# ‘ Injury Prevention, Effective Warm Ups & Recovery Methods’

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# Injury

Murphy, O'Malley et al (2012) described the incidence of injures in elite male Gaelic football players over 4 consecutive seasons.

A sample of 851 players were tracked and a total of 1014 injuries were recorded.

- Cromwell, Walsh et al. (2000) suggested that male Gaelic footballers sustain 1.78 injuries per year.
- More recently, Wilson, Caffery et al. (2007) suggest 2.20 injures per year.
- O'Connor, Siobhán, et al. (2015) reported 9.26/1000 hours training.

# Why the increase in injury??

- **Increase in demands** training hours / training methods (gym/ field) other commitments

- The demands of this sport:
  **short repeated sprints, rapid acceleration and deceleration, changes of direction, a large number of physical collisions and tackles** and an ability to produce high muscular force extremely rapidly.

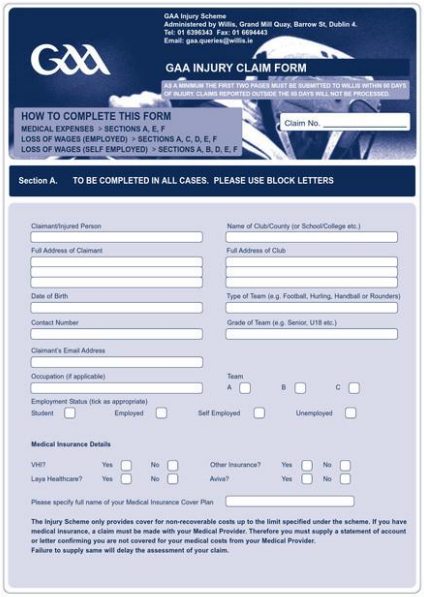
- These results imply an upward trend in injury for In Gaelic footballers, warranting the need for a greater interest in the multifactorial aspect of injury prevention.

# Impact of injury

- In elite level Gaelic football, injury prevention is of the upmost importance given the negative outcome borne out in;

- reduced performance
- Overall success of the team
- The long term health of players.
- Psychological impact of injury
- financial impact

- (2011) A total of 5,992 claims cost the GAA's Players' Injury Scheme €8m last year


GAA Injury Scheme
Administered by Willis, Grand Mill Quay, Barrow St, Dublin 4.
Tel: 01 6396343 Fax: 01 6694443
Email: gaa.queries@willis.ie

GAA INJURY CLAIM FORM

AS A MINIMUM THE FIRST TWO PAGES MUST BE SUBMITTED TO WILLIS WITHIN 90 DAYS OF INJURY. CLAIMS REPORTED OUTSIDE THE 90 DAYS WILL NOT BE PROCESSED.

HOW TO COMPLETE THIS FORM
MEDICAL EXPENSES > SECTIONS A, E, F
LOSS OF WAGES (EMPLOYED) > SECTIONS A, C, D, E, F
LOSS OF WAGES (SELF EMPLOYED) > SECTIONS A, B, D, E, F

Claim No.

Section A. TO BE COMPLETED IN ALL CASES. PLEASE USE BLOCK LETTERS

Claimant/Injured Person
Name of Club/County (or School/College etc.)
Full Address of Claimant
Full Address of Club
Date of Birth
Type of Team (e.g. Football, Hurling, Handball or Rounders)
Contact Number
Grade of Team (e.g. Senior, U18 etc.)
Claimant's Email Address
Occupation (if applicable)
Team A B C
Employment Status (tick as appropriate)
Student Employed Self Employed Unemployed

Medical Insurance Details

VHI? Yes No Other Insurance? Yes No
Laya Healthcare? Yes No Aviva? Yes No

Please specify full name of your Medical Insurance Cover Plan

The Injury Scheme only provides cover for non-recoverable costs up to the limit specified under the scheme. If you have medical insurance, a claim must be made with your Medical Provider. Therefore you must supply a statement of account or letter confirming you are not covered for your medical costs from your Medical Provider.
Failure to supply same will delay the assessment of your claim.

