THE SCIENCE OF SHOOTING POWERPOINT

jimsolumsos@yahoo.com

Dr. Jim Solum
© Copyright 2011
SHOOTING
IS

WATER

POLO
BECOME
A
GREAT
SHOOTER
CONTENTS

OUTSIDE SHOOTING 249 Slides

1. VERTICAL GAME 27-51 24s
2. THE PREP STAGE 52-82 30s
3. THE PERFECT CATCH 83-158 76s
4. THE PERFECT PASS 159-195 27s
5. THE PUMP FAKE 196-233 38s
CHAPTER 1
THE VERTICAL GAME
21 Slides
6-27

Dr. Jim Solum
© Copyright 2011
INTRODUCTION

The vertical game is the game of water polo played by vertical outside shooters and centers in the front-court and 6-on-5 offense.

Vertical game demands a shooter with a vertical back who elevates high out of the water with strong legs.

The vertical game cannot exist with a player lying on the back or low in the water.
The Vertical Shooter Is The Vertical Game.
THE HORIZONTAL GAME IS THE GAME OF COUNTERATTACKS AND DRIVES.
The vertical game is the legs.

No legs
No shot
No pass
No win
1. THE VERTICAL GAME

After the counterattack ends the horizontal game of driving ends and the frontcourt offense and 6-on-5 of vertical play begins.

Water polo player is both a good swimmer in the horizontal and a good shooter in the vertical.
1. THE VERTICAL GAME

The player needs strong vertical legs.
Vertical legs require eggbeater leg exercises.
Flutter kicking during the counterattack is an example of horizontal legs.
Swimmers have weak vertical legs.
1. THE VERTICAL GAME

The legs are the shooter.
Swimming laps does not build strong legs.
Flutter kick and eggbeater use different muscles.
Vertical Game demands a vertical back with strong legs.
Elevate With The Legs

Legs elevate the shooter and throw the ball.

No legs = no shooter.

Swimming uses arms.

Water polo uses legs.
1. THE VERTICAL GAME

The Vertical Shooter develops the legs.

The stronger the legs, the stronger the shooter.

All mistakes in shooting are leg mistakes.
VERTICAL GAME

The Vertical Game demands proper leg positioning.

LEFT

RIGHT

ROTATE
VERTICAL GAME

LEFT, RIGHT, ROTATE

LEFT FOOT Forward, Point, Pivot
RIGHT LEG Balance, Power
ROTATE HIPS Cock and Shoot
VERTICAL GAME

LEFT, RIGHT, ROTATE

LEFT FOOT  Forward, Point, Pivot
RIGHT LEG  Balance, Power
ROTATE HIPS Cock and Shoot
LEFT

RIGHT &

Point Left Foot
Right Leg Back
Rotate Hips

ROTATE
1. THE VERTICAL GAME

SUMMARY

1. The vertical game is vertical play in the frontcourt offense.

2. Horizontal game is counterattacks & driving.

3. Vertical game: outside shooting, 6-on-5’s, 2-meter play.

4. The shooter has a vertical back and strong legs.
1. The vertical game is the driving game.
   True
   False

2. The vertical game has shooters lying on their back when passing and shooting.
   True
   False
1. VERTICAL GAME Q & A

3. The vertical game demands vertical players and shooters.
   True
   False

4. 6-on-5, 2-meter play and the outside shot are examples of the vertical game.
   True
   False
1. VERTICAL GAME Q & A

5. A shooter falling over throws the ball accurately.
   True
   False

6. A shooter who does not use the legs throws a powerful and accurate shot.
   True
   False

7. The left foot aims the ball.
   True
   False
1. VERTICAL GAME Q & A

8. All mistakes in throwing are leg mistakes.
   True
   False

9. To elevate high out of the water requires:
   A. No legs
   B. A strong right arm
   C. Strong leg kick
END
CHAPTER
1
CHAPTER 2
THE PREP STAGE
26 Slides
28-54

Dr. Jim Solum
© Copyright 2011
THE PREP STAGE
Pre-Catch Technique
Player sets up to catch the ball.
Good prep stage leads to a good shot.
INTRODUCTION

The prep stage is the pre-catch stage.

