracing abs
- 4. Hold at top with hips balanced
- 5. Slowly lower hips back to floor, keeping leg raised
- 6. Maintain normal breathing throughout



MOVE TO: 3 x 6-8 reps e/s



SINGLE LEG BRIDGE Regression = 2 Leg Iso Hold



SINGLE LEG BRIDGE Progression = 1 Leg Iso Hold

- 1. Lie on back, arms out to side, knees bent, heels flat on the floor
- 2. Raise one leg into the air
- 3. Straight line knee, hip, shoulder & head. With one leg raised, raise hips by squeezing glutes & bracing abs
- 4. Hold at top for approx. 10 seconds
- 5. Slowly lower hips back to floor, keeping leg raised
- 6. Maintain normal breathing throughout



MOVE TO: 3 x 6-10 reps





## Notes






