Midleton LGFA Player Pathway

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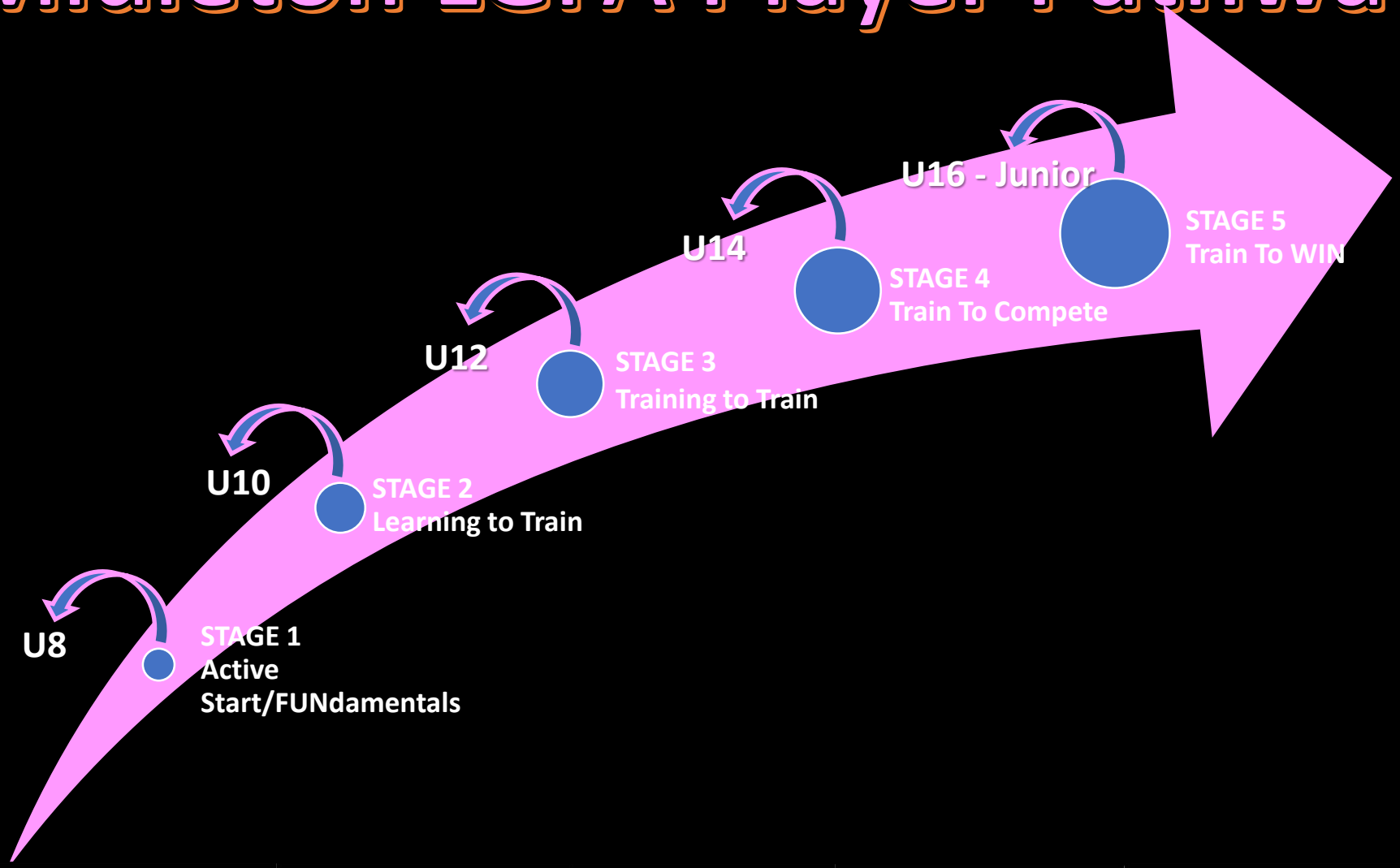


Why do girls play Football

Midleton's Own Orlagh Farmer Cork Senior Ladies Footballer and voted sports woman of the month June 2020.
For her PhD she looked into the reasons why girls drop out of sport at such an early age through the Gaelic4Girls programme - her research found that girls wanted to participate because of the enjoyment of it and not so much the winning aspect. She also found out that friends have a major influence on whether they will participate in sport or not.

As a Club our Vision is that everyone has the opportunity to be welcomed to take part in our games and culture, to participate fully, to grow and develop and to be inspired to keep a lifelong engagement with our club

To this end we try to ensure that every girl gets a game especially league and practice games where unlimited substitutes can be used.

Midleton LGFA Player Pathway

INTRODUCTION

LGFA Club Player Development of Competencies Chart

LGFA
LADIES GAELIC FOOTBALL

This 'Club Player Development of Competencies Chart' is a guide for mentors, parents and players in clubs to provide advice on what areas they need to develop in every player at key stages of their careers in the club. It is aimed to increase enjoyment and stimulation at the key stages with player welfare as they key component. We hope that this will assist clubs around the country in the development of their players to reach their full potential and encourage clubs to adapt this into their own plans. Teams and players will develop at different rates and it is important that coaches are aware of this and adapt the pathways where required for their own club. The below is just a guideline on competencies of players at the various ages and new players can enter this pathway at any stage.

Midleton LGFA Player Pathway

There are 5 key stages in the player pathway which have detailed player characteristics and describe the practical elements that must be coached during these ages and are aligned with the LGFA player pathways. These 5 stages are:

STAGE	AGE	EMPHASIS
Fundamentals	6-8 Years (Club Team U8)	Should be about fun and participation with key emphasis on physical literacy and fundamental movement skills with the ball
Learn to Train	U9 to U11 (Club Team U10)	Major skills learning phase where all the basic skills in Ladies football are learned. Emphasis on the fundamental movements.
Train to Train	U12 to U13 (Club Team U12)	Emphasis on understanding how to play and work together as a team
Train to Compete	U14 to U18 (Club Team U14/U16)	The principles of play and applying good game sense increase
Train to Win	U19 to Adult (Club Team Minor/Junior)	Combining all aspects of performance including decision making, higher physical demands of the game and coping with competition

It provides a framework for the development of skills, physical focus and game sense that coaches can follow stage by stage. This pathway should not be viewed as a rigid framework but as a guide to optimise player development.

Key concepts explained

ages 6-11 years old for girls are known as the "golden age of motor learning" and is the most crucial window of opportunity for learning new motor skills

Relative strength improves between the ages of 12-15 due to an increased ability to recruit muscle fibers

Normal Development and Training

Fundamantals: U8 - Mastering of basic motor patterns (running, jumping, landing) and other movements (catching, throwing)
Train to Learn: U10 - Training intended to develop speed, and master basic motor patterns and fundamental motor skills

- Improvement in muscular strength, the ability to produce power - Girls: 11-14 yrs
- Peak height and weight changes – change in weight tends to occur before the change in height – Girls 12-14 yrs

Train to Train: U12 - Training to master the technical aspects needed to compete in sport, improve strength and power.
Train to Compete & Train to Win: U14 Up - Training is sport-specific basic skills have been mastered, performance focused training

These points serve as a simplified timeline for girls physical development and the training that they should be receiving depending on their age and skill level.

Physical development is going to look different for every kid, so a general benchmark to follow is that by the age of 12 basic motor patterns like running, sprinting, jumping, landing and other movements like catching and throwing should be mastered

FUNdamental – Stage 1

U8 U8 U8 U8

Coaching style

Direct

- Players need to be led or shown
- Instructions are
- important
- Allowed to make mistakes
- Encouraged to use both feet
- Use of target games
- progressed to court games and finally field games

Lifestyle/Personal

- Taught value of being
- on time
- Co-operation – positive
- response to discipline
- Structure
- Awareness of health and safety issues
- Promote practicing skills at home

(Refer to LGFA Skills Booklet)

Physical

- Agility
- Balance
- Coordination
- Introduction to warm up and cool down
- Running
- Jumping
- Landing

Technical

- Jumping
- Catching - Body
- Throwing
- Rolling
- Bouncing the ball
- 4 steps
- Pass (hand & fist)
- Punt kick
- Pick Up
- Solo
- Shadowing
- Encourage both sides
- Regular testing of above
- basic skills

Tactical

- FUN games
- Fair play
- Friendly competition
- Spatial awareness
- Introduction to team games
- Awareness of basic
- positional roles

Mental

- Enthusiasm
- Self esteem
- Self confidence
- Increased attention span
- Introduction to team rather than self-centred
- Increase concentration

U8 Fundamental Movement Skills (FMS) U8

Developing basic movement skills is as important for a child's health and ability to do everyday tasks now and as they get older, as it is for their performance in sport.

The sequence in which children learn these skills is similar. While there can be gender differences in some activities, for example boys tend to develop the overarm throwing skill quicker than girls, both girls and boys need to be given opportunities to develop all skills.

The first **8 years** is the best time for a child to develop FMS skills.

FMS are generally grouped into **3 categories**:

1 Locomotor (Movement) Skills

- Walking
- Running
- Jumping (for distance, for height, one leg to another)
- Hopping
- Leaping
- Skipping
- Swinging
- Side stepping
- Dodging
- Galloping
- Climbing
- Crawling

2 Body Control (Stability) Skills

- Balancing on one foot
- Walking on a line or a beam
- Climbing
- Rolling (forward roll, log roll)
- Twisting
- Turning
- Rotating
- Landing
- Stopping
- Bending
- Stretching

3 Object Control (Manipulative) Skills

- Catching
- Overhand throw
- Underhand throw
- Punt kicking (kicking ball from hands)
- Striking with an implement
- Two handed striking
- Hand dribbling (repeatedly bouncing a ball with one hand)
- Foot dribbling
- Kicking
- Chest passing

U8 Football Station Model – Basic Skills

1 TROW AND BODY CATCH

Basic Drill to practise the Body Catch technique in a stationary position

- Divide the group into pairs, one football per pair
- The players stand approximately 3m apart
- Each player in turn throws the ball underarm for their partner to Body Catch
- Count the number of successful catches in 30 seconds

VARIATION

- To increase the difficulty increase the distance between the players
- To increase the challenge move the players further apart as their technique improves

2 TROW AND LOW CATCH

Basic Drill to practise the Low Catch technique in a stationary position

- Divide the group into pairs, one football per pair
- The players stand approximately 3m apart
- Each player in turn throws the ball to bounce for their partner to perform the Low Catch
- Count the number of successful catches in 30 seconds

VARIATION

- Move the players further apart as their technique improves

3 PUNT KICK

Basic Drill to practise the Punt Kick technique

- Divide the group into pairs; one football per pair
- Mark out a channel for each pair, who face each other approximately 10m apart
- Each player in turn Punt Kicks the ball to their partner
- To kick with the right leg take the first step with the left leg and vice versa
- It may be necessary to group children on the basis of ability

VARIATION

- To increase the challenge, increase the distance between the players

4 STATIONARY BOUNCE

Basic Drill to practise the Bounce technique in a stationary position

- Divide the group into pairs, one football per pair
- Each player in turn Bounces and catches the ball and hands it to their partner
- Alternatively, one player in each pair Bounces the ball repeatedly for one minute, catching the ball securely after each Bounce
- The second player in each pair counts the successful attempts by their partner
- Players switch play after 1 minute

VARIATION

- As the players become more proficient, challenge them to Bounce the ball at an angle for their partner to catch

5 HAND PASS TO PARTNER

Basic Drill to practise the Hand Pass technique

- Divide the group into pairs, one ball per pair
- Use cones to ensure that each pair has adequate space to perform the technique in a stationary position
- Partners stand approximately 3m apart
- Each player in turn Hand Passes the ball to their partner
- Continue the routine for approximately 1 minute
- This drill may be used to practise the variety of open handed Hand Pass techniques

VARIATION

- To increase the challenge, increase the distance between the players

6 WALK AND SIDE STEP

Basic Drill to practise the Side Step technique off both feet

- Place 2 cones approximately 15m apart
- Place 4 markers at regular intervals between the cones, the first and third to one side and the second and fourth to the other
- In turn each player walks forward and Side Steps each marker, side-stepping to the left off the markers to the right and to the right off the markers to the left
- Continue the drill over and back for a set time

VARIATION

- As the players become familiar with the technique, repeat the drill while walking, and eventually while jogging across the field

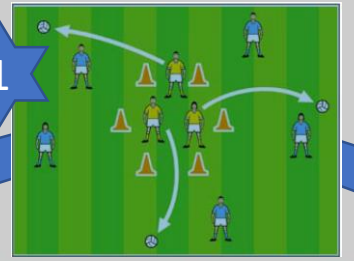
warm up activity

All players warm up together; Any pulse raiser can be used here –Bulldog, Stuck in The Mud, Chasing Games. Encourage players to run at speed in warm up.

U8 Football Station Model – Advancing the Skills & Movement

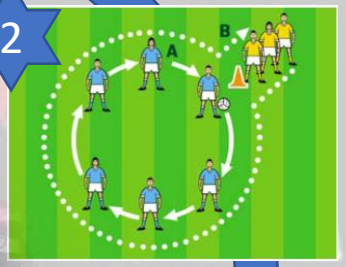
1 EMPTHY THE CIRCLE

- Mark out a circle using cones
- Divide the players into uneven teams
- Position the team with the greater number of players outside the circle and the other inside the circle
- The players inside the circle must attempt to keep the circle clear by Punt Kicking each ball from the circle
- The outside players must retrieve the balls and place them back in the circle
- Switch the roles of the players after a set time



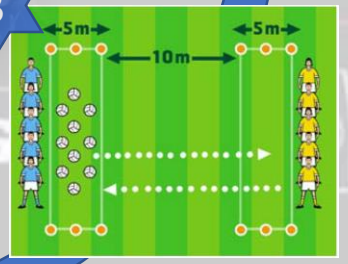
2 BEAT THE CIRCLE

- Divide the players into two teams
- Team A forms a circle with a distance of 3m between each player
- Team B lines up behind a cone outside the circle
- In turn the players in Team B run around the circle while Team A throw the ball around the circle from one to another
- Team A count the successful Body Catches completed before the last player in Team B finishes their run
- Reverse the roles; the team with the most Body Catches wins



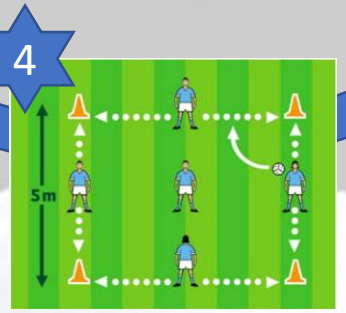
3 GRID SWAP

- Divide the players into two teams of five players each
- Mark out two girds 5m wide with 10m between each grid.
- Assign a grid to each team
- Place ten footballs in one grid
- On the whistle, the first team runs forward, picks up a ball each and returns it to their own grid, Bouncing the ball along the way. This is done until all the footballs have been moved
- The second team repeat, moving all the footballs back to their grid



4 PIGGY IN THE MIDDLE

- Mark out a playing area 15m by 15m
- Divide the players into groups of 5
- Position one player along each length of the grid
- Position the fifth player in the middle of the grid
- The Outside players must move along the lengths of the grid throwing the ball to each other to retain possession
- The ball must be caught using the body catch technique
- The middle player attempts to intercept the ball
- If the ball is dropped or intercepted, the outside player responsible moves to take up position as the 'piggy in the middle'

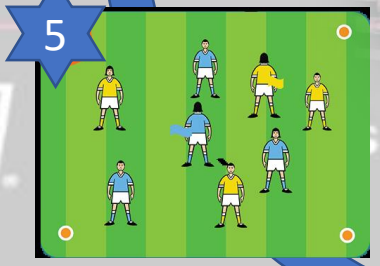


5 CHASE TAILS

- Mark out a playing area 15m by 15m
- Each Player creates tail by tucking bib at back
- On Coaches call players run around are for 45 secs
- Players try to take as many bibs of others as possible
- At end of game check for how many bibs players have got and any players who were not caught

6 ROB THE NEST

- Set up three even teams as in diagram
- Place footballs in centre of the grid
- Players hop to centre on one leg and bring 1 ball back to their team.
- Continue until all balls are gone from the middle
- Ask players to change leg each time.



warm up activity

All players warm up together.
Any pulse raiser can be used here – Bulldog, Stuck in The Mud, Chasing Games.
Encourage players to run at speed in warm up.

