Penalty Saving Program: Combining Technical, Mental and Agility Training for Keepers

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Article Objective:
The article illustrates how a goalkeeper can be trained to save penalties more frequently by combining power and mental game training by using a penalty saving program.

Article Sections
- Introduction
- Coaching approach
- Procedural notes for penalty kicks
- Plyometrics reducing reaction time
- Perception training
- Implementing a penalty saving program
- Final notes

T1 Training Age: College freshman and above
T2 Time: 2 x 30 minutes per week during off season 4-6 weeks or pre-season following a full warm-up.
T3 Tools used during the training program: Body weight
T4 Teaching: Use basic coaching knowledge and principles from strength and specific mental training for soccer goalkeepers
T5 Testing: Versus deceptive and non deceptive penalty takers
T6 Total workload: Up to 120 double footed contacts per session
T7 Team position: Goal keeper

Introduction
Effectively coaching of goal keepers is very important to their individual performance and team morale. A skilled, physically athletic and mentally strong goalkeeper gives their team confidence and is a friend to every defender when tough times happen in front of goal.

One of the greatest duels in sport is the penalty kick contest between the penalty taker and goalkeeper. The penalty taker has to use their technique, physical qualities and mental game to score and the goalkeeper has to do the same but with added disadvantages like not knowing the direction of the penalty kick and its pace toward goal; timing of movements, distance and the size of the goal. This article presents a way for coaches to decrease goal keeper reaction time and increase penalty kick saves. This is done by making research accessible and easy to use in practical sessions. The emphasis is placed on using research to guide training practice that will
improve goalkeeping success whilst ensuring training is challenging, enjoyable and fun.

Coaching Approach

Coaching goalkeepers to increase the odds of saving penalty kicks takes the patience of a golf coach. As in golf where the swing of a golf club is not as simple as it looks and takes a long time to develop, saving a penalty is much harder than it appears. We recommend the following ways to coach goalkeepers:

Always use a positive mindset and language promoting success. We recommend using what the Positive Coaching Alliance suggests as a 5:1 ratio of positive to negative feedback (Thompson 2003). Coaches should remember penalty kicks are meant to be scored not saved. Failure is inevitable but we want every goalkeeper to have the belief they can win. Listen for negative self-talk from the goalkeeper during training. Check the negative self-talk by giving the goalkeeper a different viewpoint to talk themselves up with.

Coach from behind the goalkeeper or close to the six yard area but avoid being a distraction and chattering too much. Let the training session unfold. Remember no two penalties are exactly alike and the performance time for a goalkeeper could be less than a couple of seconds. Be sparing with words and effective with design; let the goalkeeper recover their thoughts and allow them to lead the conversation. It is their performance and they want to improve it.

Avoid over coaching and flooding with technical information. Keep it simple using simple terms and activities that progress the training to the final challenge which will always be a series of five penalty kicks as in a penalty shoot out.

Design integrated sessions that are both enjoyable and varied. Get used to doing two things at once. When you watch goalkeepers they are always doing more than one thing. For example, they are moving and changing body shape or moving and handling.

Use players to take the penalties who need to improve kicking technique or penalty taking and train them together with the goalkeeper. Integrating players like this keeps training efficient and focused. Often players develop a respectful bond during sessions when they know they will improve technically and so work physically hard together.

Procedural Notes for Penalty Kicks

A penalty kick is taken 12 yards from the goal line and involves only the player taking the penalty kick and the goalkeeper. A goal is scored when the ball crosses the goal line directly or whether it hits the crossbar, posts or goalkeeper and crosses the line. The penalty kick in law is a direct kick which means it can only be played legally again by the player that took the original penalty when the ball has touched another player. Any player may touch the ball when it has moved forward of the 12 yard mark. All players not involved in the penalty kick must be at least ten yards from the 12 yard mark. Full procedural practices can be found in FIFA’s Laws of the Game.

This situation is often a definitive moment in a game. The next sections introduce the reader to physical and mental ways to enhance goalkeeping performance at the moment a penalty kick is taken.

Plyometrics Reducing Reaction Time

Agility is defined as the ability to change direction rapidly with minimum loss of speed (Sheppard & Young 2006) and for the purposes of this article plyometrics is defined as getting the muscle to shorten and lengthen as quickly as possible.

The faster muscles respond between shortening and lengthening. The shorter the reaction time between stimulus and response means goalkeepers react faster reflected by their agility at the moment a penalty kick is taken. Research suggests using side to side and horizontal jumps help goalkeepers react quicker compared to vertical jump training (Brughelli et al 2008) and evidence demonstrates goalkeepers that respond at the moment the ball is kicked are more likely to save a penalty (Savelsbergh et al 2001 & 2011). Plyometrics help to activate the brain through neurological activation too. These points identify the need to train goalkeepers to be physically capable of exploding through a possible range of movement through 180 degrees quickly, over distance and in the right way to save or parry a penalty kick.

Plyometrics are a simple and effective way for coaches to help goalkeepers to react quicker by improving their agility. Coaches are encouraged to see the penalty kick situation as a combination of rapid change of direction and perceptual and decision-making factors (covered in the next section) influencing goal keeper actions (Sheppard & Young 2006) at the penalty kick.

The benefits of using plyometrics include:

- Train explosive strength on the field
- Easy to manage training session
- Little or no equipment needed
- Position specific
- Provides variety
- Can be done in the field training area
- Straightforward to coach

Basic guidelines for leading plyometric training:

- Train an injury free goalkeeper
• Use a giving surface to land on
• Do two footed take off and landing jumps
• Focus on horizontal jumps (These are stressful but not as stressful on the body compared to vertical jumps)
• Do up to four sets of two footed jumps
• Work the goal keeper for 2-3 minutes and do a less stressful activity next for 3-4 minutes
• Don’t turn plyometric explosive training session into an endurance training session

Net Link: For more on why keepers should do plyometric training horizontally click [HERE](#).

