



# Physical Fitness for Developing Players (12-16 years)

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**O'NEILLS**

2009 Ulster GAA Coaching &  
Games Development Conference

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Glenavon House Hotel



# Aims and Objectives



By the end of this session the coach will be able to:

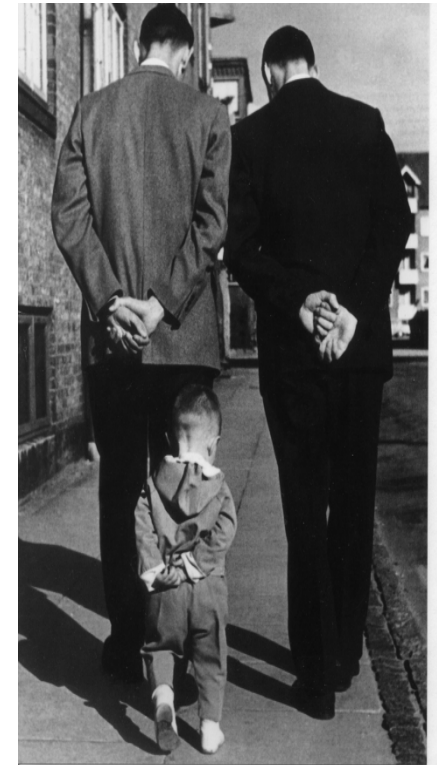
- Identify the components of physical fitness and their importance in gaelic games
- Recognise the Train to Train stage (u16s) of the Long Term Player Pathway and how the focus is on player development
- Implement practical ways to build fitness into games and skill development for u12,u14 and u16s



# Physical Fitness for Developing Players



- We will examine some definitions of **Physical fitness?**
- **Developing Players** – We have to look at the overall development of the player so that he/she is ready to take the next step up to minor and senior teams.
- **Role of Coach**  
Creating GOOD Habits for future years  
Players need to be led at this stage of their playing careers



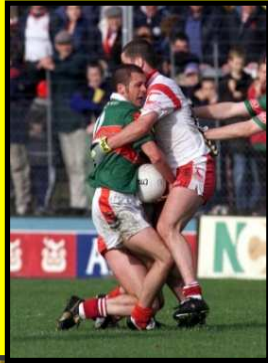
# Ulster Council – LTPD Model



## Retention not Retirement

**Training for Excellence**

International and Inter Provincial  
Senior County and Club  
Sports Institute NI



**Training to Win**

County and Club U21 Squads,  
Further and Higher Education



**Training To Compete**

County Development Squads U15, 16, 17  
School & Club 18

**Training To Train**

Secondary Education U12- 16  
Club U16



**Learning to Train**

Primary School P 6-7  
& Club U12

**FUNdamentals**

Primary Schools P 3-5  
& Club U9



**ACTIVE Kids**



# Physical Fitness



What do we mean by Physical Fitness???



“The ability of the whole body, including the muscles, skeleton, heart and all other parts to work efficiently at all times” (Carbon and Lindsey)

**Physical Fitness in sport is.....**

“The ability to perform the underlying techniques and to respond quickly to the signs / sounds experienced during the game. It will require a combination of stamina, strength, speed, skill and flexibility”

Reasons...run at varying speeds, jump to catch, strength on the ball and off the ball, to be free from injury.



# Physical Fitness





# Physical Fitness



## Components of Physical Fitness

- 1. Cardiovascular Fitness (Stamina)
- 2. Muscular Strength
- 3. Muscular Endurance
- 4. Flexibility
- 5. Motor Fitness – Speed, Power, Agility etc....





# Physical Fitness



- **FITT Principle**

- **F** – Frequency.....How Often
- **I** – Intensity .....How demanding
- **T** – Time.....How Long
- **T** – Type.....Activity



Overload appropriately with adequate recovery will result in improved performance

Overtraining with inadequate recovery will result in decreased performance



Burnout



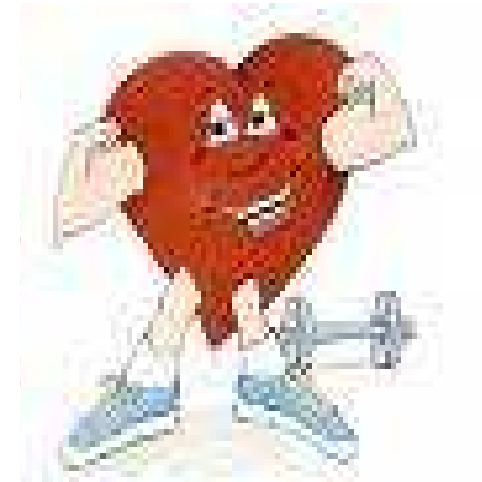




# Physical Fitness



- **Cardiovascular Fitness (Aerobic Exercise)** is the “Ability of the heart, lungs and circulatory system to deliver oxygen to working muscles”
- **Heart Rate (beats per minute)**
  - Resting Heart Rate (bpm)
  - Max Heart Rate  $220 - \text{age}$   
or  $208 - (0.7 \times \text{age})$   
or 20metre shuttle run (most accurate)



Training zone is  
75-90% Max  
Heart Rate

Typical 16 year old has max heart rate of 196.8bpm.  
To effectively improve cardiovascular fitness players  
Heart Rate training zone should be 147 – 177bpm  
(75%-90% maxHR)