Skill Cards

Chest Catch

SKILL CARDS

The Chest (Body) catch

This catch is used when the ball arrives between leg and head height to the chest area. It is the most common catch.

Technique

The technique involves holding arms out to catch the ball and then pulling ball back into chest.

Head

Eyes on the ball at all times

Hands

Arms extended and fingers spread

Catch in arms and pull back into chest

Feet

One foot in front of other

Lean towards ball

Key Points

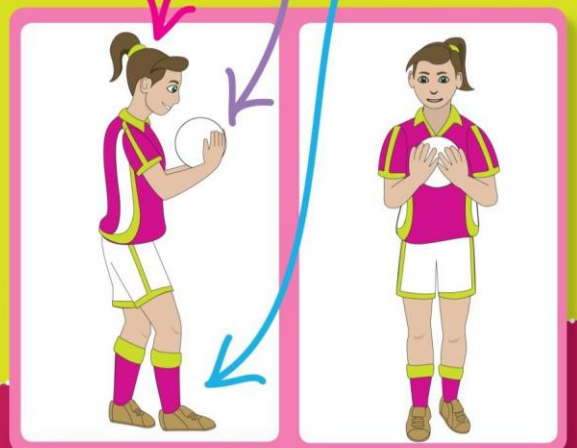
1. Keep head up and eyes on the ball at all times

   As the ball approaches the upper body leans forward to receive ball around chest height

   Arms are extended out with elbows close together and hands facing up

2. Catch in the arms and cushion the ball into a secure position with both hands

   If ball is coming below waist height, crouch to receive ball into the body



Common Errors

Error 1

Arms not close enough together to catch the ball resulting in the ball being dropped

It is important that as ball is caught the upper arms should be close to the body, forearms almost horizontal and less than a ball width apart

Error 2

Another common error is allowing the ball to hit off chest instead of cushioning it into chest with your arms.

Keep your eyes on the ball at all times and extend hands and keep fingers apart so ball can be cushioned into chest

Skill Cards

Punt Kick

SKILL CARDS

The Punt Kick

This kick is used mainly when facing or moving directly towards the target

Technique

The technique involves kicking with the instep (laced part) of the foot in the direction of the target

Hands

Ball released into hand at the kicking side

It is important to keep your head down and kick with laced part of the boot in direction of the target

Head

Eyes on the ball at all times

Feet

Step forward with non-kicking foot

Kick ball with instep and follow through in direction of target

Key Points

1. Hold the ball firmly with both hands

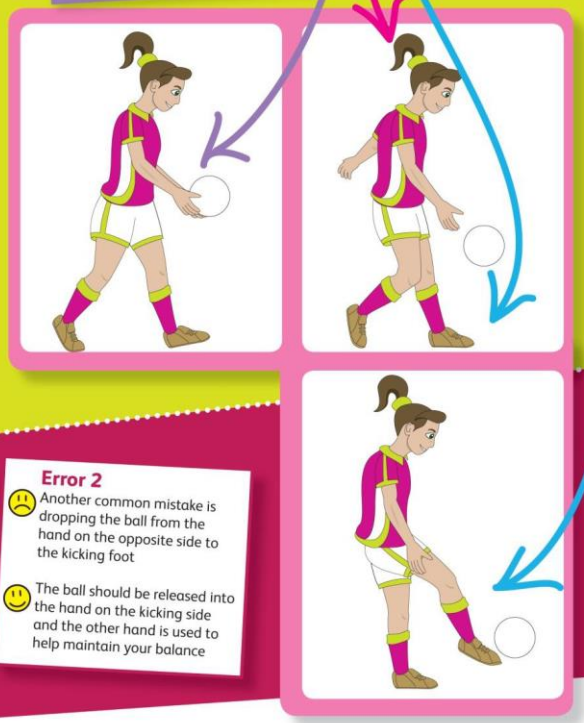
   Keep head down and eyes on the ball

2. Step forward with non-kicking foot and release ball into the hand at the kicking side

   Extend opposite arm away from body to keep balance

3. Kick with the instep with toes pointed

   Follow through in direction of target



Common Errors

Error 1

Not kicking the ball with the instep causes the ball to travel in the wrong direction

It is important to keep your head down and kick with the laced part of your boot in the direction of the target

Error 2

Another common mistake is dropping the ball from the hand on the opposite side to the kicking foot

The ball should be released into the hand on the kicking side and the other hand is used to help maintain your balance

Skill Cards

Hand Pass

SKILL CARDS

The Hand Pass

The hand pass is a basic technique to pass the ball over a short distance.

Technique

The technique involves supporting the ball in one hand while striking it with the other open hand.

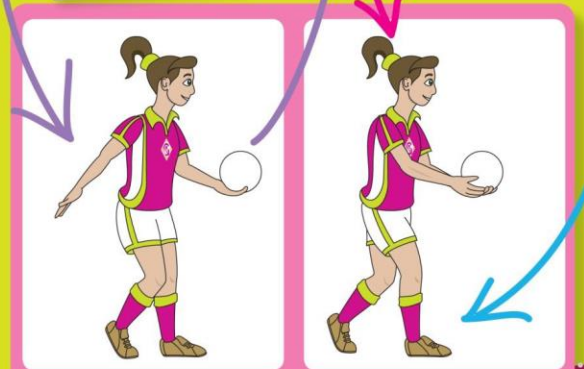
Key Points

1. Support the ball in the palm of your hand about chest height in front of the body
   Supporting hand should be steady
   Face your tream mate receiving the ball
2. Strike the ball using mostly your fingertips
   Follow the strike through in the direction of the pass
   While striking the ball, step forward

Head
Face your team mate

Hands
Ball on hand about waist height
Use open hand and strike mostly using fingertips
Follow through in direction of pass

Feet
One foot in front of the other
Take a step forward when striking the ball



Common Errors

Error 1
Not hitting the ball with the correct part of the hand. Not hitting the ball with the fingertips can cause the ball to drop short of the partner waiting to receive it

To correct this error, ensure that when striking the ball, mostly the fingertips are used

Error 2
Another common error is throwing the ball. This happens when there is no defining strike action taken when hand passing the ball to a team mate.

To avoid this, ensure to strike the ball well with an open hand

Error 3
Another mistake occurs when the supporting hand is not steady. This can lead to opponents easily dispossessing the ball as it is not under complete control.

This can also lead to misdirection of where the ball should go.

It may lead to difficulty performing the technique while moving

To avoid this mistake make sure that the hand supporting the ball is steady and has a firm grip on the ball.

SKILL CARDS

Evasion - The Side Step

The side step is to evade an opponent while in possession of the ball

Technique

The technique incorporates a step to the side and back again in order to avoid the opponent's challenge and maintain possession.

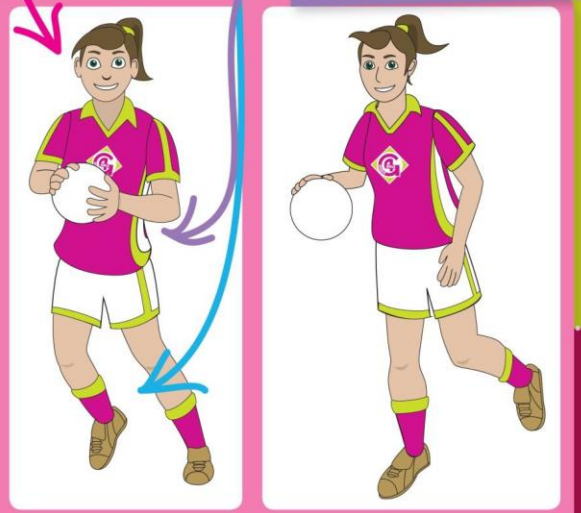
Key Points

1. Run towards the opponent
   When about a metre away from the opponent plant forward foot firmly on the ground
   Push hard off the planted foot and transfer your weight to the opposite side
2. Plant the opposite foot and continue forward in the new pathway
   Alternate sides

Head
Face opponent to know where to plant feet and then move in new direction

Feet
Plant forward foot in ground in front of opponent
Push hard of planted foot and shift weight to plant other foot in new pathway and continue forward

Hands
Solo before approaching opponent so that ball is safe in hands while doing sidestep



Common Errors

Error 1
Not transferring weight to the planted foot is a common error in young players and may lead to difficulty performing the technique while moving which can cause loss of balance.

To correct this error, ensure that the weight is transferred from the most forward foot to the planted foot behind just as the first foot is lifted.

Error 2
Another common error is taking too many steps in order to get past opponent.

To avoid this ensure to get into your new path of direction as quick as possible and then bounce the ball and catch to hold possession without ever carrying.

Skill Cards

Side Step

U10

Technical

- Catching – High
- Soloing – both sides
- Pass (hand & fist) – both sides
- Punt kick – both sides
- Hook kick
- Tackle with hand (basic)
- Introduction to blocking

Regular testing of above skills

U10

Tactical

- Basic rules of LGFA Games
- Awareness of opposition
- Team play – basic attack and defense
- Basic support play
- Continued spatial awareness

Learn To Train Stage 2

Mental

- Continued enthusiasm
- Build confidence and motivation
- Positive attitude to sport
- Build concentration

Physical

- Further agility, balance and co-ordination
- Increased understanding of warm up and cool down
- Introduction to flexibility and mobility
- Continued jumping and Landing techniques

Lifestyle/ Personal

- Taught value of playing on a team
- Identification with positive role models
- Accepts discipline structure
- Teamwork/ interaction skills
- Promote practicing skills at home

Coaching Style Required

Guide

- Huge emphasis on skill development
- Depend on coach for feedback
- Coach as commentator during games
- Begin to form small friendship groups so keep all involved

Emphasis on Go Games

U10 Football Station Model – Basic Skills

STATIONARY TOE TAP

Basic Drill to practise the Solo technique

- Each player has a ball
- Ensure each player has adequate space to perform the technique in a stationary position
- On the whistle, the players Solo the ball on the spot
- The players count how many times they can Solo the ball successfully in 30 seconds
- Start again if the ball is dropped or if the ball goes above the head
- Set a target for each player depending on their ability
- Players repeat the drill using the opposite leg

VARIATION

- Organise the drill in pairs with the partners counting for each other

HANG ON

Basic Drill to practise the Player Checking technique

- Mark a grid 8-10m square using cones
- Divide the players into pairs
- One player is the defender and one the attacker
- The defender must try to remain in contact with the attacker using one arm at all times
- The defender is not allowed to hold or pull the attacker
- After a set time change roles

VARIATION

- Use a harness to keep the players together

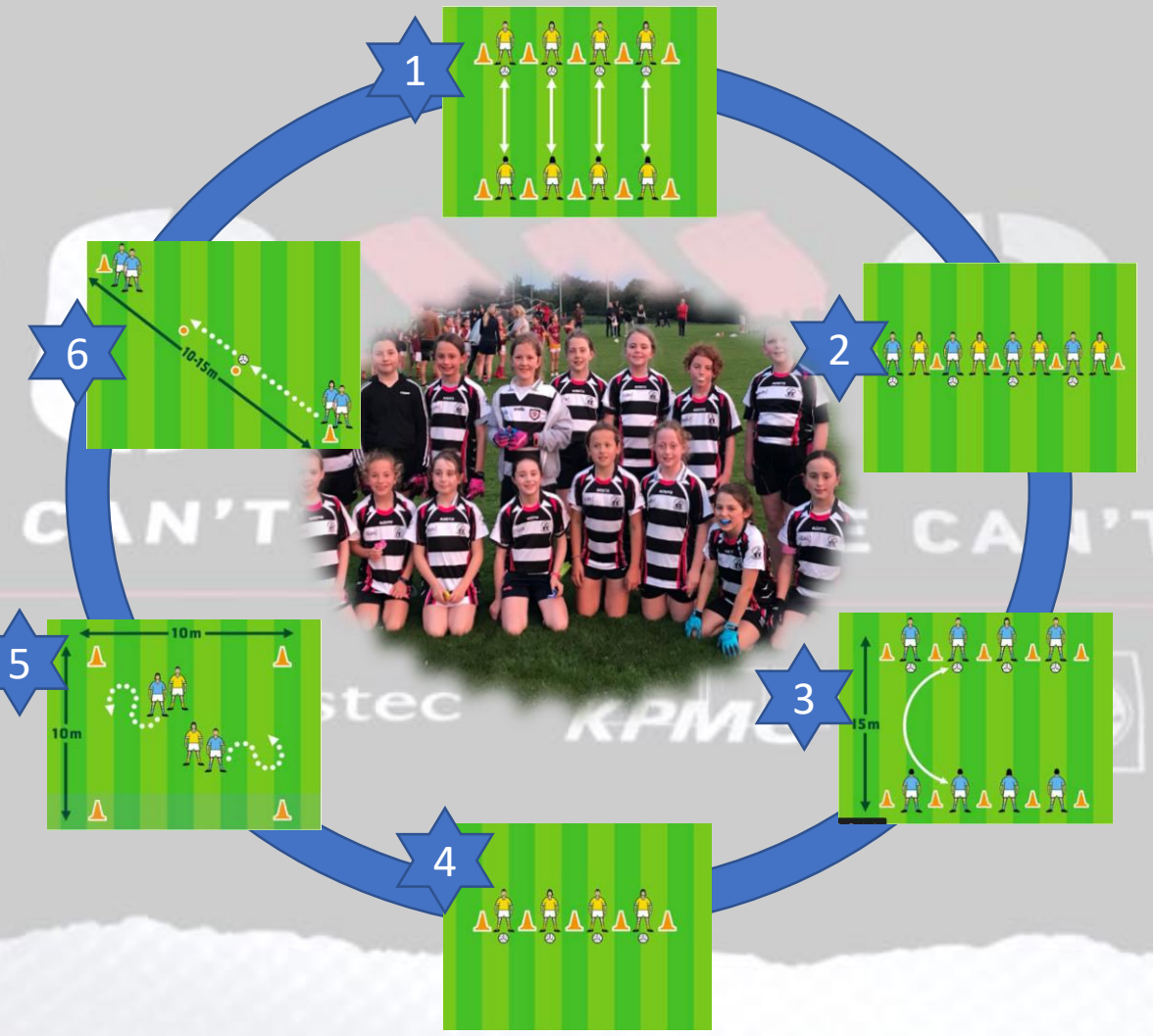
LIFT AND DROP

Basic Drill to practise the Crouch Lift technique that requires the players to lift and drop the ball within a short distance

- Place 2 cones and 2 markers in a line at equal distances over approximately 10-15m
- Divide the players into equal groups, positioned at each of the outer cones
- Place a ball at one of the centre markers
- The front player nearest the ball jogs forward to Crouch Lift the ball (One Leg in front of the ball to protect the ball)
- Continuing forward they place the ball at the next marker for the first player opposite to repeat the drill, and so on
- The players continue to the end of the opposite line

VARIATION

- To increase the difficulty of the drill reduce the space between the center markers



warm up activity

All players warm up together; Any pulse raiser can be used here –Bulldog, Stuck in The Mud, Chasing Games. Encourage players to run at speed in warm up.