The performance indicators for an adult goal keeper are well covered in the scientific literature (Hughes et al 2012). The goalkeeping position is an explosive, powerful, agile and skilled position requiring important qualities of timing, balance, coordination and visual perception. A goal keeper requires all these qualities in the penalty kick situation. Following the next section, the reader will be introduced to a plyometric training program that enhances the qualities outlined above.

**Perception Training**

The field of sport psychology includes research and practice on expertise, decision-making, motor control and anticipatory response training. Typically a sport psychology consultant trained in kinesiology disciplines (biomechanics, motor control, exercise physiology, sport psychology and coaching) is likely to be able to translate theory into coaching practice and enhanced player performance. A confident, curious and committed soccer coach can learn to implement the basic approach outlined below to develop their goal keeper’s mental game.

The mental game training for a goal keeper has to achieve three outcomes:

1. Train movements progressively toward game speed
2. Develop reaction speed and timing to field cues
3. Determine the right movement for the situation

   This kind mental training is based on progressive challenges that focus on mastery of movement, interpretation of field cues given by the penalty taker and automated best fit decisions to save the penalty kick. Research shows best fit automated movements are trained mentally through planned simulation training that does not involve deception.

   For example, a consistent simulation would be the penalty kick being taken low and to the right of the goal keeper three times. Variation could be the penalty taker takes three penalty kicks changing their speed of approach, type of ball contact and kick placement. Consistent mental habits have to be trained first before variation is added.

   Once consistency is maintained in goal keeping behavior, add variation slowly and through progression. Progressions can include penalty kicks at corners; short run or long run up penalty kicks to different corners; right or left footed penalty takers; low or high ball placement; different ball contact. The purpose of adding systematic variation is to permit the goal keeper to build a ‘body of experience’ so they can respond at the moment of the kick with a best fit automated response. The mental game is developed by depositing experience into the physical and mental memory for use later.

   Coaches should focus the outcome of a training session not only on the outcome of penalties scored or saved but what was learned. Coaches should ask questions such as:
   - What did you learn from the third penalty save?
   - What did you identify in the way the penalty taker approached the ball?
   - How did you respond to what you identified?
   - If you could do it again, what would you do differently?

   This type of debriefing focuses the goal keeper on what they learned for use later. By adopting a positive coaching approach and recognizing field training develops the goal keeper’s mental game, a coach can help improve his or hers’ performance. Good coaching builds a good mental game.

**Implementing a penalty saving program**

Laid out below is an example of a six week plyometric and penalty saving training program. Coaches should note basic handling and movement activities, a warm-up, before doing these sessions is helpful.

Net Link: For a complete program on plyometric training for soccer click [HERE](#).

The sets and repetitions are deliberately consistent for easy administration. The differences are the type of movements and their intensity. The penalty kicks are taken between sets after the mind and muscles have been activated. Here the soccer coach can work with the goal keeper to develop their anticipation and technical response to the penalty kicks. After six weeks each goal keeper will complete more than thirty four penalty kick repetitions over six weeks in addition to agility development.

**Final notes**

Coaches can improve goal keeping reaction time with systematic field training using muscle and mind activation strategies. We chose the penalty kick to show how to integrate training but with creativity, reaction time and agility training could be done for many goal keeping activities like shot stopping, dealing with crosses and passing and receiving just like field players.
**Six-week training program**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Drills</th>
<th>Sets x Reps</th>
<th>Rest Interval &amp; penalty kick repetition</th>
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| 1 & 2 | 3 low and 1 moderate intensity drills  
Standing jump forward  
Standing jump to right  
Standing jump to the left  
Multiple jumps 2 jumps to the left/then 2 jumps to the right | 3 sets x 8 repetitions  
96 jumps total | 4-6 min  
Take 2-3 penalties during the rest interval. Narrow the goal and make all penalties consistent and ‘savable’. Finish with five penalty kicks. |
| 3 & 4 | 2 low and 2 moderate intensity drills  
Knee tuck jumps in place (land in the same place the jump started)  
Ski jumps done over a 6 inch tall cone  
Standing jump to right  
Standing jump to the left  
Multiple jumps 2 jumps to the left/then 2 jumps to the right | 3 sets x 8 repetitions  
96 jumps total | 3-4 min  
Take 2-3 consistent penalties during the first two rest intervals. Use regular goal size. Day 1 add use consistent penalty approach. Day 2 introduce variation. Finish with five penalty kicks. 3 consistent and two varied. |
| 5 & 6 | 2 low and 2 moderate intensity drills  
Knee tuck jumps in place (land in the same place the jump started)  
Ski jumps done over a 6 inch tall cone  
Standing jump forward  
Multiple jumps 2 jumps to the left/then 2 jumps to the right | 3 sets x 8 repetitions  
96 jumps total | 3-4 min  
Take 2 consistent penalties during the first two rest intervals. Use regular goal size. Introduce variation in day one and repeat on day 2. Finish with five penalty kicks. |

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**References**


**Ice Skater:** Assume a standing position with feet shoulder-width apart. Jump laterally to the right over cone, landing on the right foot. Immediately jump laterally to the left over cone, landing on the left foot, pushing off one leg onto the other and repeat.

**Tuck Jump:** Have the player standing in place and repeatedly jump while pulling the knees into their chest. Emphasize quick ground touches, minimizing the time spent on the ground between jumps.