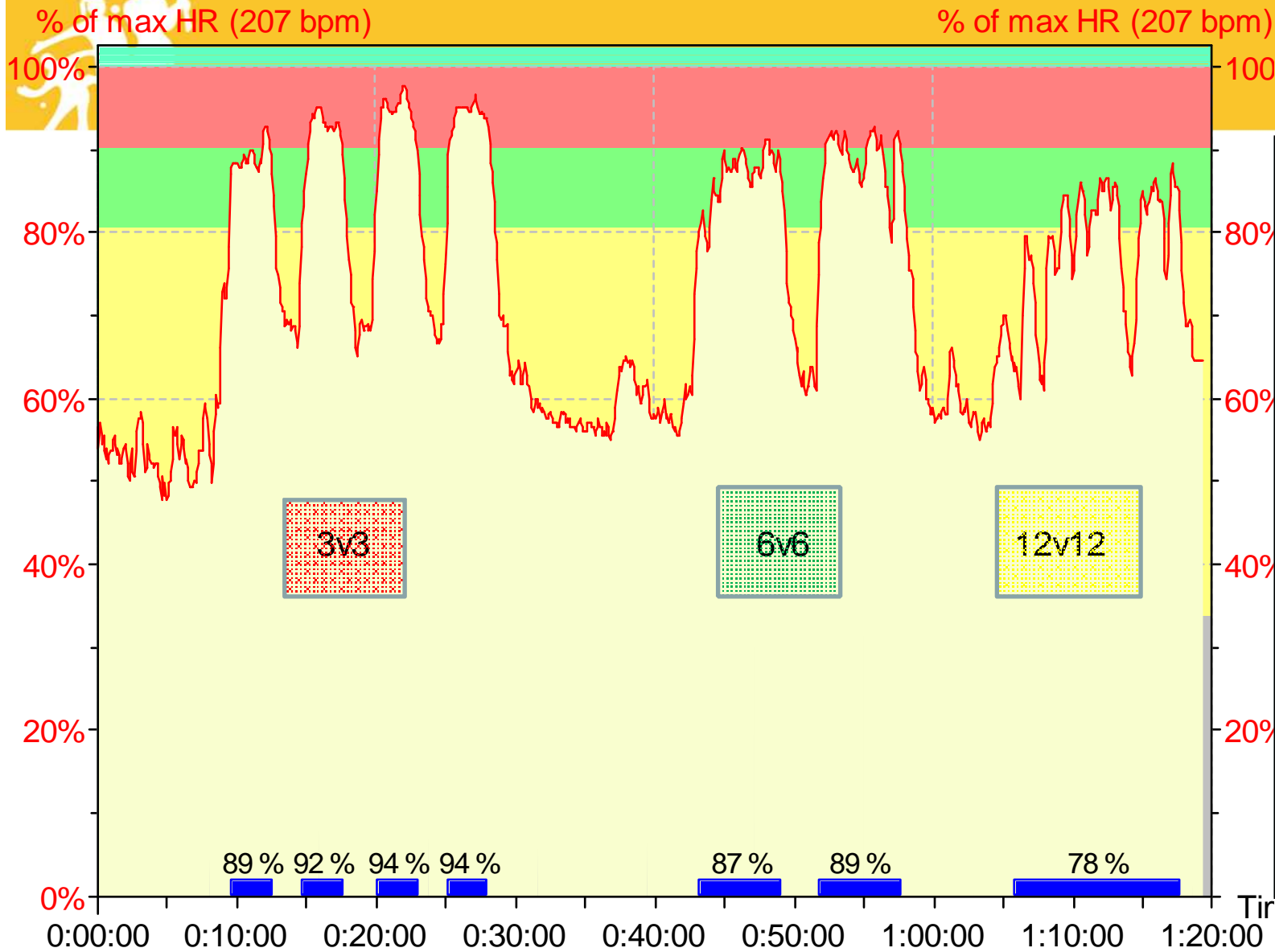


# Physical Fitness



- **How can we relate this to training sessions?**
- Sessions and activities should be designed to get players into this training zone. It sounds scientific and technical but this can be recreated through drills and games. You don't have to run lads around a field to get them in the zone.
- Heart Rate will increase in proportion to the intensity of the activity





**High intensity of small sided games**  
**Can be used by coaches to develop Fitness levels**

3V3 elicits a HR response above 90% of max

6v6 shows the intensity is reduced to under 90% of Max

12 v 12 shows the intensity is reduced to under 70% of Max





# Physical Fitness



## STAMINA

- We can develop players stamina/cardiovascular fitness by incorporating small sided conditioned games and high intensity ball drills into our training sessions



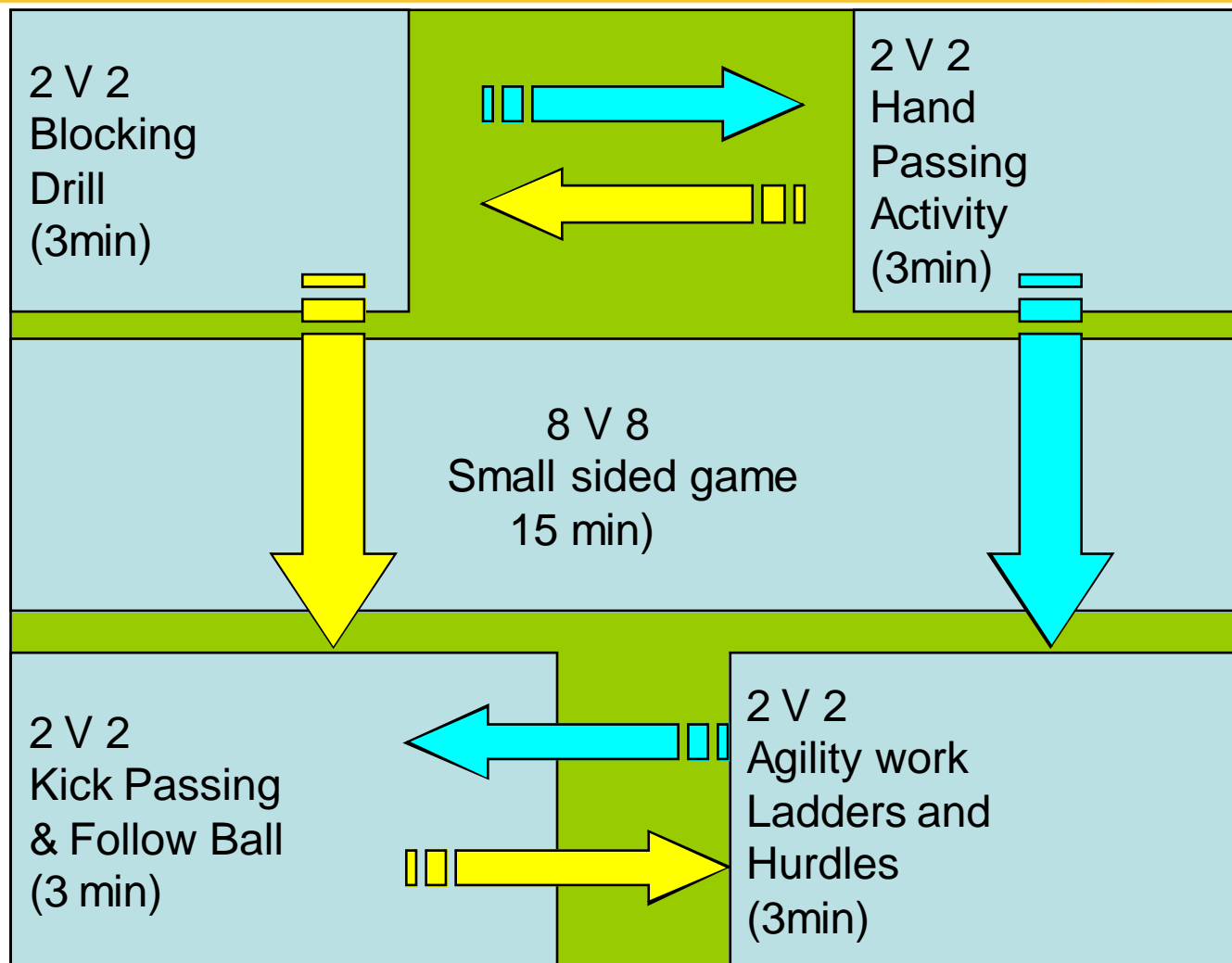
12-16 years is ideal age to build an aerobic base