# Causes of Injury

- Intrinsic
  - Previous injury
  - Age
  - Gender
  - Height/weight
  - Genetics
  - Nutrition
  - Flexibility
  - Strength/ muscle imbalance
- Extrinsic
  - Footwear
  - Surface
  - Equipment (Hurl)
  - Taping
  - Opposition
  - Level of competition
  - Sport specific skills
  - Weather/ enviroment

# Causes of injury

- Gabbett and Ullah (2012) say that a considerable proportion of injuries sustained by team sport athletes are:

non-contact, soft tissue injuries that occur as a result of excessive training loads , inadequate recovery and overtraining.

# Following the FIFA 2014 World Cup, McCall, Davidson et al. (2014) carried out a study risk factors for and prevention of injury

- This study concluded that:

  fatigue, reduced recovery time, a congested match schedule, training load prior to the world cup and the number of matches played during the club season

being the top risk factors for injury

# Overuse injures

- Improvement in athletic performance is *highly correlated* to the training load of the athlete and to the alteration between periods of intense and light training

- Sport participation characteristics in high level sports require careful modulation of both training volume and intensity, in short and long term to help athletes reach their highest performance level

# Training load and injury

- Gamble (2013) say that it is common for prescription of training for elite team sport athletes to be based upon measures of workloads derived from training and competition demands.
- limiting the athlete's level of fatigue via the reduction of workload will result in a decreased likelihood of injury
- **Although...**
  Some studies suggest that reducing the level of workload or inadequate training stimulus could potentially increase injury risk, result in the development of substandard physical qualities and reductions in playing performance

# Injury prevention

- Neuromuscular control, the ability of muscle to respond to afferent proprioceptive information to maintain joint stability (, when running on an uneven surface, cross-country runners require their lower extremities-especially their ankles-to adjust to the ground to prevent falls and injuries

- Flexibility, improve range of motion at the joint to improve motor performance and skill execution.

- Strength benefits are well documented that it reduces MSK injuries. More capable of withstanding high forces.

- Endurance

- Stability and control

# Common injures

- Concussion
- Hamstring
- Hip&groin
- Acl
- Ankle

# Assessment of players

- Functional movement screening
- High/ low load endurance
- Manual testing (Hip/ thoacic spine ROM/ soft tissue and joint range of movement)
- Gait (hip/arm swing/ weight bearing/ feet)
- Movement patterns (squat/ Lunge/ OH shoulder press/ RDL)

# Rehabilitation

- Eduate ( player, parents, coach)
- Support
- Therapeutic graded exercises
  - Corrective
  - Normalise
  - Joint strength
  - Increase endurance

- Manual therapy
- S& C goals
- Team work

# Rehab Progression

Control/ Co-ordination/ Proprioception

↓

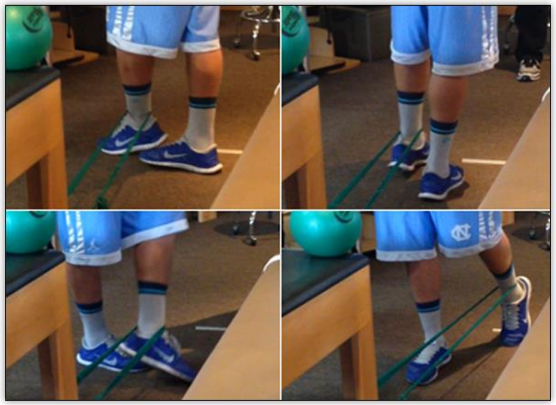
Endurance

↓

Strength

↓

Skill



# Effective warm ups

- Gabbett (2004) reports the obvious challenge for coaches to develop game-specific programs that provide an adequate training stimulus to:

  enhance physical fitness and performance, without unduly increasing the incidence of injury

# Effective warm ups

- Suited to athlete and their demands
- Highly motivating
- Sport specific stresses
- Entire team involvement.


- A dynamic GAA warm-up
- SINI and Ulster council. (uniform warm-up)
- For use by coaches of players from 14 years to senior grade.