REACH CATCH

Basic Drill to practise the Reach Catch technique

- Divide the group into pairs, one ball per pair
- Ensure each pair has adequate space to perform the technique in a stationary position
- Each player in turn throws the ball above their partner's head for them to perform the Reach Catch overhead
- Continue the drill for a set time
- Each player then fists the ball at head height for their partner to perform the Reach Catch in front
- Again continue the drill for a set period of time

VARIATION

- The ball may be thrown slightly to either side of the catching player to challenge them to reach to each side

BLOCK DOWN

Basic Drill to practise the Block Down technique

- Divide the group into pairs, one ball per pair
- Ensure each pair has adequate space to perform the technique in a stationary position
- Player A toe taps the ball for Player B, in a kneeling position, to block as the ball leaves the foot
- Reverse the roles after a designated time
- This drill is particularly effective in improving the confidence of the player in performing the Block Down

VARIATION

- Progress the drill by getting Player B to stand
- Challenge the blocker to step into the block from a metre or so away to improve their timing

HOOK KICK

Basic Drill to practise the Hook Kick technique

- Divide the group into pairs, one ball per pair
- Mark out a channel 5m wide and 15m long for each pair
- Each player in turn Hook Kicks the ball to their partner
- It may be necessary to group the players on the basis of ability
- Repeat the drill getting the players to use the opposite leg

VARIATION

- To increase the difficulty of the drill, increase the distance between the players

Skill Cards

Over head Catch

SKILL CARDS

The Overhead catch

This catch is used to catch a ball which comes at full reach height or over the players head.

Technique

The technique involves catching ball with fingers spread in front of head and bringing it down quickly.

Hands

Arms extended and hands in 'W' shape

Head

Eyes on the ball at all times

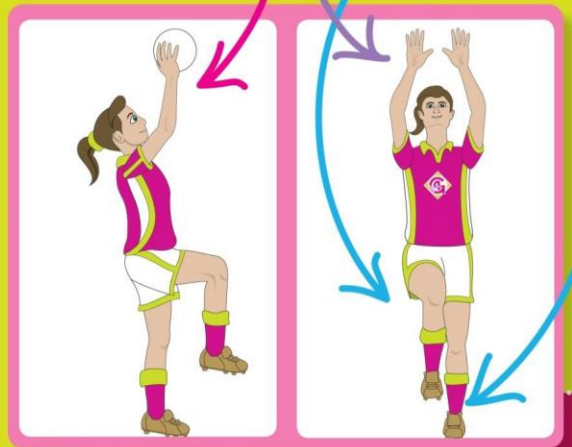
Feet

Plant jumping foot and extend

Raise other knee forward

Key Points

1. Keep eyes on the ball and as the ball reaches highest point assess where the ball is going to land
   Approach the ball and move forward
   Plant the jumping foot and extend upwards, raise other knee forward
2. Extend arms above head, keep head up and eyes on ball
   Reach to catch ball at highest point with fingers spread wide apart and thumbs behind ball ('W' shape)
   Catch the ball slightly in front of the head and bring down quickly, cushion the ball and secure into the chest with both hands



Common Errors

Error 1
Not having hands in correct position to catch the ball

Ensure that hands are in 'W' shape so ball can not slip through hands

Error 2
Another common error is jumping at the wrong time. If player jumps too soon or late the ball will go over the players head and possession will be lost

Ensure to keep eye on flight of the ball and assess where ball is going to land

Error 3
Another error is players closing their eyes and losing the flight of ball

Keep head up and eyes on the ball at all times until ball secured in hands

Skill Cards

Solo

SKILL CARDS

The SOLO

The Solo is used when a player is carrying the ball down the pitch. The player must solo or bounce the ball after every four steps taken. A player may complete as many solos as they want but can only use one consecutive bounce.

Technique

The technique involves releasing the ball from the hand on the kicking side to the kicking foot and kicking back up into your hands.

Hands

Ball released into hand at the kicking side

Wrist extended and ball dropped onto kicking foot

Hands ready to catch ball as flicked back up from solo

Head

Eyes on the ball at all times

Feet

Step forward with non-kicking foot

Kick ball with instep and flick toe upwards towards body

Key Points

1. Hold the ball firmly in both hands
   Head down and eyes on the ball
2. Step forward with the non-kicking foot and keep your body upright
   Release the ball into the hand on the kicking side
3. Drop ball onto the kicking foot and when foot (instep) impacts with ball, flick the toe upwards towards the body
   Straighten the leg and extend arms forward to catch the ball
   If running maintain a natural stride

Common Errors

Error 1
Not kicking the ball with the instep causes the ball to travel in the wrong direction

It is important to kick with the laced part of your boot otherwise the ball will not come back up into arms

Error 2
Another common mistake is dropping the ball from the hand on the opposite side to the kicking foot

The ball should be released into the hand on the kicking side and the other hand is needed to aid balance

Error 3
Some players do not flick their toe upwards causing the ball to go ahead of them instead of back up into arms

When the foot impacts the ball, flick your toe up so ball spins back into hands

Skill Cards

Pick Up

SKILL CARDS

The Pick Up

The pick-up is used in Ladies Gaelic Football to lift the ball from the ground into the body

Technique

The technique involves approaching the ball while moving or static to bring the ball from the ground into the body

Key Points

1. Move to the ball. Bend at the hips and knees. Supporting foot beside the ball.

   Head down and eyes on the ball

2. Place same hand as supporting foot in front of the ball and the other hand directly behind the ball

   Fingers spread

3. Scoop ball up off the ground and draw the ball into the body

Head: Eyes on the ball at all times

Hands: Place one hand in front of the ball. Same as supporting leg and other hand behind the ball

Feet: Place supporting leg beside the ball. Both feet must be on the ground

Common Errors

Error 1
Not crouching to lift the ball

Important to bend at hips and knees

Error 2
Picking the ball up while on the ground

Ensure both feet are firmly paced on the ground before attempting the pick up

SKILL CARDS

The Block

The block is used to attempt to dispossess an opponent and re-gain advantage of the ball.

Technique

The technique involves having your hands in a 'W' shape, held stiffly and keeping your eyes open. You need to get close to the kicker's leg/foot and bring your hands down on the ball to block.

Key Points

1. Hands like 'W' shape

   Hold hands stiffly to give more support when blocking

   Get close to kicker's leg/foot so you can get near to the ball

Head: Eyes on the ball at all times

Hands: W' shape; Hold stiffly

Not facing away

Feet: One foot in front of other; In close to kicker's foot

Common Errors

Error 1
Not having hands in correct shape. Hands apart trying to block can cause ball to be kicked through arms away or into face

To correct this error, ensure that when blocking 'W' shape is maintained

Error 2
Not standing close enough to kickers leg. It is easier for the kicker to play the ball away without being blocked and also there is a greater chance that the blocker can get kicked by the kicker's leg as playing the ball away

Ensure that person blocking gets in close to kicker's leg so they can block and dispossess.

Error 3
Another mistake occurs when the player blocking closes her eyes. She is then unable to get a view of where the kicker's foot is so may be unable to block or may get caught by the kicking foot.

Ensure that the person blocking keeps eyes open at all times to be aware of where the player and ball is.

Skill Cards

Block Down

U12 Train To Train – Stage 3 U12

Technical

- Developing all skills on both sides:
  - Hand and fist pass
  - Punt and hook kick
  - Soloing
- Near hand tackle
- Blocking
- Evasion skills – side step, roll off
- Angles of run
- Timing of pass
- Importance of getting 'head up'
- Regular testing of skills

Tactical

- Increased awareness of competition rules
- Support play for ball carrier
- Identify and address strengths and weaknesses
- Appreciation of consequences of actions
- Spatial awareness under pressure

Mental

- Achieve success and be praised for it – basic targets
- Setting short term goals
- Sportsmanship encouraged and fostered
- Increased decision making opportunities

Physical

- Introduction to basic fitness techniques
- Importance of proper hydration at training emphasised
- Introduction to speed and acceleration

Lifestyle/ Personal

- Inclusion of sport in lifestyle
- Good health and hygiene
- Established self-identity
- Basic nutrition and hydration
- Promote practicing skills at home or in own time

Coaching Style Required

Delegate

- Begin to understand rules and competition
- Start to compare to each other
- Spot and fix from coach is important
- Coach can start to use questions to increase decision making
- Transition from Go Games to Full sided

U12 Football Station Model – Basic Skills

1 PUNT KICK

Basic Drill to practise the Punt Kick technique

- Divide the group into pairs, one ball per pair
- Mark out a channel for each pair through which the ball must pass
- Beginning approx 10m apart each player in turn Punt Kicks the ball to their partner
- Encourage the players to practise Punt Kicking with both left and right feet

VARIATION

- As the players become more competent increase the distance the players are required to kick the ball

2 HIGH CATCH

Basic Drill to practise the High Catch technique

- Divide the group into pairs, one ball per pair
- Each player in turn throws the ball above their opponents head for them to perform the High Catch
- Initially the catcher jumps off both feet from a stationary position, bend the knees and extend the arms backwards before springing up and extending the arms forward and up to catch the ball
- To progress the drill the catcher takes one step forward to jump while swinging the other leg forward. Concentrate on gaining as much height as possible with the swinging leg

VARIATION

- As the players become more competent allow the catcher to jog forward to jump for the ball

3 NEAR HAND TACKLE

Basic Drill to practise the Near Hand Tackle technique

- Divide the group into pairs
- Mark out a channel approximately 5m wide using cones
- Each pair walk side by side through the channel with Player A attempting to step across and execute the Near Hand Tackle
- Player B should toe tap or Bounce the ball on every stride to afford the tackling player a number of chances to practise the tackle
- Change roles after a number of attempts

VARIATION

- Increase the pace gradually beginning with a jog as the players become more competent

4 FEINT & SIDE STEP

Basic Drill to practise the Feint & Side Step technique

- Divide the players into groups of 4
- The players form a line approximately 3-4m apart, the first player facing the others
- Player A, with ball in hand, feigns past each player in turn while walking
- Players B, C and D remain stationary throughout
- Once player A reaches the end of the line all the players move forward and the ball is passed to Player B to repeat the drill
- Each player in turn moves to the top of the line and repeats

VARIATION

- As the players become proficient introduce jogging to increase the speed of the drill

5 SOLO

Fun Game to practise the Solo technique

- Divide the players into two equal teams
- The game begins with a Punt Kick from one team down the field to the other team
- The receiving team must then Solo and Hand Pass the ball up the field
- A score is awarded only when a player Solos the ball through the opposition goals
- Having scored or lost the ball in the tackle the team return to their endline and Punt Kick the ball for the second team to attempt to score

VARIATION

- To reduce the difficulty of the game for the attacking team reduce the number of defenders for each play