# Example of on pitch stamina circuit



**Stamina GAA Circuit - 30 minutes,**  
.1 minute for switching between activities  
.Group A in corners and Group B in the game.  
.Group A rotates every 3 min  
.Group B in middle for 15 min - then switches with Group A





# Physical Fitness



- **Flexibility**

“Maximum range of movement possible around a joint or a series of joints”



## How can we improve flexibility?

## STRETCHING

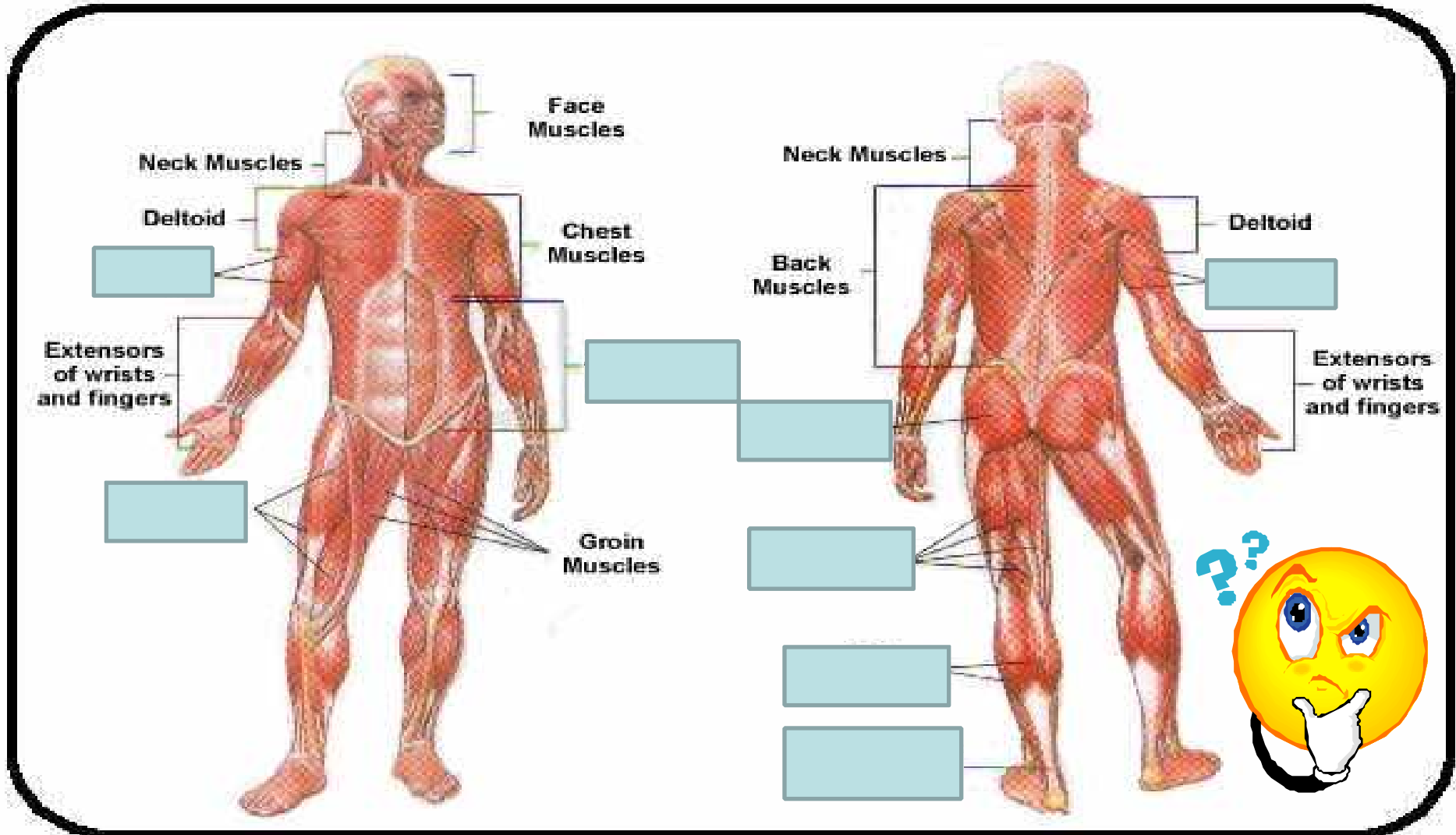
- **Dynamic** – Sport specific movements to stretch muscles
- **Static**- Active and Passive
- Muscles should be warmed up before stretch e.g. after mobilising and pulse raising activities
- Benefits -reduce likelihood of stiffness, muscle soreness and injury.



