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Describing a Movement

Analysis of serving a volleyball (from the stand point of a right handed person)

Phase I: The step

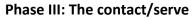
The left leg steps anteriorly by flexing the hip along its sagittal plane. The knee is slightly flexed once the step has been taken. Most of the weight of the body is on the front left foot. The right foot is plantar flexed with the weight on the balls of the foot/toes. The left arm is extended to 90 degrees of shoulder flexion in the horizontal plane. The left wrist is in anatomical position holding the volleyball.

Meanwhile, the torso is rotated along the right longitudinal axis. The right shoulder is abducted to 90 degrees with the elbow flexed to 90 degrees. The right palm is open with the wrist in neutral and in line with the forearm.

(In the picture on the right, the right elbow should be more flexed).

Phase II: The toss

The left arm flexes slightly at the elbow to a 45 degree angle. The shoulder is flexed and abducted while the elbow extends to 0 degrees in order to toss the volleyball into the air.



As the weight shifts forward to the left foot, the shoulders, torso and hips internally rotate forward to a neutral position and the right elbow follows and starts to horizontally adduct. The wrist extends posterior to the elbow about 20 degrees, with the palm still open and flexing. The right arm goes to extend up and forward in order to make contact with the ball. The wrist hyper extends slightly, makes contact with the ball at a neutral position. There is only strong wrist flexion when a top spin serve occurs. With a float serve, there will be no flexion (follow through) of the wrist. Once contact has been made with the ball, the left arm adducts to 0 degrees.