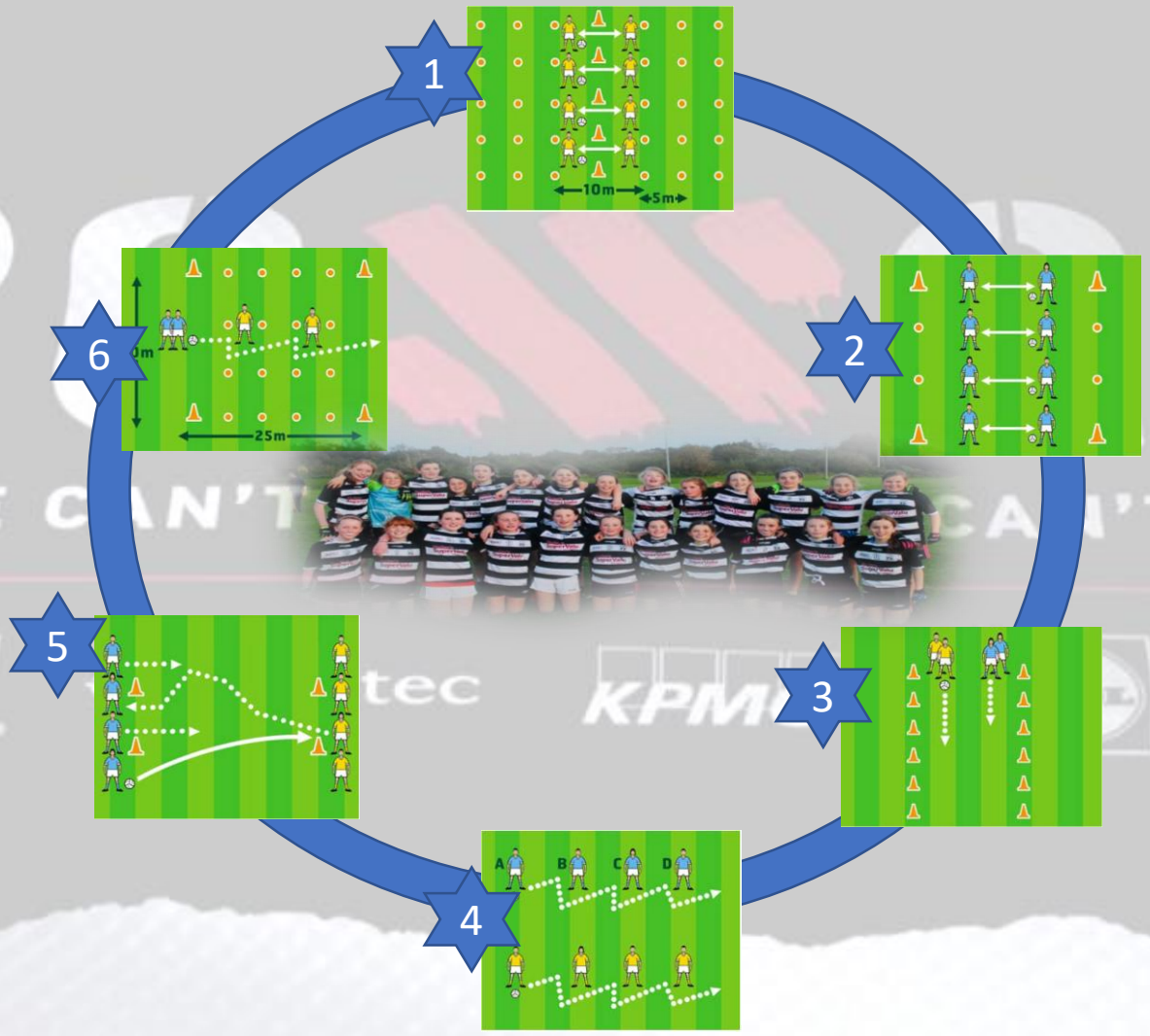
6 PASS THE GUARDS

Fun Game to practise the Feint and Side Step technique while encouraging Soloing.
It also helps develop defensive skills like Checking and the Near Hand Tackle Mark a grid 8-10m square using cones

- Mark out a grid of approximately 25m X 10m wide
- Mark 5 equal zones along the length of the grid
- Position a defender in the 2nd and 4th zones
- In turn, attacking players attempt to get to the far end of the grid without losing possession
- The defending players may only challenge the attacking players within their defensive zones

VARIATION

- Place a goal at the end of the grid and require the players to shoot for goal having successfully passed the defenders



Pace of exercises

Speed at which all the exercises and skills are carried out should be increased substantially. Ability to gain possession and release possession should be done in minimal time

Skill Cards

The Tackle

SKILL CARDS

The Tackle

The tackle is used to attempt to dispossess an opponent and regain possession of the ball.

Technique

The technique involves moving alongside the opponent and attempting to flick the ball away with the hand nearest the opponent.

Key Points

- Run alongside opponent
- Keep your eyes on the ball
- When opponent's far leg in moved forward, take a step in with your near leg
- Flick the ball away using your hand nearest the opponent when ball in travelling from hand to toe or when being bounced
- Knock the ball away to regain advantage and recover ball to win possession

Head

eyes on ball

Hands

Use nearest hand to flick ball away

Feet

Move nearest leg across opponents space to get close to ball

Common Errors

Error 1

Player using fist to knock ball away and tackling when ball into body of player in possession

To correct this error, ensure the players use the open hand or hands to knock the ball away and do not tackle when player has the ball in their possession into their body

Error 2

Not standing close enough to kickers leg. It is easier for the kicker to play the ball away without being tackled and also it is more difficult to time the tackle from distance.

Ensure that person tackling gets in close to kickers leg so they can time the tackle to get hand(s) in as player has ball away from body

Error 3

Another mistake occurs when the player tackling closes her eyes or does not keep eyes on the ball. She is then unable to get a view of where the kickers foot or the ball is so may be unable to time the tackles or may get caught by the kicking foot.

Ensure that the person tackling keeps eyes open at all times and on the ball to be aware of where the player and ball is.

Skill Cards

Hook Kick

SKILL CARDS

The Hook Kick

This kick is mainly used when moving across the direction of the kick to avoid an opponent or to make a better angle.

Technique

The technique involves kicking at right angles to where the player is facing

Key Points

1. Hold the ball firmly with both hands

   Keep head down and eyes on the ball

2. Point the shoulder towards the target and step forward with non kicking foot

   Release the ball into the hand at the kicking side and extend opposite arm to assist balance

   Extend wrist and drop ball onto kicking foot

3. Kick ball with inside of foot

   Follow through across body in direction of target with toe pointing upwards

Head

Eyes on the ball at all times

Hands

Ball released into hand at the kicking side

Wrist extended and ball dropped onto kicking foot

Feet

Stand at 90° angles to target, shoulder pointing towards target

Step forward with non-kicking foot

Kick ball with inside of foot and follow through across body in direction of target

Common Errors

Error 1

Turning around to face target before kicking resulting in a punt kick

Point shoulder towards target and kick at right angles to where player is facing. Follow through across body

Error 2

Another common error is dropping the ball from the hand on the opposite side to the kicking foot

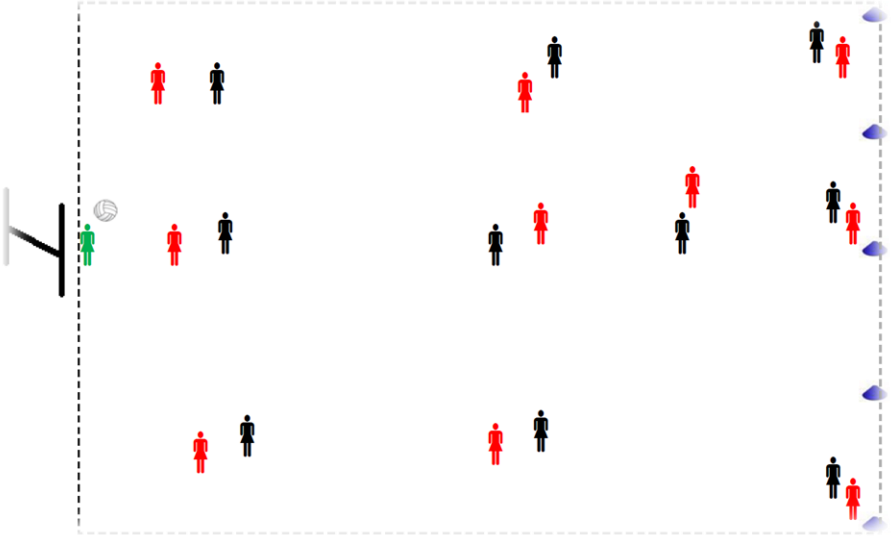
The ball should be released into the hand on the kicking side and the other hand is needed to aid balance

U12 Strategy for play – Switch between offence and defence quickly

One of the Key aims of this pathway is to develop a style of play that over time can be adopted by all teams.
From U12 up one of the goals is to be able to switch between offence and defence quickly, attacking at pace and working the ball to create scoring opportunities.

One game to use to develop this aspect is **ALL OUT ATTACK**

What yon need: Cones to mark half way line; Bibs for one time



This game will

- Ensure players have to think and switch from defence to attack rapidly
- Make all players develop attacking and defending skills
- Increase communication throughout the team

Game is started by coach kicking ball into play area

Rules of play

- All rules of Ladies Gaelic Football can apply
- Goal keeper plays for whichever team is defending
- The team that wins possession must work ball out over the line of cones, keeping possession
- Once across the line, this team turns with the ball and attacks the goals
- The other team defends and tries to win the ball back
- If the ball goes dead (score, wide, sideline) the coach kicks the next ball in
- Should one team dispossess the other during open play, that team must work the ball out in the same way
- In short, no attack may be mounted without ball being taken over the halfway line

U14 Train To Compete – Stage 4 U16

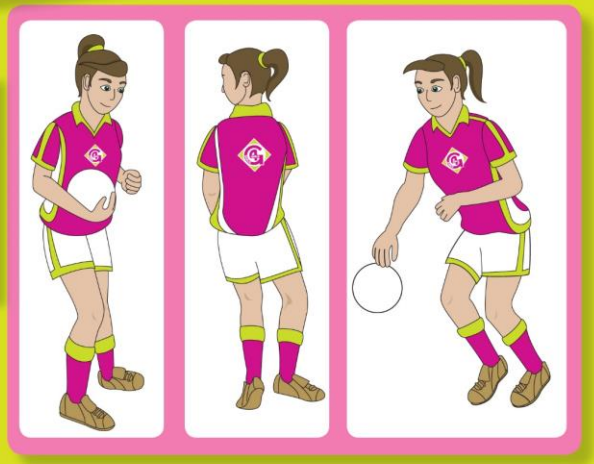
Technical	Tactical	Mental	Physical	Lifestyle/ Personal	Coaching Style Required
• Perform multi-functional roles - marking role, target player • Close correction of mistakes; technical and rule based with constructive criticism • Skill development within small sided games • Sports specific skills – free taking, penalties etc. • Regular testing of skills	• Full rules of 15-a-side game • Introduction of the 'Sin Bin' • Understand game plans • Implement patterns of play • Develop positional • requirements • Basic performance analysis with progression	• Goal setting – long and short term • Self-motivation • Taught how to prepare for matches; pre-match, half time and post-match • Basic mental preparation techniques – relaxation • Capable of teamwork and taking advice • Coping strategies during a game encouraged by coach	• Develop fitness – anaerobic and aerobic • Basic strength and conditioning • Multidirectional runs • Explanation of training system: how to train for speed, strength, endurance etc. • Periodisation training system • Establish recovery routines	• Ambition – commitment to develop • Stressed importance on team work • Role model for younger players in club • Life balance – integration of sport, study and life goals • Importance of rest and recovery • Increased knowledge of nutrition and hydration issues • Coping with set-backs/ failures	**Excite** • Training for of competition • Stimulating training • Use of conditioned games • Group opinion important for evaluation • Coach players to look – see– decide and act – Increased decision making • Set team standards • Individual programmes required to work on weaknesses

Skill Cards ↓ Roll Off ↓

SKILL CARDS

Evasion - The Roll Off

The roll-off is used to evade an opponent while in possession of the ball.



Technique

The technique incorporates a planting your foot and using opponent's shoulder as a hinge to roll off and pivot away in order to avoid the opponent's challenge and maintain possession.

Key Points

1. Solo the ball approaching the opponent
   Plant front foot (right) forward towards the opponents left shoulder while transferring the ball to the left side
2. Using their shoulder as a hinge roll off by swinging the left leg around and pivoting on the right foot
3. Plant the left foot on the ground and transfer the ball back to the outside of the body, now the right side
   Bring the right leg around and accelerate away
   Use a low bounce clearing the opponent

Common Errors

Error 1
Not transferring weight to the planted foot is a common error in young players and may lead to difficulty performing the technique while moving which can cause loss of balance.

To correct this error, ensure that the weight is transferred from the most forward foot to the planted foot behind just as the first foot is lifted.

Error 2
Another common error is taking too many steps in order to get past opponent.

To avoid this ensure to get into your new path of direction as quick as possible and then bounce the ball and catch to hold possession without ever carrying.

Error 3
Another error is planting the wrong foot first which results in the player pivoting into her opponent instead of around her

To correct this error ensure that left foot is planted first and player pivots on right foot

Error 4
Soloing when reaching the opponent is another fault. It is easier for opponent to get possession if ball soloed in front of her

It is important that the player solos before approaching player so that they can use bounce after pivoting to get away at pace

SKILL CARDS

The Fist Pass

The fist pass is a basic technique used to pass the ball over a medium distance.

Technique

The technique involves supporting the ball in one hand while striking it with the other closed fist.

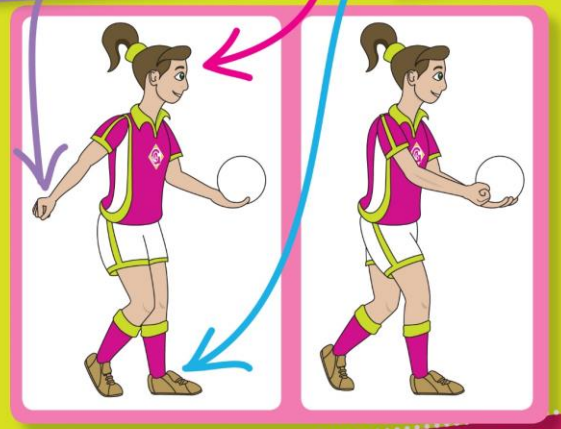
Key Points

1. Support the ball on upturned palm off supporting hand at about waist high and in front of the body
   Draw the striking hand backwards and forwards while at the same time forming a fist
   Face your team mate receiving the ball
2. Strike the middle of the ball with the fist, using surface formed middle bones of fingers, side of thumb and heel of hand
   The striking hand follows through in direction of pass
   While striking the ball step forward, placing the thumb over the index finger can also form the fist.
   The ball is hit by the surface formed by the thumb and index finger

Head
Face your team mate

Hands
Ball on hand about waist height
Form fist with other hand, keep arm straight, draw back and then forward to strike ball
Follow through in direction of pass

Feet
One foot in front of the other
Take a step forward when striking the ball



Common Errors

Error 1
Not hitting the ball with the correct part of the fist. Not hitting the ball with the area formed by the thumb and index finger can reduce accuracy of the pass to the partner waiting to receive it.

To correct this error, ensure that when striking the ball that area is used.

Error 2
Another common error is throwing the ball. This happens when there is no defining striking action taken when the hand passing the ball to a teammate.

To avoid this ensure to strike the ball well with the fist.

Error 3
Another mistake occurs when the supporting hand is not steady. This can lead to opponents easily dispossessing the ball, as it is not under complete control.

This can also lead to misdirection of where the ball should go.