Focus on technique

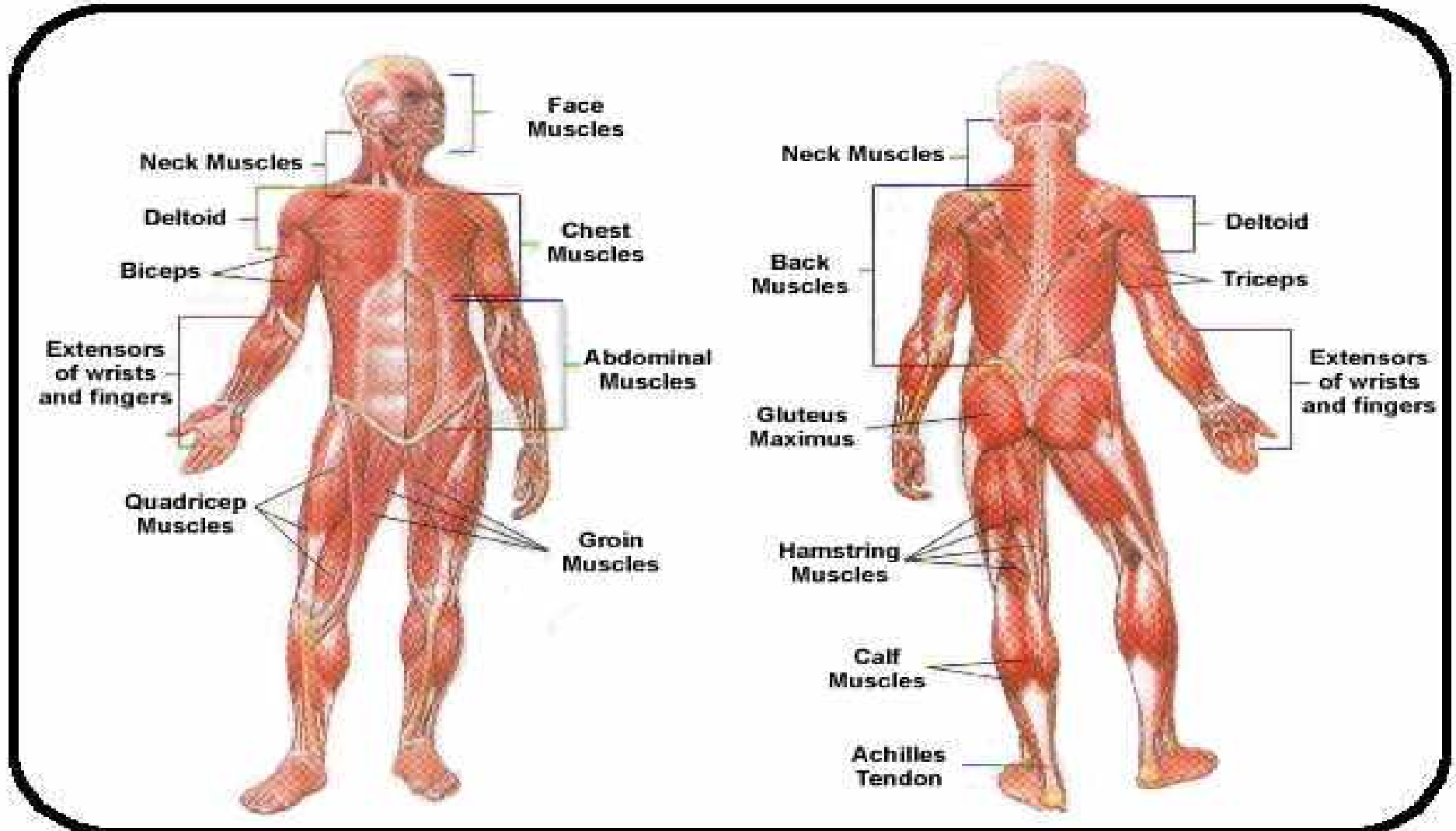


# Muscles of the body





# Muscles of the body







# Static Stretches



Calf



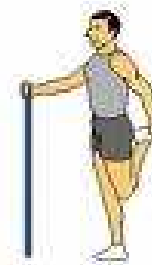
Hamstring



Hip flexor



Quad



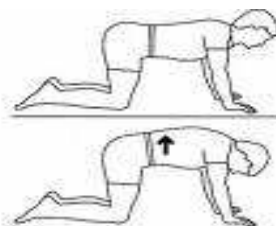
Groin



Gluteal muscles



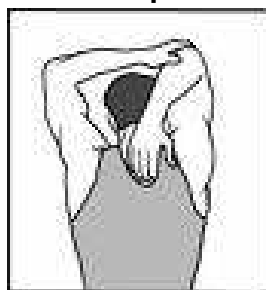
Lower Back



Lower back



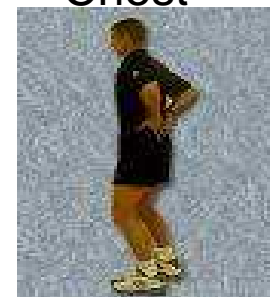
Triceps



Shoulder



Chest

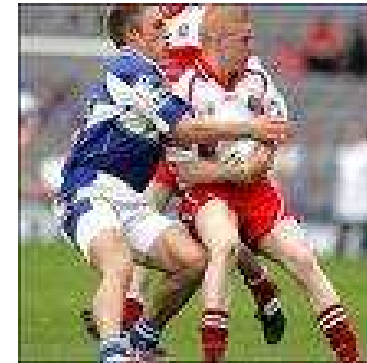




# Physical Fitness



- **Muscular Strength and Endurance**
- **Strength** – ability of a muscle or muscle group to exert max force against a resistance during a single exertion
- **Endurance** – Ability of muscle or muscle group to make repeated contractions against a resistance without tiring

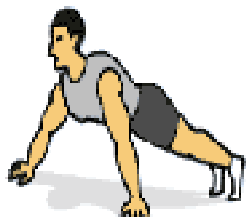




# Circuit Training



Press ups



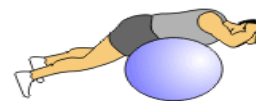
Fistpassing



Step ups



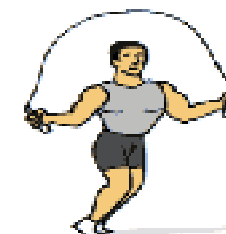
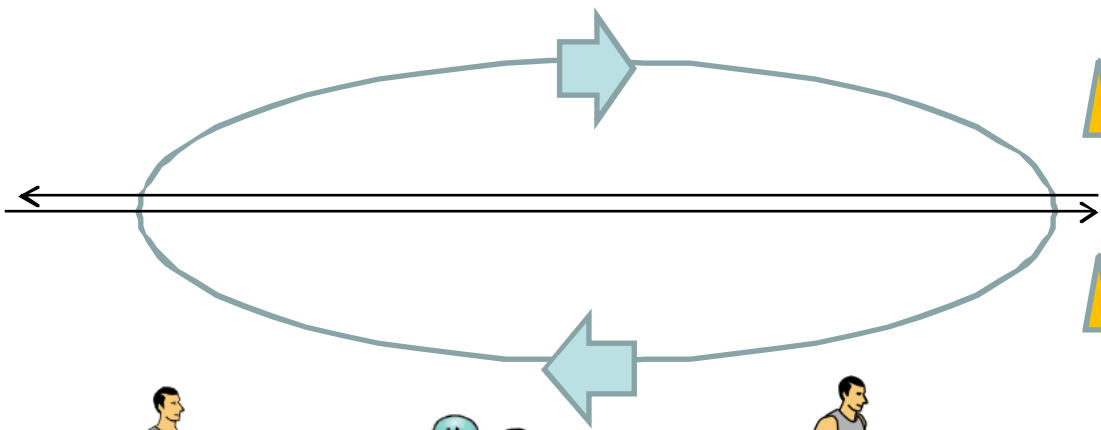
Back extension