The preparatory stage sets up the catch and the eventual shot by angling the body. It is a different stage than cocking the ball and throwing the ball.

Mistakes made in the prep stage are irreversible and destroy the throwing motion.
2. THE PREP STAGE

INTRODUCTION CONTINUED

The player prepares, a head of time, to catch the ball by angling the body with the left foot forward, the right leg half way back and left hand ready to sweep to the left.
The prep stage set ups the good catch.

The good catch sets up the shot by positioning the shooter to cock the ball correctly.

Good cocking sets up the good shot.

Bad prep, bad catch, bad cocking, bad shot.
2. THE PREP STAGE
BAD PREP
BAD CATCH
BAD COCKING
BAD SHOT
2. THE PREP STAGE

POOR PREP

The shot is **dead** before the ball ever hits the shooter’s hand.
2. THE PREP STAGE

POOR PREP

Ball hits hand of the poorly positioned player and knocks him over.

Horizontal shooter takes a bad shot.
2. PREP STAGE

Prep stage angles the player to the ball.

Sets up the catch before the ball arrives.
2. PREP STAGE

Angled position allows player to catch the ball and rotate back.
2. PREP STAGE

PREP STAGE

1. Left foot point
2. Right leg back
3. Mild left shoulder point
4. Left hand ready to sweep left
2. PREP STAGE

PREP STAGE

4. Left Hand Sweeps Left

Left hand supplies 50% of body rotation by sweeping to the left.

Left hand acts as 3rd hip.
2. PREP STAGE

SQUARE CATCH POSITION

1. Feet, hips and shoulders are square to the ball.
2. A bad idea.
2. PREP STAGE

SQUARE CATCH POSITION

2. Square position prevents
   a. Arm Cock
   b. Left Hand Sweep
   c. Hip Rotation
   d. Vertical Back
2. PREP STAGE

Square shooter’s right arm and body cannot catch ball correctly.

Catch Weak
Cocking Weak
Shot Weak
2. PREP STAGE

SQUARE POSTURE

Common posture in girls and age group players.
2. PREP STAGE

SQUARE PLAYER FALLS OVER

1. Square player can’t rotate body during catch.

2. Falls on back.
2. PREP STAGE

SQUARE PLAYER ON BACK = NO PASS, NO SHOT
PREP STAGE POSITONS
THE
PLAYER’S LEGS
PREP STAGE LEG POSITIONING

LEFT  Leg forward

RIGHT Leg back

LEFT  Arm ready to sweep
2. PREP STAGE

SUMMARY

1. Prep stage prepares the player to catch the ball.

2. Player points the left foot forward, mildly points the left shoulder, the right leg is partially back.

3. The angled player catches the ball and rotates back into a cocked position using the left hand.

4. A square player catches the ball and falls over.
2. PREP STAGE

SUMMARY

5. *Left hand rotates body 50% for catch.*

6. *Left hand sweep rotates body 50% for catch.*

7. *The good prep stage leads to a good catch, good ball cocking and a good shot.*
2. PREP STAGE Q & A

1. Prep stage is more important than the shot.
   True  False

2. Prep stage sets up the catch and cocking the ball.
   True  False

3. The prep stage positions the player to be square.
   True  False
2. PREP STAGE Q & A

4. Prep stage has a mild left shoulder point, hips partially rotated and the right leg back.
   True
   False

5. The shot is dead before the player ever catches the ball if the prep stage is wrong.
   True
   False
2. PREP STAGE Q & A

6. A poorly prepped player falls over on the back and throws the ball over the cage.
   True
   False

7. A square player falls over when catching the ball.
   True
   False

   True
   False
2. PREP STAGE Q & A

9. Left hand is unimportant in catching the ball.
   True
   False

10. Left hand sweeps to left to help rotate body.
    True
    False

11. Only the right hand catches the ball.
    True
    False