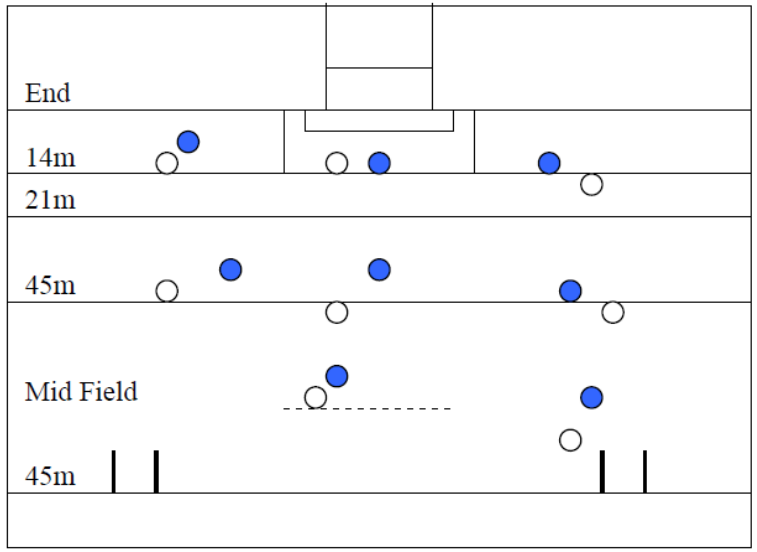
It may lead to difficulty performing the technique while moving

To avoid this mistake make sure that the hand supporting the ball is steady and has a firm grip on the ball.

Skill Cards ↓ Fist Pass ↓

Football Drills to improve team play

Work it Out



- The aim is in the name

- Set up
  - area from one end line to the 65m or far 45m line
  - teams line out in backs v forwards style
  - goalkeeper starts with all the balls
  - As soon as the ball goes dead i.e. wide or score the keeper starts again.

The scoring is as follows
- The attackers get 1pt for a point and 2pts for a goal.
- The Defenders get 1pt for playing the ball through either set of poles and 2pts if they can carry the ball trough either poles

Don't tell your players any tactics just how the rules at the beginning. Let them work it out

3 Seconds

One of the traits a good player has is the ability to look up when in possession and scan the area ahead - He/she is scanning in order to make the right decision.

One of the easiest methods of developing this is by running the 'Three Second Game'.

This simply means playing a match or a backs v forwards game and introducing the rule that allows each player a maximum count of '3' on the ball.

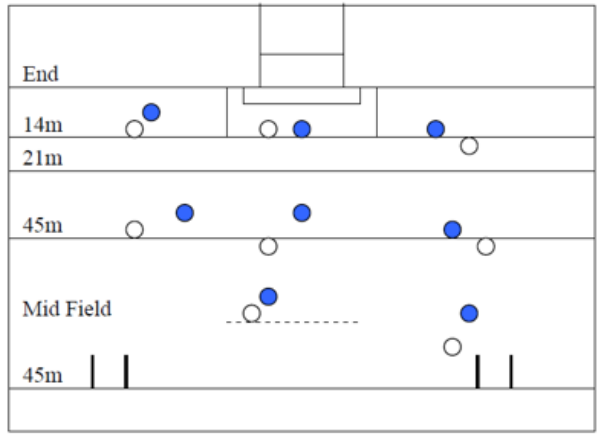
To highlight this, the coach should referee the game and call out loudly "1.....2....3 when a player receives the ball.

Should the ball be played on the count of '2' then the coach stops the call and begins again as the next player receives the ball.

Should any player still be in possession after the count of '3', a free may be awarded to the opposition.

The same count applies to the free – too long and the opposition gets a free.

Counting to '3' forces more players to look up first and, indeed, leads to more team-mates making runs for passes.



U18 Train To Win– Stage 5 Junior

Technical	Tactical	Mental	Physical	Lifestyle/ Personal	Coaching Style Required
• Perform multi-functional roles – play maker, decoy, distributor • Reinforcement of skills • Minimise weaknesses in individual game by correction of error using feedback & self-analysis • Consolidate and enhance strengths • Competition specific training	• Awareness of oppositions tactical strengths and weaknesses • Use of conditioned games to assist in teaching of tactical moves • Adaptation of different situations i.e. environnent, opponents etc. • Implement performance analysis • Ability to adapt tactical strategies during a game • Consideration of tactical developments within a game • Identify opponents game plan and develop counter tactics which are practiced	• Own responsibility for preparation for training and match activity • Use of imagery and relaxation in match • Individualised warm up routines • Concentration and focus • Self-coping strategies – regaining focus during a match	• Maintenance and improvement of fitness to optimize performance • Structured strength and conditioning • Careful planning and phasing of training • Use of conditioned games to develop aerobic capacity for sports specific activity • Well established recovery routines	• Role model for all players in club • Openness to further development opportunities • Positive use of influence or power • The pursuit of excellence • Full integration of sport, career and life goals • Well developed, self-monitoring lifestyle	**Involve** • Involvement of players in decision making for the team or consultation process • Strong on self-evaluation • Challenging sessions with full decision making • Develop style of play

Football Sessions to create space

WHY PLAY THESE GAMES:

Scenario:

Using the width of a pitch and available space during a game is a useful tactical and decision making skill in Ladies Football. It is common that players can be too 'blinkered' when moving towards the opposition goal. They are so focused on scoring they are overly fixated with moving towards goal and forget that using the full width of the pitch or moving the ball in various directions can create a multitude of attacking options that are very difficult to defend.

Ideally we want players to be able to play with their 'heads up'. We want them to analyse the movement in front of them and make good decisions on the ball; do they pass a ball just because a player makes a run or do they deliver the ball into the space that player created?

GAME 1:

What will this Game do?

This game will:

- Improve maximising space
- Increase communication throughout your team
- Improve timing of the pass
- Improve decision making
- Improve support play

What do I need to set up this Game?

- The size of the playing area should be approx.
- Inside Box 20m x 20m & Outside Box 40m x 40m
- 1 Football min – have other footballs near the coach to ensure game flows
- Bibs
- Cones to mark the two squares
- Whistle

WHAT WILL PITCH LAYOUT LOOK LIKE? (*SEE RIGHT*)

How do you play this Game?

Start of Play:

- Play starts with both teams inside the small square
- Coach gives the ball to one team to start the game and they remain in possession until duration of activity

Rules of Play:

- Only one play of the ball allowed i.e. one hop or one solo
- Phase one of play - The team with the ball must keep possession for 15 seconds inside the small square
- If team loses possession then ball is given back to them but is counted as one possession lost
- Phase two of play - When 15 seconds has lapsed, the coach blows the whistle and the team in possession must vacate the small square and utilise the space in the outer area with aim to holding onto possession for a further 30 seconds.
- When complete, rest for 45 seconds and repeat but this time possession is given to the opposite team
- Conduct this activity max. four times each with adequate recovery in between each game

How do you score in the Game?

- Teams who lose possession the least amount of times wins the game

What changes can be made to the Game?

	How can I make the Game Easier?	How can I make the Game Harder?
Space	Increase the size of playing area so more space for players to run into	Decrease the playing area so less space for players to run into
Task	No limit on number of plays a players can carry out when on the ball	No plays of the ball, must move the ball within four steps
Players	Team on the ball have an extra player	Team not in possession have an extra player

GAME 2:

What do I need to set up this Game?

- The size of the initial playing area should be approx. 20m x 15m in front of the goals. No limit to playing area when move outside same for phase two of the activity
- 1 Footballs min
- 1 Goal
- Bibs
- Cones to mark out the area
- Whistle
- 1 goalkeeper

WHAT WILL PITCH LAYOUT LOOK LIKE? (*SEE RIGHT*)

How do you play this Game?

Start of Play:

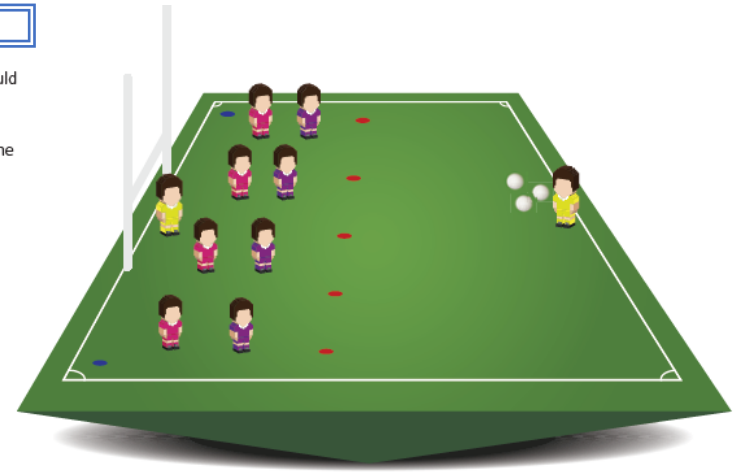
- Two teams (4v4, 5v5 or 6v6), commence the activity in the small square marked in front of the goals

Rules of Play:

- Phase one of play - For 10 seconds, the defenders must try stay with their marker (forward) within the area marked out by the coach in front of the goals
- Phase two of play - On the coaches' whistle, the forwards inside the small square must lose their marker and run into space.
- The coach plays the ball to an attacker who is free
- The attacking team has 30 seconds to score
- If the attacking team is dispossessed within this timeframe then attacking team continues to try to turn over the ball and score within the remaining time allocated.

How do you score in the Game?

- Attacking team must score v number of times defending team dispossesses players



What changes can be made to the Game?

	How can I make the Game Easier?	How can I make the Game Harder?
Space	Decrease playing area	Increase playing area (this will increase the pace of the game)
Task	Players are allowed to solo/hop the ball once More time allocated to score	No play of the ball Less time allocated to score
People	Less players per team or extra attacking player	Extra defender

What are the Common Problems to watch out for:

Problem	Solution
Lack of movement of players	Players must be moving when receive ball and also to get into space to look for a pass
No support for player in possession	Important that players all over pitch are looking to receive the ball to give options to the player in possession
Team too slow to attack	Remove solo and bounce to ensure all first time play
Lack of composure at vital time – kicking for a score	Ensure you have select right time to execute the score and do not delay

Our Mantra

I Am Capable.

I Am Strong.

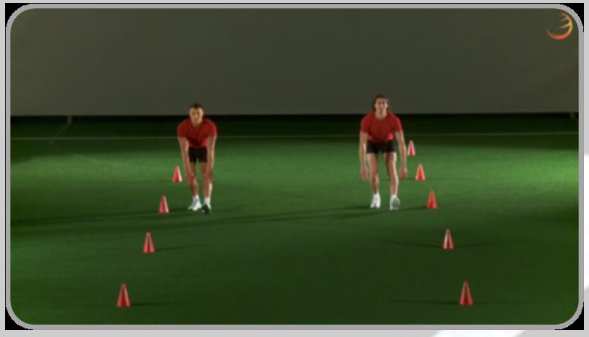
I Believe in Myself.

Midleton LGFA Player Pathway

Attentional Resource Aids

Example of warm up stretches to use

Touch Toes



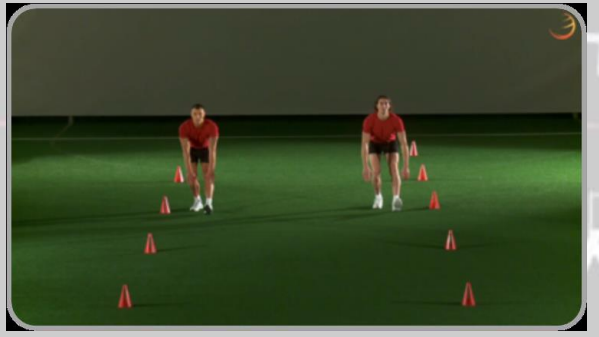
Heel Flicks

Squats

Hamstrings

Hip Out

Touch Toes



Reverse Lunge

Jumps

Hip in

Single Leg Bridge

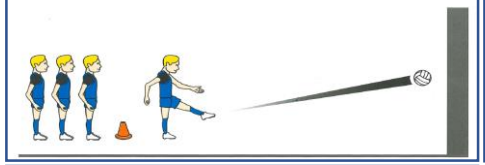
Forward Lunge

Single leg dead lift

Football Sessions for the Ball Alley

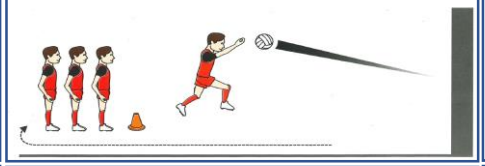
EXERCISE 1 » Keep the Kettle Boiling »
Duration: 2 mins

» Players stand in a line in their lane one behind the other. The first player from each lane moves forward and kicks the ball against the wall and catches it without it hitting the ground. They then pass the ball to the next player and the exercise is repeated.



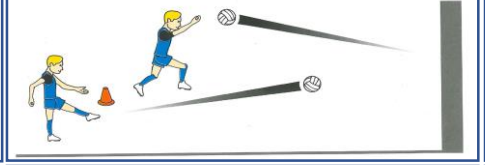
EXERCISE 2 » High Catch » Duration: 2 mins

» This exercise is similar to exercise 1 but players must kick the ball slightly higher off the wall so they are forced to jump and catch the high ball.



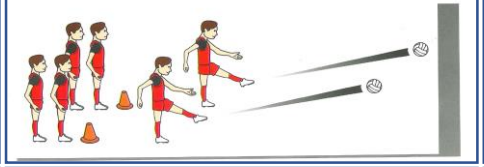
EXERCISE 3 » Attack Team » Duration: 2 mins

» In this exercise there is one ball between 2 players. In pairs the first player moves forward and kicks the ball off the wall. The second player then moves in and attempts to catch it.



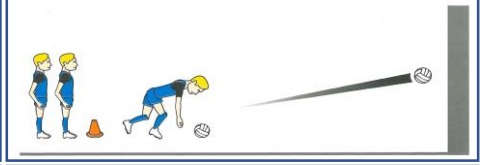
EXERCISE 4 » Lives » Duration: 2 mins

» Players line up in their lanes. The player in the first lane kicks the ball off the wall and the next player in the lane catches it. This player then kicks the ball off the wall and the third player in the lane catches it and so on. Each lane has 3 lives and a life is lost for every ball dropped.



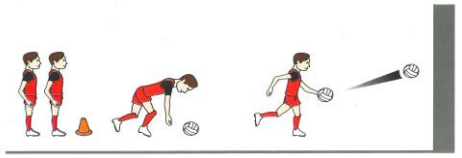
EXERCISE 5 » Pick Ups » Duration: 1 min

» Each lane has a ball placed a few yards in front of them. The first player runs to the ball, performs a pick-up, kicks it of the wall, catches it and places the ball on the ground so the next player can repeat the exercise.



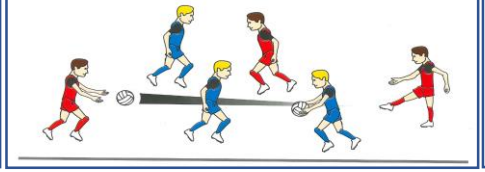
EXERCISE 6 » 3 Moves » Duration: 2 mins

» A ball is placed a few yards in front of the first player. The player runs to the ball, performs a pick-up, then kicks the ball off the wall and catches the rebound. Finally the player moves close to the wall to perform a fist pass and catch off the wall before returning and placing the ball for the next player.