Tricep Dips



Shuttle Run



Skipping



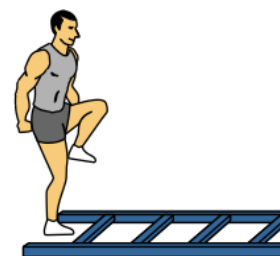
Sit ups



Lunges



Med Ball Throw



Ladders



High Catch



Long Term Player Development - MALE		Fundamentals			Learn To Train			Training to Train				Train to Compete		Train to Win		
DEVELOPMENT	Yrs.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>Stamina</b> Aerobic Base	M	◆	◆	◆	◆			☺	☺	☺	☺	☺	☺	☺		
<b>Speed Endurance</b> (short – sustained period)	M	◆	◆	◆	◆	◆					☺	☺	☺	☺	☺	☺
<b>Strength Endurance</b> (repetitions)	M	◆	◆	◆	◆	◆	☺	☺	☺	☺	☺	☺	☺	☺	☺	
<b>Maximum Strength</b> (one rep maximum)	M	◆	◆	◆	◆	◆	◆	◆	☺	☺		☺	☺	☺	☺	
<b>Speed Strength</b> (Power)	M	◆	◆	◆	◆							☺	☺	☺		
<b>Speed (efforts less than 5 secs)</b>	M		☺	☺	☺				☺	☺	☺	☺				
<b>Flexibility</b>	M	☺	☺	☺	☺	☺	☺	☺	☺	☺						

Not a Priority	Should be Avoided	Moderation	Optimal Training Age	As Needed
	◆		☺ 1 or ☺ 2	



# Physical Fitness activities for 12 year olds



- **Do**

1. Stamina
2. Strength Endurance
3. Speed
4. Flexibility

- **Don't**

1. Speed Endurance
2. Weight training
3. Power training

This is not to replace skill development but to compliment it.





# Suitable for u14 players



- **Do**

1. Stamina
2. Strength Endurance
3. Speed
4. Flexibility

- **Don't**

1. Speed Endurance
2. Weight Training
3. Power Training

PHV (Growth Spurt)

Girls 11-13yrs

Boys 12-14yrs

Window of opportunity to  
“build the engine” and  
develop stamina.





# Suitable for u16 players



- **Do**

1. Stamina
2. Strength Endurance
3. Speed Endurance
4. Speed
5. Flexibility
6. Intro to Weight lifting techniques

- **Don't**

1. Power Training (moderation)



Technique  
Focussed !

# Teaching Lifting Technique

Strength Development for Young Athletes (13 – 16yrs)



1.Prime Movers

2.Get Set Position

3.Range of Movement

4.Key Joint Alignment

5.Control and Breathing



Coach Technique with young people  
Use the bar only or  
Use a brush shaft  
Apply no weight initially  
Work on Form and Technique







# Core Stability



## What is core stability?

Core Strength and Stability provides the body with the **central control** that allows the player to **generate power** by maximising the efficiency of your muscular effort.

It is the ability of the trunk to **support the effort and forces** from your legs and arms, so that muscles and joints can perform in their safest, strongest and most effective position.



**Technique, technique, technique!!**



# Balance to kick

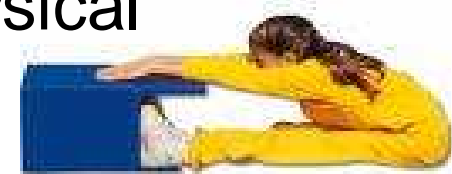




# Measurement of Physical Fitness



- Can we measure it?
- How do we measure components of physical fitness?
- Why do we measure fitness levels?
- **SHOULD** we be measuring fitness levels of 12-16 year olds? (Primary school project)