Warm ups allow the coach an opportunity to regularly expose squads to injury prevention exercises. Warm-ups facilitate the "switching on" and **activation** of the correct muscles and motor patterns in preparation for intense activity.

comprised of three phases designed to enhance performance and reduce injury. All three phases should be performed on training nights, with only phases 1 and 3 performed before games. Phase 2 has two circuits which should be alternated monthly.

developed by Sports Institute Northern Ireland (SINI) and Ulster GAA for use by coaches of players from 14 years to senior grade.

Three phases designed to enhance performance and reduce injury.

All three phases should be performed on training nights, with only phases 1 and 3 performed before games

- **Phase 1**: Running, Cutting and Landing Mechanics
- **Phase 2**: Strength, Plyometrics and Balance
- **Phase 3**: Agility and Power

- Gabbett, Whyte et al. (2014) suggested how high playing loads develop the physical qualities, critical to prepare players for the physical demands of competition and in addition, develops the mental durability required to tolerate the 'fatigue' that presents during week to week competition

- In theory, high playing loads offer a protective effect, as players with well developed physical qualities are at a reduced risk of injury

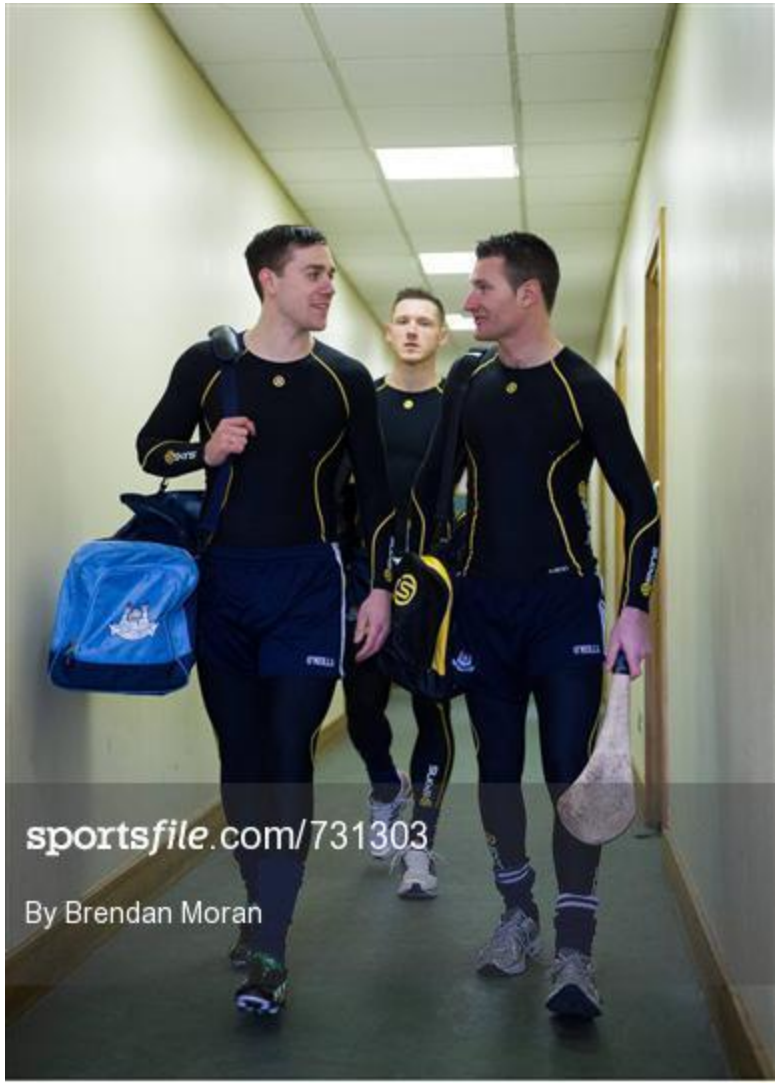
# Recovery methods

- **Depending on the type of training**. (e.g. Aerobic/ weight training)

  Low intensity can be done freq, no/little recovery required.

- **Team, approach** (player/ management/ coaches/ physiotherapist/ nutritionist)

- Protect Injury
- Rest
- ICE
- Compression
- Optimal loading
- Hands on therapy
- Nutrition



# The end

- Any Questions???