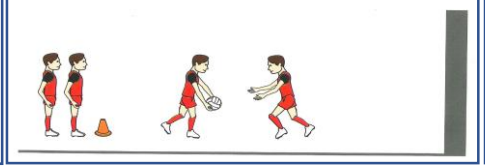
EXERCISE 7 » Free Space » Duration: 1 min

» All the teams spread out around the court with one ball per team. Each team makes passes to their team mates who are calling and moving around the free space for the ball. Players avoid the other teams and players are encouraged to call for the ball and take 4 steps before passing back to their team mate.



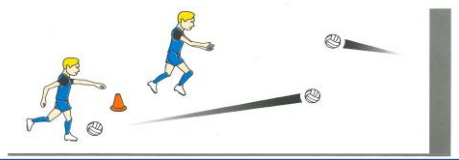
EXERCISE 8 » Beat the man » Duration: 2 mins

» All players go back into their lanes and one person acts as a defender. The person with the ball tries to get past the defender and kick the ball off the wall. The attacker hasn't got much space to move so they must learn to beat the defender quickly in minimal amount of space.



EXERCISE 9 » Chip off the Wall » Duration: 1 min

» The balls are placed on the ground. The first player in the lane chips the ball off the ground against the wall and the second player tries to catch it. The ball is then replaced and the next two pairs go.

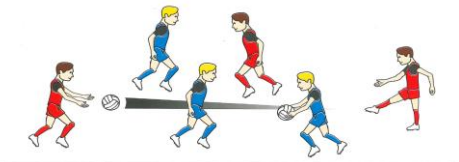


EXERCISE 10 » The Toe Flick » Duration: 2 mins

» The first player soccer style kicks the ball along the ground and performs the chip lift, with their toe pointing down. This player then hand passes to the next player.

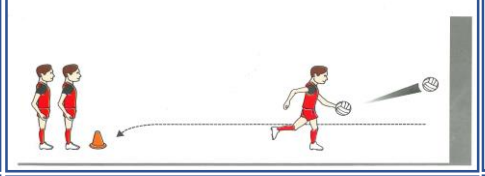
EXERCISE 11 » Free Space » Duration: 1 min

» Same as exercise 7. All the teams spread out around the court with one ball per team. Each team makes passes to their team mates who are calling and moving around the free space for the ball. Players avoid the other teams and are encouraged to call for the ball and take 4 steps before passing back to their team mate.



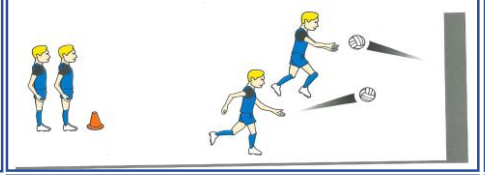
EXERCISE 12 » Fist Pass » Duration: 2 mins

» One ball per lane. The first player runs forward and hand passes the ball off the wall and catches it before passing to the next player in the line. Players must alternate between left & right hand passes.



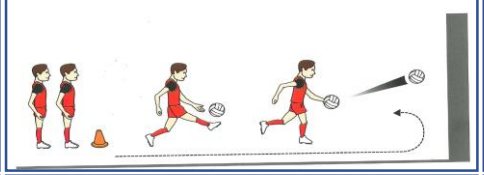
EXERCISE 13 » Team Passing » Duration: 3 mins

» The first player hand passes off the wall and their partner steps in and catches the ball.



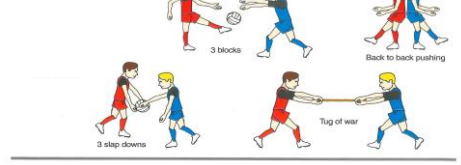
EXERCISE 14 » Solo » Duration: 2 mins

» Move further back from the wall and the first player in each lane solo's towards the wall, hand passes off the wall and catches it before passing to the next player.



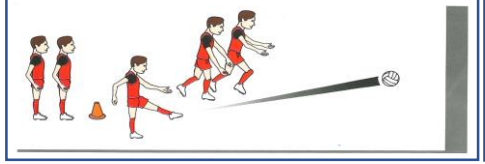
EXERCISE 15 » Partners » Duration: 30 Secs per exercise

» In pairs perform the following exercises:



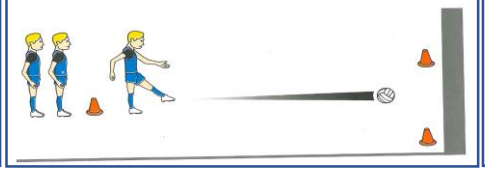
EXERCISE 16 » Fight for the Ball » Duration: 2 mins

» One player from the lane kicks the ball off the wall and two other players from the same lane must compete to try and win possession of the ball.



EXERCISE 17 » Goals » Duration: 2 mins

» A goal is marked out on the wall (using cones etc). Players take turns shooting for a goal, no goalie. Ball must be kicked low and hard.

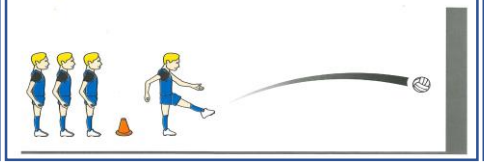


EXERCISE 18 » Goalie » Duration: 1 min

» Similar to exercise 17 but place one player standing guarding the wall, each player takes their turn and shoots for a goal.

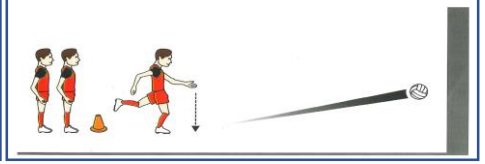
EXERCISE 19 » Swerve Kick » Duration: 2 mins

» Players practice the swerve kick off the wall and attempt to catch the ball again. The swerve kick is a kick with the outside of the foot.



EXERCISE 20 » Drop Kick » Duration: 2 mins

» Players practice the drop kick off the wall and attempt to catch the ball again. The drop kick is when a player drops the ball down and kicks the ball immediately after it bounces.



The How to Coach Skills

1 Build Rapport

- Show interest in and respect for each player and others
- Smile and make eye contact with each player
- Learn and use Players names
- Coach the person rather than just the sport

2 Provide Demonstration

- Position so all can see and hear
- Provide correct demonstration then focus attention on 1-3 key points
- Provide demonstration more that once from different angles
- Check for understanding before they go to practice

3 Explain

- Plan what to say
- Gain attention before starting
- Keep it Simple
- Use questions to check for players understanding

4 Observe

- One point at a time: head, hands and feet
- Observe each player from different angles
- Observe each player several times
- Check if activity is working

5 Analyse

- Compare your observations with your picture of good practice
- Identify the matching key points
- Identify the mismatching key points
- Decide whether to reinforce, modify, or note but take no immediate action

6 Feedback

- Ask 'what did you notice about….@ to promote self-analysis
- Limit information to 1-3 key points
- Give specific, simple information in a positive way
- Check for understanding; 'What will you/we do now?'

The Youth Physical Development Model: A New Approach to Long-Term Athletic Development

- Additional information on the physical development differences between young male & female athletes
- Interesting read

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SUMMARY

THE DEVELOPMENT OF PHYSICAL FITNESS IN YOUNG ATHLETES IS A RAPIDLY EXPANDING FIELD OF INTEREST FOR STRENGTH AND CONDITIONING COACHES, PHYSICAL EDUCATORS, SPORTS COACHES, AND PARENTS. PREVIOUS LONG-TERM ATHLETE DEVELOPMENT MODELS HAVE CLASSIFIED YOUTH-BASED TRAINING METHODOLOGIES IN RELATION TO CHRONOLOGIC AGE GROUPS, AN APPROACH THAT HAS DISTINCT LIMITATIONS. MORE RECENT MODELS HAVE ATTEMPTED TO BRIDGE MATURATION AND PERIODS OF TRAINABILITY FOR A LIMITED NUMBER OF FITNESS QUALITIES, ALTHOUGH SUCH MODELS APPEAR TO BE BASED ON SUBJECTIVE ANALYSIS. THE YOUTH PHYSICAL DEVELOPMENT MODEL PROVIDES A LOGICAL AND EVIDENCE-BASED APPROACH TO THE SYSTEMATIC DEVELOPMENT OF PHYSICAL PERFORMANCE IN YOUNG ATHLETES.

INTRODUCTION

In recent times, scientists and coaches have shown an increasing interest in the long-term development of young athletes (7,23,30,44,63,65,80,100,102). Enhancing the physical abilities of children throughout childhood and adolescence to maximize athletic success at an adult age is not a novel concept, as evidenced by earlier youth-based training programs (20). Researchers have previously documented the importance of not treating children like "miniature adults" owing to clear differences in physical growth and stature (39). Therefore, the content and delivery of youth strength and conditioning provision should be markedly different from that of fully matured adults.

The long-term athlete development (LTAD) model (7) takes into consideration the maturational status of the child and offers a more strategic approach to the athletic development of youth. The LTAD model suggests that there exist critical "windows of opportunity" during the developmental years, whereby children and adolescents are more sensitive to training-induced adaptation (7). The model also states that a failure to use these windows will result in the limitation of future athletic potential (7). However, this concept is largely theoretical and lacks supporting longitudinal empirical evidence (4,44,84). This article will present a new model, which provides a more considered and evidence-based approach to the long-term development of young athletes. The model will demonstrate that most, if not all, components of fitness are trainable throughout childhood and will question some preconceptions of current LTAD theory.

THE EVOLUTION OF LTAD THEORY

Early attempts at objectifying the process of LTAD were based on research that highlighted distinct phases of learning that characterized the development of elite performers: the early years, the middle years, and the later years (18). This early work was extended by Cote (32) who, after interviewing elite junior athletes, identified 3 distinct sport-specific stages of development: the sampling years (ages 6–12), the specializing years (ages 13–15), and the investment years (ages 16+). A common problem with these models is that they are classified in accordance with chronologic age, an approach that has previously been deemed flawed (44), owing to differential rates of development of chronologic age and biologic maturity (57,68,108).

KEY WORDS:
pediatrics; maturation; long-term athlete development

Consequently, a more comprehensive LTAD model was introduced that attempted to address the interaction between growth, maturation, and training (7). The model suggests that measures of height and weight are routinely collected to be able to identify peak height velocity (PHV) and peak weight velocity (PWV), which reflect individual maturation rates (68). PHV refers to the maximum velocity of growth in stature and has been used to characterize developments in performance relative to the adolescent growth spurt (68). PWV is a phase of development characterized by rapid increases in muscle mass as a result of increasing sex hormone concentrations (44). By objectively measuring the rates of change in height and body mass, it is suggested that children can be trained according to biologic status as opposed to chronologic age (7).

WINDOWS OF OPPORTUNITY

A review article by Viru et al. (110) examined developmental literature and identified the existence of naturally occurring periods of accelerated adaptation for a range of biomotor qualities. A preadolescent spurt was highlighted for strength, speed, explosive strength, and endurance, in both boys and girls (110). It was suggested that age-related developments in neural properties were responsible for the prepubertal window, characterized by increased intramuscular and intermuscular coordination and improvements in motor control programs (110). An adolescent spurt was also identified in the review, but this differentiated between biomotor qualities (110). Maturity-related adaptations are typically the result of increased androgen concentrations, fiber-type differentiation, resting adenosine triphosphate, and creatine phosphate levels and further architectural development of musculotendon units (73).

Viru et al. (110) identified that spurts in speed and endurance occurred before and around PHV, respectively, whereas accelerated gains in strength qualities occurred after PHV (110). Using PHV as a key reference marker of maturation, the LTAD model proposes that these periods of accelerated adaptation offer windows of opportunity where training responses will be maximized (7). In the LTAD model, it is assumed that these periods of rapid natural development represent a time of increased sensitivity to training, although empirical evidence supporting this suggestion is lacking (44). Furthermore, according to the LTAD model, should a child not engage in the appropriate training during the specific window, then their ceiling potential may never be reached. This concept would appear to be too simplistic and has recently been questioned by researchers (4,44,85). Conversely, research would suggest that most fitness components are trainable throughout childhood and should not be restricted to specific "windows" at various stages of development (3,44,94). Another weakness of the current LTAD model (7) is that its inclusion of stamina, suppleness, speed, strength, and skill presents a somewhat limited approach to the holistic development of young athletes. Despite the importance of power, agility, and hypertrophy to human performance (56,98,120), no guidance is offered as to when and why these qualities should be trained throughout childhood and adolescence.

THE YOUTH PHYSICAL DEVELOPMENT MODEL

Given the limitations of previous athletic development models, the present article introduces a new alternative model that encompasses athletic development from early childhood (2 years of age) up to adulthood (21+ years of age). The model has been titled the Youth Physical Development (YPD) model and offers a comprehensive approach to the development of young males (Figure 1) and females (Figure 2), respectively. It is expected that the new model will provide strength and conditioning coaches, sports coaches, physical educators, and parents with an overview of total physical development, while identifying when and why the training of each fitness component should be emphasized.

Within the model, training emphasis is highlighted by increasing font size (i.e., the greater the font size, the more important it is to train for that fitness quality). For example, the model shows that a 12- to 13-year-old boy should primarily focus their training on strength, power, speed, agility, and sport-specific skill (SSS) development, with a reduced focus on hypertrophy, mobility, fundamental movement skill (FMS), endurance, and metabolic conditioning. Discussion of how maturational status, sex, and initial training level affect the application of the model will be discussed later in the article. Below is a detailed overview of the rationale behind the emphasis of targeting various fitness components at different stages of a child's development.

FUNDAMENTAL MOVEMENT SKILLS AND SPORT-SPECIFIC SKILLS

The topic of FMS development has received considerable interest owing to the close association between FMS competency, health and well-being, physical activity, and to a lesser degree physical performance (29,38,66,82,83,103). Previous research has indicated that FMS development is essential to ensure that correct movement patterns are mastered in a safe and fun environment to ensure safe and effective performance of more complex sports movements at a later stage (85). FMSs have been viewed as the building blocks for sport-specific movement patterns and should typically be the focus of physical development programs for children from early childhood to develop gross motor skills (35). From the onset of puberty, adolescents can then be introduced to more SSSs, whereby FMSs are tested within more competitive scenarios.

YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR MALES

CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD							ADOLESCENCE									ADULTHOOD
GROWTH RATE	RAPID GROWTH ↔			STEADY GROWTH							↔ ADOLESCENT SPURT ↔									DECLINE IN GROWTH RATE
MATURATIONAL STATUS	YEARS PRE-PHV										← PHV →									YEARS POST-PHV
TRAINING ADAPTATION	PREDOMINANTLY NEURAL (AGE-RELATED) ↔										COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)									
PHYSICAL QUALITIES	FMS			FMS					FMS		FMS									
	SSS			SSS					SSS		SSS									
	Mobility			Mobility							Mobility									
	Agility			Agility							Agility					Agility				
	Speed			Speed							Speed					Speed				
	Power			Power							Power					Power				
	Strength			Strength							Strength					Strength				
	Hypertrophy										Hypertrophy			Hypertrophy						Hypertrophy
	Endurance & MC			Endurance & MC							Endurance & MC					Endurance & MC				
TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE							MODERATE STRUCTURE			HIGH STRUCTURE						VERY HIGH STRUCTURE

Figure 1. The YPD model for males. Font size refers to importance; light blue boxes refer to preadolescent periods of adaptation, dark blue boxes refer to adolescent periods of adaptation. FMS = fundamental movement skills; MC = metabolic conditioning; PHV = peak height velocity; SSS = sport-specific skills; YPD = youth physical development.

However, it must be noted that FMS should always be present within any strength and conditioning program, for any athlete, of any age (65). For example, the main emphasis of a training session for an inexperienced 7-year-old boy may revolve around a series of FMS development exercises, whereas a young, elite, 21-year-old man may integrate FMS maintenance exercises within a dynamic warm-up. This logical approach is reflected in the YPD model (Figures 1 and 2), where an emphasis is placed on FMS development up to the onset of puberty, and subsequently, focus is given to SSS from adolescence onward. However, the YPD model also shows that both FMS and SSS are present at all times throughout childhood and adolescence, but the emphasis placed on both components varies according to developmental stage.

STRENGTH

Despite previous concerns, it is now accepted that children can safely and effectively participate in strength training, when prescribed and supervised by appropriately qualified personnel (6,11,39,62,88,105). The LTAD model (7) suggests that a "window of opportunity" for strength development in youths occurs 12–18 months after PHV, which is typically commensurate with PWV (14,15). The rationale behind this window is that around the time of PWV, adolescents will undergo periods of rapid gains in muscle mass resulting from increased circulating androgen concentrations (110).

However, by limiting the period of trainability to coincide with maturity-related increases in muscle mass would suggest that children can only become stronger as a consequence of muscle fiber hypertrophy and subsequent increases in muscle cross-sectional area. Despite this, it has previously been established that strength development is multifaceted and results from a combination of muscular,

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- Interesting read

YOUTH PHYSICAL DEVELOPMENT (YPD) MODEL FOR FEMALES																				
CHRONOLOGICAL AGE (YEARS)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+
AGE PERIODS	EARLY CHILDHOOD			MIDDLE CHILDHOOD					ADOLESCENCE											ADULTHOOD
GROWTH RATE	RAPID GROWTH ↔ STEADY GROWTH ↔ ADOLESCENT SPURT ↔ DECLINE IN GROWTH RATE																			
MATURATIONAL STATUS	YEARS PRE-PHV ← PHV → YEARS POST-PHV																			
TRAINING ADAPTATION	PREDOMINANTLY NEURAL (AGE-RELATED) ↔ COMBINATION OF NEURAL AND HORMONAL (MATURITY-RELATED)																			
PHYSICAL QUALITIES	FMS			FMS				FMS												
	SSS			SSS				SSS												
	Mobility			Mobility					Mobility											
	Agility			Agility					Agility											
	Speed			Speed					Speed											
	Power			Power					Power											
	Strength			Strength					Strength											
	Hypertrophy								Hypertrophy											
	Endurance & MC			Endurance & MC					Endurance & MC											
TRAINING STRUCTURE	UNSTRUCTURED			LOW STRUCTURE					MODERATE STRUCTURE					HIGH STRUCTURE					VERY HIGH STRUCTURE	

Figure 2. The YPD model for females. Font size refers to importance; light pink boxes refer to preadolescent periods of adaptation, dark pink boxes refer to adolescent periods of adaptation. FMS = fundamental movement skills; MC = metabolic conditioning; PHV = peak height velocity; SSS = sport-specific skills; YPD = youth physical development.

neural, and mechanical factors (1,34). Owing to the neural plasticity associated with the prepubertal years, where development of the neuromuscular system naturally accelerates (21), it is suggested that strength development should be targeted during childhood in addition to after the adolescent spurt. This notion is reinforced by research and meta-analytical reviews that have proven that both prepubertal children and adolescents can achieve training-induced improvements in muscular strength (12,13,40,42,48).

The YPD model shows that the development of muscular strength should be a priority at all stages of development for both males and females (Figures 1 and 2). This notion is based on previous research that has revealed close associations between muscular strength and running speed (114), muscular power (104,116), change of direction speed (78), plyometric ability (71), and endurance (53). Additionally, it has been speculated that muscular strength is indeed critical for successful FMS development (12). Consequently, it is reasonable to suggest that developing levels of muscular strength should be a priority of any athlete development program, as strength would appear to transcend all other fitness components. Although not all these relationships have been validated in pediatric populations, early research has indicated that muscular strength (in addition to stature) could account for up to 70% of the variability in a range of motor skills including throwing, jumping, and sprinting in 7- to 12-year-old boys (106).

The development of muscular strength should also be viewed as an integral component of youth strength and conditioning programs not only for performance enhancement but also for reducing the risk of sport-related injuries (39). It has been reported that high aerobic fitness and low levels of muscle strength heighten the risk of fracture in children participating in exercise protocols (26), highlighting the importance of strength within an athletic development program. It is now accepted that the risk of sports-related injuries in youths can be reduced by regularly engaging in an appropriately designed strength training program that is supervised by appropriately qualified personnel (42,73). In 2011, the National Athletic Trainers' Association suggested that approximately 50% of overuse injuries within youth sports could be preventable in part with appropriate preparatory conditioning (109). However, it must be stressed that strength development sessions should not simply be viewed as an addition to a young athletes' development program but as a replacement for another form of training (e.g., endurance training or skill development session).

HYPERTROPHY

The YPD model depicts that an emphasis on training for hypertrophy may begin around the ages of 14 years in male and 12 years in female athletes. As mentioned previously, these phases of development will typically occur after PHV, at a time where levels of circulating testosterone and growth hormone rapidly increase in accordance with the adolescent growth spurt (68,110). Increases in serum concentrations of testosterone, estradiol, and progesterone have been directly linked with the stimulation of protein synthesizing pathways (45) and are responsible for the pubertal growth spurt and adaptations to muscle and skeletal tissue (19). Although not proven with direct evidence, it is reasonable to assume that because of a lack of circulating androgens, significant training-induced increases in muscle size before adolescence would appear limited. Consequently, within the YPD model, it is suggested in terms of resistance training that a focus should be geared toward strength development before adolescence, and after the adolescent spurt, strength training should be interspersed with bouts of hypertrophy training to make further gains in muscular strength and overall performance.

POWER

The ability to generate high levels of power is essential for sporting success (119); however, power is omitted from the current LTAD model (7). Vertical jump height is an indirect measure of muscular power, and owing to its simplicity, most developmental literature has used the test modality to assess pediatric lower limb muscular power (50,55).

The YPD model shows that the key period of power development starts at the onset of adolescence and continues throughout adulthood, largely because of rapid improvements in muscle power during adolescence being attributed to maturational influences (15). However, although power development is emphasized primarily after the onset of puberty, the YPD model does suggest that some training focus should also be given to developing power during the prepubertal phase. This is in response to research that shows that both children and adolescents can make worthwhile training-induced improvements in measures of muscular power (25,41,64,69,92,97,118). As is the case with muscular strength, the research would therefore suggest that muscular power is trainable throughout childhood, although the magnitude and rate of development may differ before and after the onset of puberty.

SPEED

Currently, the LTAD model advocates that windows of opportunity for speed development are entirely age related (7). According to the model, any training effects will therefore result from neural adaptations, which have previously been highlighted as significant factors in speed gains (21). However, alternative research has indicated that speed development in young athletes might also be influenced by maturation (94), which suggests that as is the case with many fitness components, speed is indeed trainable throughout childhood and adolescence. Interestingly, the review of Rumpf et al. (94) revealed that prepubescents benefited most from training requiring high levels of neural activation (plyometrics and sprint training), whereas adolescents responded more favorably to training modes that targeted both neural and structural development (strength and plyometrics). This might support the concept of windows when different training adaptations predominate reflecting natural development; however, trainability per se remains throughout childhood. From a practical perspective, this would suggest that prepubescent children should focus their speed development around plyometrics, technical competency, and sprint work to develop existing physical qualities, whereas adolescents should focus more on strength training, plyometrics, and sprint training, to maximize overall speed gains.

AGILITY

Agility is arguably one of the most underresearched fitness components within the pediatric literature, despite the acknowledgment that a high degree of agility is required for optimal performance in the majority of sports (56). Furthermore, a window of opportunity is not present within the current LTAD model (7). Consequently, it is difficult to determine whether age, maturation, or both are determinants of agility performance. There is a lack of research that identifies appropriate time frames to target agility-specific training. Therefore, the YPD model makes inferences in relation to the development of the subcomponents of agility, as defined previously (99,120): *change of direction speed* (inclusive of technique, straight sprinting speed, lower limb strength, and anthropometry) and *cognitive function* (perceptual and decision-making processes).

Change of direction speed. When examining the literature surrounding these components, the YPD model suggests that agility should be targeted during both prepubescence and adolescence. As lower limb strength and straight running speed are components of agility (120), it is logical to look to develop agility and reinforce coordination and movement pattern accuracy during the early years. The prepubertal years have already been shown to represent an opportunity for children to enhance strength (12,48) and speed (94), resulting from enhanced neural contribution to rate of force development (110). Once a child reaches adolescence, they will typically experience further gains in strength through continued neural maturation and also significant increases in lean muscle mass, owing to increased serum androgen concentrations (110). It is reasonable to suggest that adolescence will therefore serve as an opportune time to further develop agility, as peak force and peak rate of force development are likely to increase because of the adaptation in muscle structure. Prepubescence has also been identified as a period that sees children undergo rapid developments in the neuromuscular system (21), with the rates of brain maturation peaking between 6 and 8 and 10 and 12 years (90). Naturally, owing to the neural plasticity associated with prepubescence, this would seem an ideal opportunity to develop motor control programs inclusive of basic change of direction techniques in the first instance and then progressing to more sport-specific agility movements as the child approaches adolescence.

Cognitive function. According to Sheppard and Young (99), a number of perceptual variables influence agility. Specifically, the authors state that visual scanning, knowledge of situations, pattern recognition, and anticipatory qualities influence individual agility performance (99). Minimal literature exists examining the influence of growth and maturation on these components and their subsequent effects on agility performance. Outside sporting situations, research suggests that cognitive capacities increase during late childhood and adolescence and that throughout these phases of development, repeated exposure to a given stimulus will result in faster response times because of an apparent strengthening of existing synaptic pathways (24). Whether these theories translate to actual sporting situations, in which athletes will need to react rapidly to fluctuating stimuli (e.g. body position, bounce of ball, opposition movement), remains to be seen.

It is expected that the locomotive vocabulary developed during the prepubertal phase will continuously be enhanced as the child progresses through adolescence and into adulthood, through an increase in experiential learning opportunities within sports-specific environments. Given the lack of existing developmental literature, it is suggested that the training focus of agility should be made more challenging as the individual progresses through childhood and into adulthood, with the use of more open and unplanned training methods to continually overload the training stimulus. Additionally, with an increase in training demands within an overall athletic schedule, it is expected that agility development (and maintenance) will be garnered from specific sports skill-based sessions, where movement demands replicate the exact locomotive demands of the sport.

As per speed development, a caveat should be noted for agility development during adolescence, as children learn to move with longer limbs. The rapid gains in limb length during the adolescent growth spurt can lead to decrements in motor control performance, a concept commonly referred to as "adolescent awkwardness" (87). During this stage of development, researchers have suggested that many of the previously acquired movement patterns will need to be reperfected (37). Through regular monitoring of growth rates, periods of adolescent awkwardness can potentially be identified and strength and conditioning coaches should be aware of the underlying processes attributable to such disruptions in motor control and adjust the content of training sessions accordingly.

MOBILITY

Despite highlighting "suppleness" as one of the key components to develop through training (7), the LTAD model fails to suggest an appropriate window of opportunity for its development. The YPD model purports that at no stage is mobility the main emphasis of a training program during childhood or adolescence. However, it should be noted that as authors, we recommend that mobility development and maintenance should be an essential part of any athletic program to ensure athletes are capable of reaching the requisite ranges of motion required for their sports.

Specifically, the YPD model proposes that middle adulthood (ages 5–11) serves as the most important time frame for an individual to incorporate flexibility and mobility training. The rationale for this selection is that it incorporates a period that has previously been termed a critical period of development for flexibility (67,96). Sex differences are apparent within the research, suggesting that boys show a reduction in trunk forward flexibility between 9 and 12 years (16), whereas girls demonstrate accelerated improvement beginning at 11 years of age (22). It is therefore suggested that prepubescence serves as an opportunity to develop mobility, whereas maintenance of the acquired levels should be the focus for adolescents and adults.

ENDURANCE AND METABOLIC CONDITIONING

Early research produced conflicting results with respect to the trainability of youths, with studies suggesting that children who were circa-PHV possessed greater training responsiveness (113) or, conversely, that large training gains were possible for children who were pre-PHV (93). It is suggested that inconsistencies in research design have been attributable to these confounding results and that a lack of longitudinal empirical evidence refutes the claims of the existence of a window of opportunity as defined in the LTAD model (44). Regardless of the lack of evidence, growth-related changes in central and peripheral cardiovascular systems, neuromuscular function, and metabolic

The Youth Physical Development Model: A New Approach to Long-Term Athletic Development

- Additional information on the physical development differences between young male & female athletes
- Interesting read

capacities are expected to influence endurance and metabolic conditioning development throughout childhood (93). As physiological components are continuingly developed throughout childhood and adolescence, it is not surprising that prepubertal, circumpubertal, and postpubertal children have all been reported as being able to make worthwhile improvements in endurance performance as indicated by $\dot{V}O_2max$ responses (3).

The YPD model proposes that more attention is given to endurance and metabolic conditioning as the child approaches adulthood, and at no stage, it is seen as the main focus of an individual's training. Although this may appear controversial, the rationale is based on the assumption that an individual will be exposed to sport-specific endurance development while participating in organized matches or competitions and potentially within a technical skill session of their given sport. Additionally, remarkable levels of endurance are not necessarily required in the majority of sports, and endurance appears to remain trainable in adulthood. Within the education sector, cardiovascular endurance is inadvertently the most commonly developed fitness component, as asking a child to perform some form of submaximal locomotion would appear safer to teachers than asking them to participate in some form of resistance training. This is especially the case within the primary school setting in the United Kingdom, where not only have strength levels in children diminished in the last decade (31) but also it is recognized that teachers are inappropriately prepared through their teacher training to teach physical education and that statutory requirements for physical education are routinely not achieved (59).