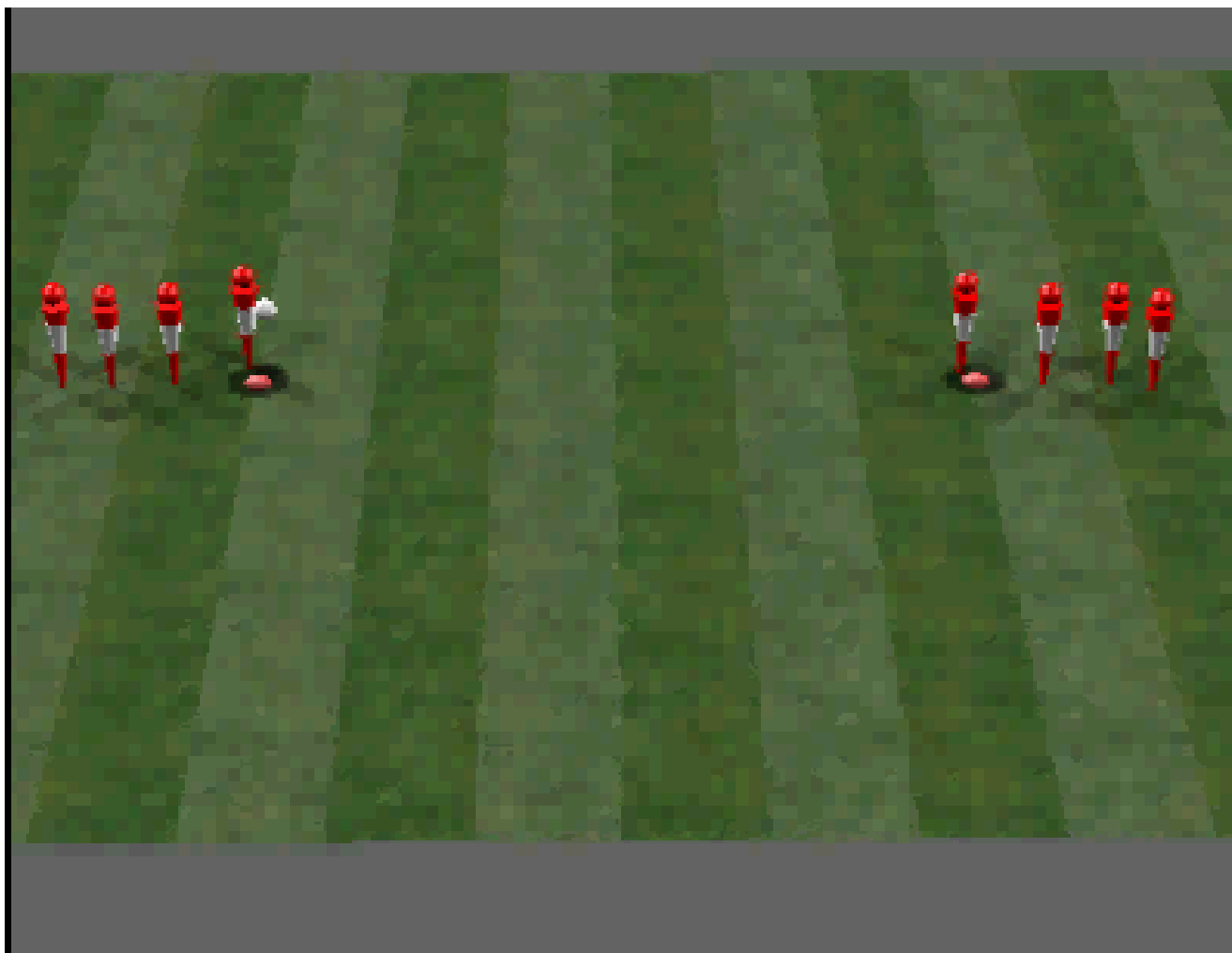
# Team Summary U16



Ulster U16 Football Development Squad			Dominance		Physical			Strength		Power		Speed			Agility	Flexibility	Endurance			
Player	County	Position	Arm	Leg	Standing	Sitting	Mass	RT	LT	VJ	Med-Ball	5m	10m	20m	(secs)	SAR	Level	Shuttle	MaxHR	
					Height (cm)		(kg)	(kg)		(cm)	(m)	(secs)				(cm)				(bpm)
1	Monaghan	HB	R	R	173.4	92.0	72.7	37.4	36.4	59	4.6	1.20	1.92	3.24	9.52	14	12	5	209	
2	Cavan	FB	L	R	180.5	91.4	68.7	49.6	54.1	57	4.9	1.13	1.91	3.19	9.66	4	11	10	205	
3	Armagh	HB	R	R	175.7	93.2	74.8	40.9	36.2	44	4.8	1.08	1.80	3.05	10.07	11	11	3	203	
					<b>Average</b>	177.6	92.9	69.0	43.5	42.9	54	4.5	1.14	1.90	3.20	9.77	9	12	2	200
					<b>Minimum</b>	163.0	84.7	53.0	28.4	27.9	36	3.7	0.99	1.66	2.81	8.62	-6	9	3	179
					<b>Maximum</b>	187.2	189.7	83.1	56.2	57.5	70	5.7	1.32	2.14	3.52	10.46	23	15	1	215



