

Basketball free-throw shooting: An analogy between the shooting arm and a rifle barrel

You have all heard the saying “The squeaky wheel gets the oil”. In reference to free-throw shooting in basketball the best coach is the ‘missed shot’. When we feel bad or get sick the first and immediate response is “what is the source of the pain”. There is an immediate thought process that focuses on the closest area of the pain and the accompanying action is to take a pain killer, rest, or depending on the severity you seek medical advice. The worse you feel the more motivated you become to ‘feel right’ or to attend to daily duties without any conscious thoughts on physical discomfort.

This is exactly the same process we should use to treat a missed free-throw. (I use a hyphen because it ties the word ‘free-throw’ together). The main reason this topic needs some expansion is that through my own scientific observations I have calculated that about 75-80% of shots are not ‘dead center’ to the center of the rim. This is a huge margin of error and the main problem in the basketball world is that you never hear of any instruction or coaching on how to shoot the ball ‘straight’. Next time you watch a ball game on TV take note of how many shots taken have the correct distance but are ‘off-line’ or crooked. It is an amazing phenomenon and can be corrected with some scientific understanding and application of relevant principles.

One major part of the problem of shooting a crooked shot starts with the grip or the way the hand is aligned on the ball. If the hand is not placed on the ball in a scientifically correct manner then it will have future repercussions on the ‘follow-through’ which is the most important part of any shot. The ‘follow-through’ is the computer processor which programs the shot for success.

Just notice when you use the keyboard and type words on a page how easy it is to press a wrong key or even leave something out (oops, I left out the ‘w’, looks weird huh?) and if you don’t check what you typed you will have grammatical errors. There is right and there is wrong. If you are typing a resume or an official document you definitely do not want to have any errors. We are judged by our application. There is no difference when shooting a basketball. A slight miscalculation or an inch of lateral movement in any part of the fingers, arm or elbow will cause a shot to miss its’ mark. Missed baskets lose games, cause loss of confidence and a plethora of other concerns.

Since shooters are made and not born, the pressure is upon the players and coaches to get this process right. Perfection on the free-throw line is attainable and maintainable but it requires constant and total mental control of the physical capacity of the body. Great shooting is not just thrusting the ball in the direction of the rim. The other day I went to watch a local girl’s high school basketball game. Naturally I observed the shooting mechanics of the participants, as I always do. I can’t be critical anymore because great shooting mechanics are

simply absent on the High School level on a large scale. The average High School free-throw percentage is about 65% from the free-throw line. I would say that is a failing grade and nothing to brag about and I bet these players shoot with their eyes OPEN.

Let us put this process in some perspective since it is so important. The free-throw is the pivotal shot in basketball. Every other shot has a connection to the free-throw and a similarity in release application. (More on this in another article)

First of all, if you have shot a rifle, shot gun or B-B gun you would have noticed that you naturally brought the gun stock up to your shoulder and pointed the barrel down the target line in line with your dominant eye and you would have your trigger finger on the trigger ready to fire when you are 'ready'. Notice also that you do not pull the trigger until you have the target, the peep sight at the end of the barrel and your eye all in the 'line of fire'. I also call this the correct 'shot pocket' when prepping to shoot.

Compare this process to the free-throw attempt. You pick up the ball (usually with the dribbling hand to partner with the guide hand), the set the ball in **your** comfort zone 'shot pocket', which may or may not be scientifically correct. Let's compare. When you pick up a rifle and you are ready to shoot, you do not hold the barrel of the gun near the hip or above the head or in front of the stomach. You brace the stock with the shoulder and align all other parameters (peep-sight, barrel, eye and target) before shooting.

So many players today have a wrong grip on the ball, (index finger in center of ball with fingers spread as wide as possible so that pads only touch ball and no palm) start in a wrong 'shot pocket' and consequently have a flawed follow through. The ideal 'shot-pocket' is to have the ball about 2 to 3 inches above the center of the forehead where your eyes can see the center of the rim, the inside of your shooting wrist, which is the peep-sight lined up with the rim center and the shooting arm when extended on the shot forms the rifle barrel. This method allows for complete vision and control. But this is not for everybody because it takes strength and practice to shoot from this position. Players who are weak will have 'shot-pockets' usually starting from the face and below, due to lack of strength.

Also the ideal follow through should be an extended, locked arm, with fingers spread and parallel to the floor with only two joints bending and that is the wrist and elbow. Watch especially that no lateral movement occurs during or after the ball is released and especially in the fingers. At the end of the shot, the index finger should align with the center of the rim, down the inside of the shooting arm and the right eye on a right handed shooter should all be in alignment.

Now you have a few pointers to concentrate on as you practice shooting. Of course there is a lot more involved as far as finger pressure and finger

accountability on the ball and what finger has what role in the shot process. But at least this gives a little 'insight', (pun intended) into the line of fire. Also understand that when I refer to free-throw shooting I mean the same process occurs with every shot especially 3 point shooting. The bad thing about shooting further out is that a slight error in your follow mechanics magnifies the chance of missing the basket.