THE NEED TO INDIVIDUALIZE LONG-TERM ATHLETIC DEVELOPMENT PROGRAMS

The YPD model is presented for both males (Figure 1) and females (Figure 2) displaying what would be classified as an average maturing child (i.e., not an early or late maturer). However, strength and conditioning coaches will habitually come into contact with athletes of varying stages of maturation, age, sex, and training history. Although previous models have alluded to these variables (7), it is not apparent that the impact of the individual variables on training prescription has been addressed. Consequently, the following section will examine how the YPD model should be manipulated when considering sex-dependent factors, timing and rates of maturation, and the training history associated with different athletes.

SEX DIFFERENCES

Despite more boys engaging in youth sports than girls, there has been an increase in the overall number of children and adolescents actively participating in organized youth sports over the past decade (77). With participation numbers increasing, it is imperative that any strength and conditioning coach is aware of the physiological and maturational differences that exist between males and females and design-specific programs accordingly.

During the prepubertal years, boys and girls will follow similar rates of development in growth and maturation, and despite consistent sex differences, strength, speed, power, endurance, and coordination will develop at similar rates for both sexes throughout childhood (14). Consequently, from a training perspective, both boys and girls can follow similar training programs during the prepubertal years. The YPD model advocates a prepubertal focus of training for both boys and girls that centers on FMS, strength speed, and agility development.

The prepubertal years are a period where children will experience rapid gains in bone mass because of modeling and remodeling (9). Exposure to appropriately designed weight-bearing exercise of moderate- to high-load intensity (with appropriate technical competency) is an osteogenic stimulus (60,61,111,115). Such training can result in large increases in bone mass and density (5,10,17,46,117), and research has suggested that this adaptive response is most sensitive during the prepubertal years (8). Due to women possessing a greater risk of osteoporosis in later life (58) and that strength training has previously been deemed to offer the potential of reducing osteoporotic fractures in older women (79), the importance of strength training for women at all stages of development should not be underestimated.

Upon the onset of the adolescent growth spurt, clear maturational differences are apparent for nearly all components of fitness, with men making greater improvements in most physical qualities, with the exception of flexibility (14,68). Typically, the onset of the adolescent growth spurt occurs around 2 years earlier in girls (about 10 years of age) than in boys (approximately 12 years of age) (14), and in the majority of instances, girls experience PHV at an earlier age than boys (12 years versus 14 years) (15). Despite an earlier attainment of PHV in girls, the magnitude of the growth spurt is greater in boys (15).

During the adolescent spurt, female athletes will undergo sex-specific physiological processes that may affect performance: increased fat mass, differential rates of development of neuromuscular strength, and height and weight; commencement of menstrual cycle, increased joint laxity, increased knee valgus angle; and increased reliance on quadriceps-dominant landing strategies, all of which have been associated with an increased risk of noncontact anterior cruciate ligament injury (2,43,51,52,72,75,86,89).

Consequently, the YPD model suggests that training strategies designed to reduce the risk of noncontact anterior cruciate ligament injuries, such as plyometrics, core strengthening, strength training, and balance and perturbation training (74), should be implemented within the strength and conditioning program of female athletes and maintained into adulthood.

EARLY VERSUS LATE MATURING INDIVIDUALS

Because of the highly individual timing of maturation, it is imperative that any LTAD model contains a degree of flexibility (65). An early maturing child has previously been defined as a girl or boy who starts their adolescent growth spurt approximately 1.5 or 2 years earlier than a late maturing child (47).

Although research has indicated that eventual adult height is not affected by early or late maturation (49), strength and conditioning coaches must appreciate that an early or late maturing child will need to be treated somewhat differently than an "average" maturing child, when prescribing long-term athletic development programs. For example, if a child is routinely monitored for stature and body mass every 3–6 months throughout childhood, growth rates, percentage of adult height, and predictions of age from PHV can be calculated (70). Using these measurements, the maturational status of a child can be approximated, thus providing a more robust estimate of their biological age.

In relation to the YPD model, if a child is deemed to be an early maturer, then the components of the model will need to be moved to the left, thus enabling the child to commence more advanced training techniques at an earlier chronologic age. In contrast, a strength and conditioning coach must allow the components of the YPD model to be moved to the right for a child who is deemed a late maturer, thereby introducing them to more advanced training at a later chronologic age, when they are physiologically ready to cope with the increased training stimulus. In either of these instances, although training prescription will vary according to chronological age, it should allow greater consistency and more accuracy in terms of the child's biological age.

INITIAL TRAINING STATUS

Irrespective of chronological or biological age, a strength and conditioning coach must give thought to the training age of any athlete that they start working with. Training age can be defined as the number of years an athlete has been participating in formalized training and is an important factor to consider when designing long-term athletic development programs. Such an approach is particularly pertinent when a strength and conditioning coach begins to work with an athlete who is approaching adulthood that has missed the initial stages of the YPD model.

In such an instance, the athletes should begin with early development of FMS and muscular strength before embarking on the training content that is commensurate with their chronological age. Conversely, should a strength and conditioning coach begin working with an early maturing 10-year-old boy who can display exceptional strength, speed, and power while maintaining the requisite technical competency, then they should not be restricted to the introductory training methods more akin to his chronological age. This concept has previously been discussed in relation to both plyometric (63) and weightlifting (65) development models.

THE YPD MODEL AS A VEHICLE FOR ATHLETE WELL-BEING

Well-being has been defined as a positive and sustainable state that allows individuals, groups, or nations to thrive and flourish (54). The philosophy of the YPD model is that it permits individualization, is athlete centered, and promotes the development of the child over performance outcomes. This may sacrifice short-term performance success but should maximize the opportunity to foster a sense of well-being and provide long-term gains. This philosophy will help the child to appreciate the benefits of training and develop intrinsic motivation for participating in training, which is a strong predictor of well-being (95) and is associated with positive behaviors (112). Additionally, provided the coach can deliver the content of the model in a positive manner the child should recognize the gains they are achieving (e.g., technical, physical, developmental), leading to increased perceived competence, which is a primary determinant of a sense of well-being in child athletes (91). This will increase the likelihood of the child being able to persist in the face of adversity and to sustain continued interest in sport (4,36).

The YPD model advocates the development of FMS from a young age, which are associated with physical and psychologic health benefits in children (66). Furthermore, the progression provided throughout the YPD model will enable the children to experience continued mastery of new tasks throughout their developmental years.

Task mastery is associated with increased enjoyment, perceived competence, satisfaction, and beliefs that effort causes success (81,101,107). Such positive experiences should also provide valuable and highly transferable life skills (33). The continued and overlapping development of a number of fitness components in the YPD model should also provide the strength and conditioning coach with the ability to develop training programs containing a high degree of variation, something that has been suggested to be important in maintaining the interest of and promoting the well-being of child athletes (85).

DESIRED CREDENTIALS FOR STRENGTH AND CONDITIONING COACHES WORKING WITH YOUTH ATHLETES

It is important to realize that the success of any long-term development program will be dependent largely on the level of education and quality of instruction received by the athlete from the responsible coach (73). Within the literature, cases of training-induced injury in children and adolescents are reported only in instances where a young athlete has been exposed to excessive, unfamiliar, and poorly prescribed training, which in both cases have led to exertional rhabdomyolysis and hospitalization (27,28). Research suggests that outside these isolated cases, most incidences of resistance training-related injuries tend to be accidental in nature, with the number of accidental injuries decreasing with age (76). However, to minimize the chances of such isolated instances occurring, it is imperative that those coaches who actively coach young athletes possess the appropriate credentials.

First, a coach must hold a relevant strength and conditioning qualification (e.g., Certified Strength and Conditioning Specialist in the United States or Accredited Strength and Conditioning Coach in the United Kingdom). Second, a coach must have a sound underpinning knowledge of pediatric exercise science, ideally at an undergraduate or postgraduate level. Finally, a coach should have a strong pedagogical background to ensure they have an appreciation of the different styles of communication and interaction that they will need to adopt with athletes, who might range from early prepubescent to late adolescent. Satisfaction of these criteria will hopefully ensure that young athlete development models are delivered in a safe and effective manner, underpinned by appropriate individual program design (inclusive of exercise selection and progressions, volume loads, rest, and recovery), realistic goal setting, and a coaching philosophy that is tailored toward the holistic development of the young athlete.

SUMMARY

The present article has provided a sound rationale for the YPD model. This approach to the development of young athletes appears to be more realistic in terms of acknowledging that most fitness components are trainable throughout childhood. Central to the YPD model is that during prepubescence, strength, FMS, speed, and agility should be the main physical qualities targeted and that adaptive responses to the appropriate training methods will be neural in nature. Once the child reaches adolescence, additional components (SSS, power, and hypertrophy) become more important owing to the increased androgenic internal environment associated with this stage of development. The need for individualization of the model should not be underestimated when dealing with athletes of different sex, maturity status, and training history. Crucially, appropriately qualified personnel should always be responsible for the implementation of the YPD model, to ensure the holistic development of children and adolescents.

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Rule differences between the LGFA and the GAA

1. Kickout after a wide ball:

LGFA: Either off the ground, from a tee or from the hands from the 13m line

GAA: Either off the ground or from a tee from the 13m line

2. Kickout after a score:

LGFA: Either off the ground from a tee or from the hands from the 20m line

GAA: Either off the ground or from a tee from the 13m line

3. Ball received from kickout by player inside 20m line:

LGFA: Free out from 20m line opposite where foul occurred if forward inside and free in from 20m line if defender inside

GAA: Free out from 20m line opposite where foul occurred if forward inside, cancel kick out and throw in the ball on the 20m line in front of the scoring space if defender inside. These apply when player inside before kick out but they may travel inside 20m line after ball is kicked and continue play once ball has travelled 13m.

4. Kickout taken from wrong place (not from scoring area):

LGFA: Retake once but if reoccurs it is free in from where foul occurred

GAA: Cancel kick out and throw in the ball on the 20m line in front of the scoring space

5. Line ball kick taken from wrong place:

LGFA: Retake kick

GAA: Throw in ball 13m in from the side line

6. Kicker crosses the line on to the pitch when taking sideline kick:

LGFA: No action...play on

GAA: Throw in ball 13m in from the sideline

7. Free kick taken from the wrong position:

LGFA: Retake kick from correct position

GAA: Throw in ball

8. Free kick taken from within 2 or 3 metres of correct position:

LGFA: No action... play on

GAA: Throw in ball

9. Free kicked to colleague not 13m from the ball:

LGFA: Free kick to opposition from where the ball was received

GAA: Free kick to opposition from where the foul occurred

10. Taking a 45m kick:

LGFA: Off the ground from 45m line opposite where the ball crossed the end line in grades from under 15 upwards. In grades below players have option of taking it off the ground or from their hands

GAA: Off the ground from 45m line opposite where the ball crossed the end line

11. Lifting the ball off the ground without putting foot to the ball:

LGFA: No action as long as girl in standing position

GAA: Free to the opposition

12. Lifting the ball with the knees:

LGFA: No action

GAA: Free to the opposition

13. Touching the ball on the ground with the hand while in a standing position:

LGFA: No action as long as the player is in a standing position

GAA: Free to the opposition

14. Player on the ground playing the ball:

LGFA: May play the ball away from herself and may score by doing so however player cannot pull the ball into her possession

GAA: A player who falls or is knocked to the ground while in possession of the ball may fist or palm the ball away on the ground, and mayscore by so doing.

15. Shoulder to shoulder contact:

LGFA: Free to opposition and red card if deliberate charge

GAA: No action...legal move

Rule differences between the LGFA and the GAA

16. Deliberate body contact:

LGFA: Free, Yellow or Red card depending on offence

GAA: Depending on contact may be a Free, Noting, Yellow or Red card

17. Handpass:

LGFA: Show striking action only in any direction

GAA: With a definite underhand striking action

18. Square ball (old rule):

LGFA: Applies at all times

GAA: Only applies from free kick/45m free situation

19. Solo bouncing run where ball is not caught:

LGFA: May use one or both hands to bounce the ball

GAA: May use one or both hands to bounce the ball

20. Commencement of play after injury stoppage:

LGFA: Team in possession at stoppage retain possession and may not score direct from kick. Where no team had clear possession it is a throw in ball

GAA: Team in possession at stoppage retain possession and may not score direct from free kick. Where on team had possession it is a throw in ball

21. Player shown first Yellow Card:

LGFA: Player booked plus sin-binned for 10 minutes playing time

GAA: Player booked only

22. Inciting an affray:

LGFA: Red card offence

GAA: Contributing to a melee – Red card infraction

23. Racist language/gestures:

LGFA: Red card offence

GAA: Yellow card for threatening or using abusive or provocative language or gestures to an opponent

24. Pulling an opponent or colleague's hair:

LGFA: Red card offence

GAA: No exact rule, presumably Rough (Yellow) or Dangerous (Red)

25. Award a throw ball for offence inside 13m line:

LGFA: Throw ball on 13m line

GAA: Throw ball on 20m line

26. Goalkeeper replacement for penalty/injury:

LGFA: Player replacing goal keeper has the option to have full goal keeper privileges if she wears a distinctive jersey.

GAA: No rule in book for this situation, however the goalkeeper shall wear a distinctive coloured jersey

27. Numbers necessary to commence and finish a game a 15-a-side game:

LGFA: 11 to start but teams may finish with less players or more if bring team up to 15 as the game progresses

GAA: 13 to start but 15 by the start of the second half. In the event of failure to comply the game shall continue

28. Cards

LGFA: Yellow (Sin Bin) and Red Card Offences

GAA: Yellow Card, Black Card and Red Card Offences

Extra differences

(These do not affect actions of referee during the game)

	LGFA PEIL na mBAN	GAA
Team sheets	In either English or Irish	In Irish
Extra Time	1 period only and possible 30m kicks	1 period only
Subs in extra time	5 allowed in each period	3 allowed
Size of ball	Size 4 for under 14's and upwards	Size 5 for minors and upwards
Under 14 games duration	30 minute halves	20 mins halves
Senior inter-county games duration	30 minute halves	35 minute halves
Size of pitch for underage games	Under 14 and upwards must use full sized pitch for 15-a-side games	Shortened pitch allowed for games up to under 15
League points	3 for a win, 1 for a draw	2 for win, 1 for a draw
Panel size	30 players	25 players
Wearing support shorts	Compression shorts may be worn but must be shorter than playing shorts	No objections

Midleton LGFA Player Pathway