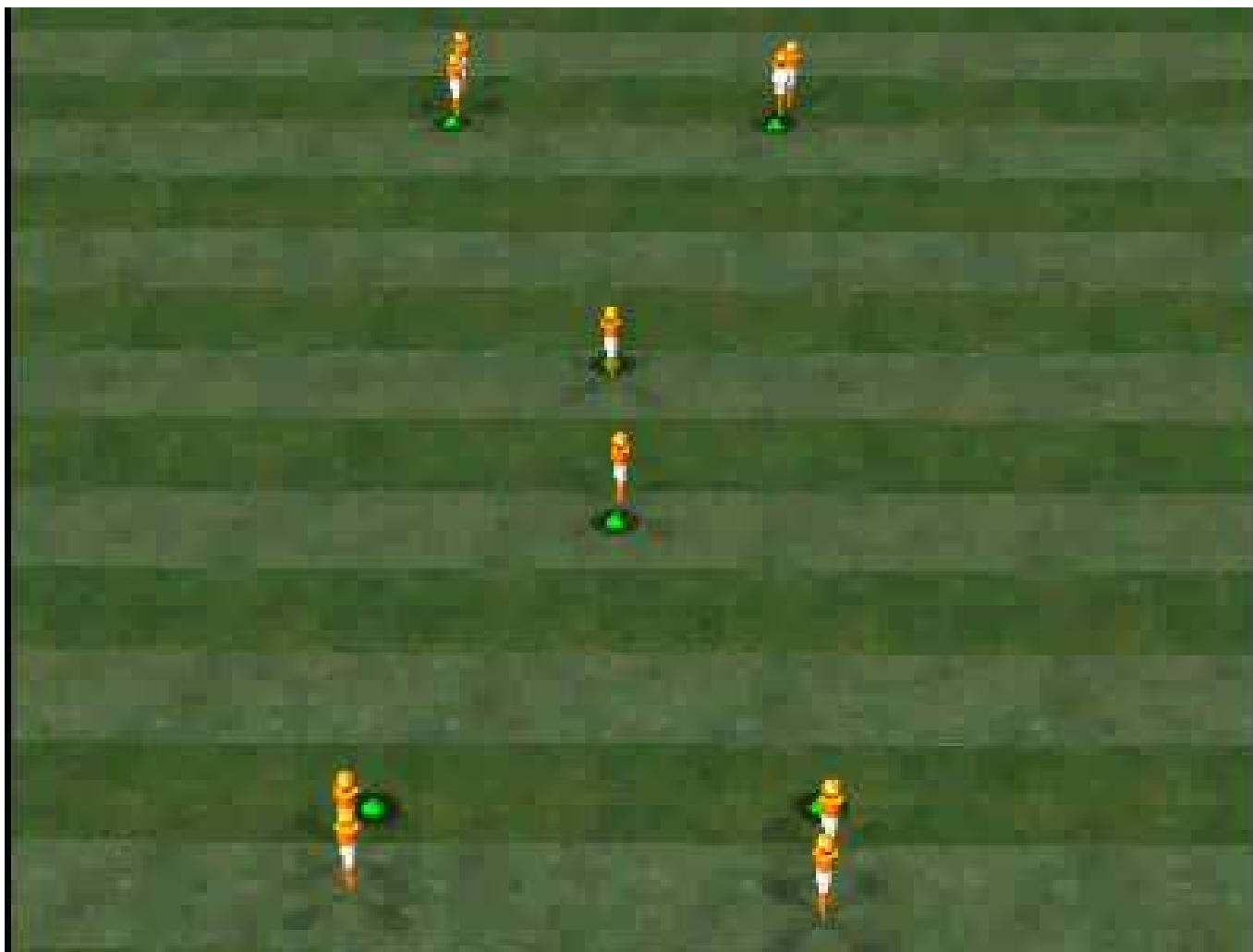
# Fitness with the football/sliotar



**Typical Kick  
or Hand Pass  
Drill**



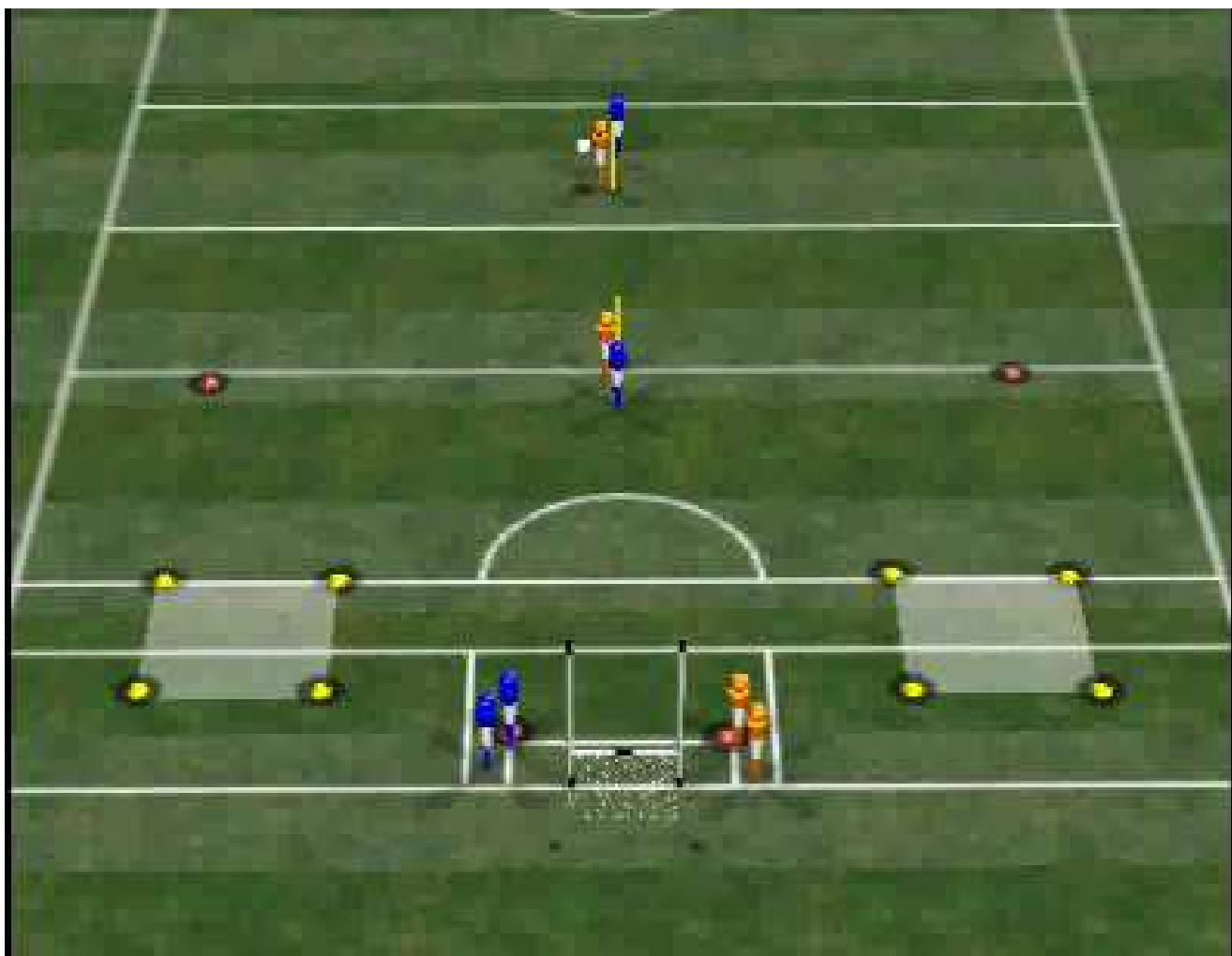
# Fitness with the football/sliotar



**Match Running  
Hand Pass Drill**



# Fitness with the football/sliotar

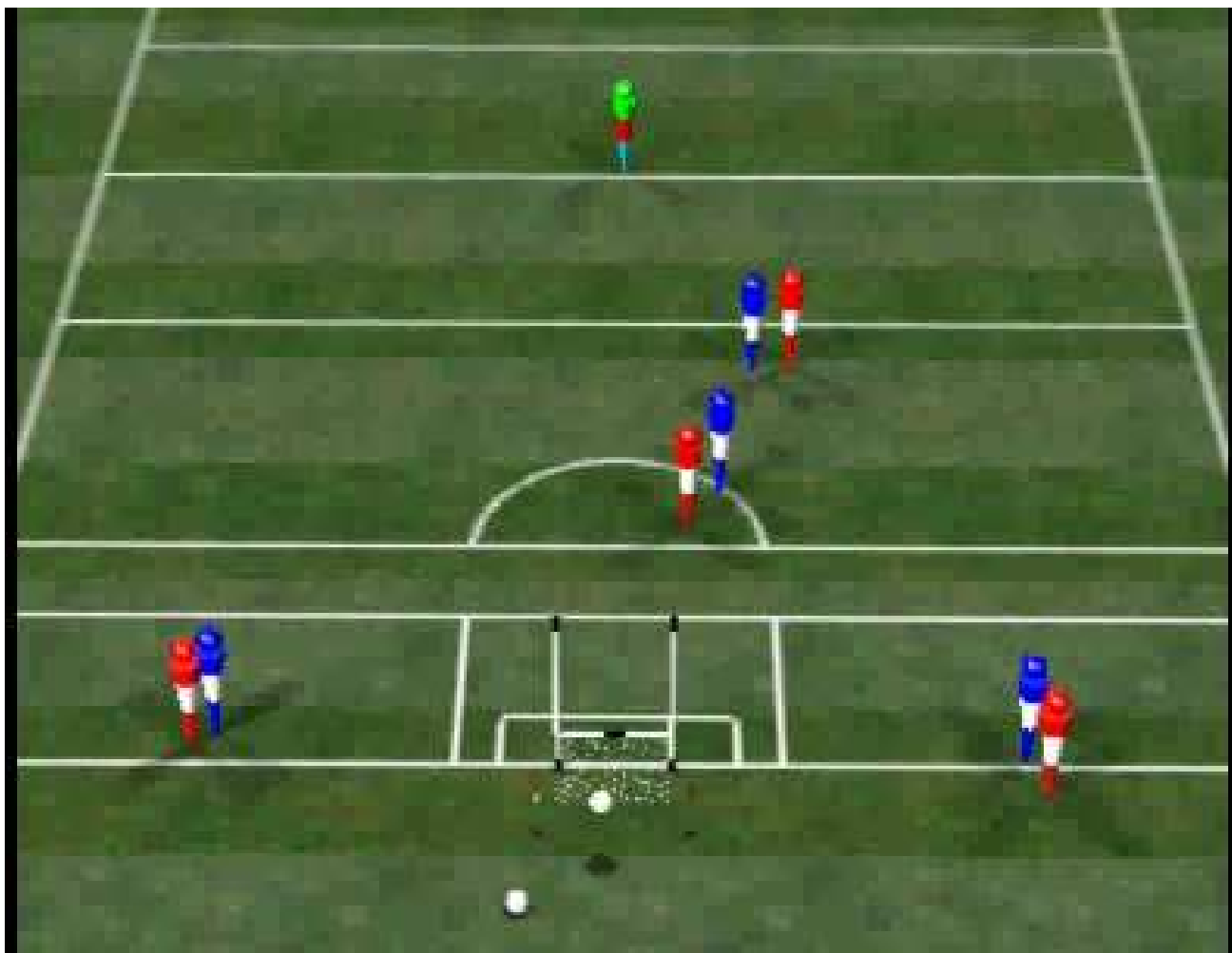


## Diagonal Kick pass drill

- Tactical
- Physical
- Skill focussed



# Fitness with the football/sliotar



**1 v 1 or 2 v 2  
(Heart rate in the  
training zone)**





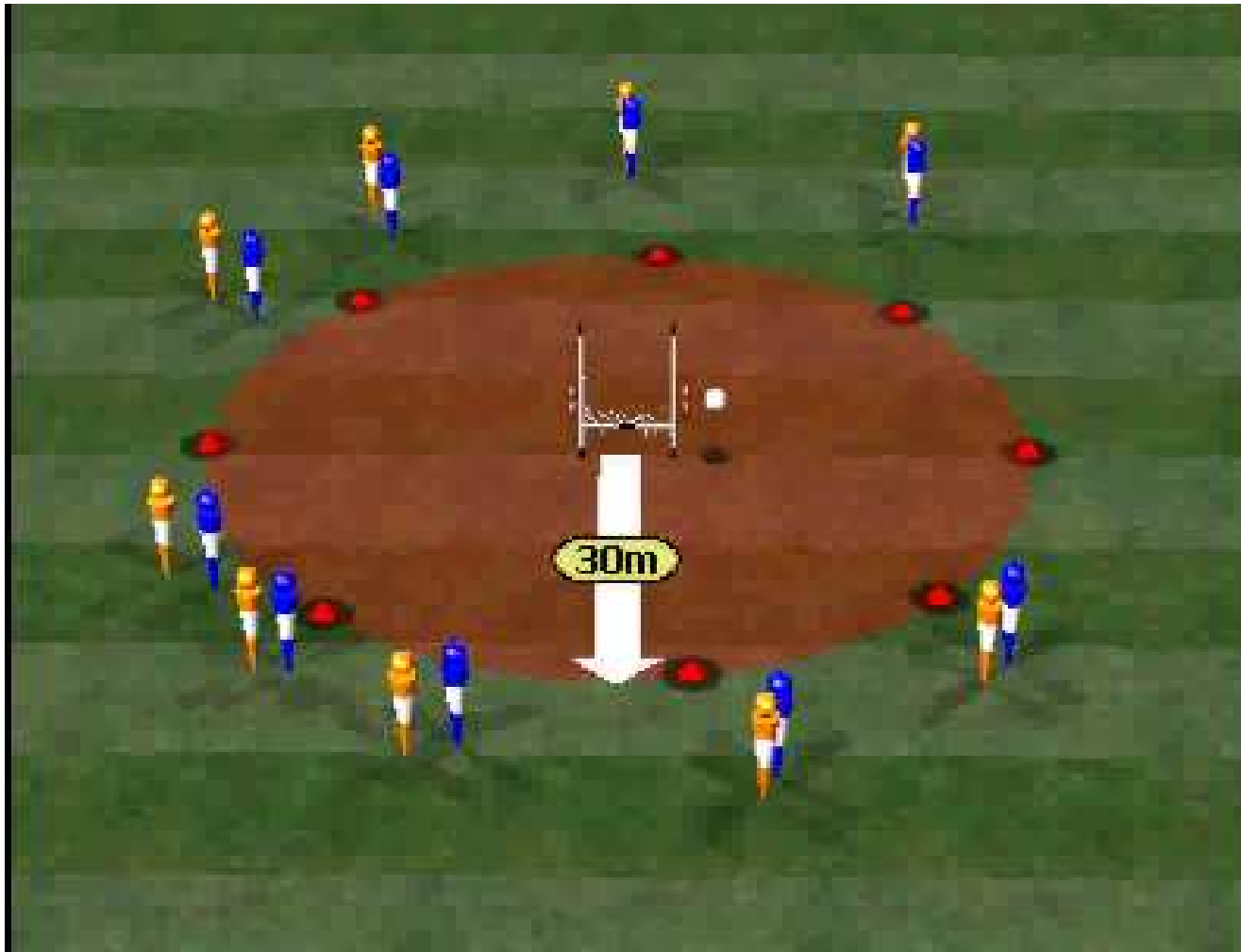
# Fitness with the football/sliotar



**GAME**  
**“Who Attacks**  
**Defends”**



# Fitness with the football/sliotar



**GAME**  
**“Circle Score”**



# The Journey that is Sport



The whole point of sport is not the winning but the journey itself.

It is what you learn on that journey.

It is about the people you meet.

The challenges you encounter.

It is about discipline and control.

It's about respect for others.

It's about the buzz of success.

It's about coping with defeat.

Its about the building of character.

It's about being yourself  
and about enjoying sport for sports sake.



# Aims and Objectives



By the end of this session the coach will be able to:

- Identify the components of physical fitness and their importance in Gaelic games
- Recognise the Train to Train stage (u16s) of the Long Term Player Pathway and how the focus is on the development of the player
- Implement practical ways to build fitness into games and skill development for u12, u14 and u16's.



# Physical Fitness for 12-16year olds



**Questions????**

