



# Hoop Approach Stroke (Hop & Pirie Poke)

<https://www.youtube.com/watch?v=JiepQ8BLGUc>

## Hop (or Jab) Hoop Strokes

These strokes attempt to run a hoop with the strikers ball (SB), when in very close proximity to a dead ball (DB) which is blocking the intended hoop. The closer the balls are to each other the faster the mallet has to be withdrawn to avoid a double tap (DT) which is a fault.

A referee would mark both balls, judge the distance between them prior to the stroke.

Careful analysis would then determine once the SB goes through the hoop, whether this is a clean attempt. It has been repeatedly shown that when the gap is <20mm, the chances of a DT are very high. Both the mallet sound and the static position of proximity suggests the chances of a fault. However the final stroke is to be evaluated real time.

<http://www.youtube.com/watch?v=BTXZeQgmz68> (Temlett 2013)

<https://www.youtube.com/watch?v=LbkF76XGMtc> (Mulliner 2013)  
shows three of these Hop attempts at various distances in slow-motion

## The Pirie Poke (PP)

In an attempt to move a ball forwards through the hoop, when near or on the hoop leg. Back spin is generated by the mallet striking downwards and backwards, to spin the ball forwards. There are multiple faults that could occur with this stroke.

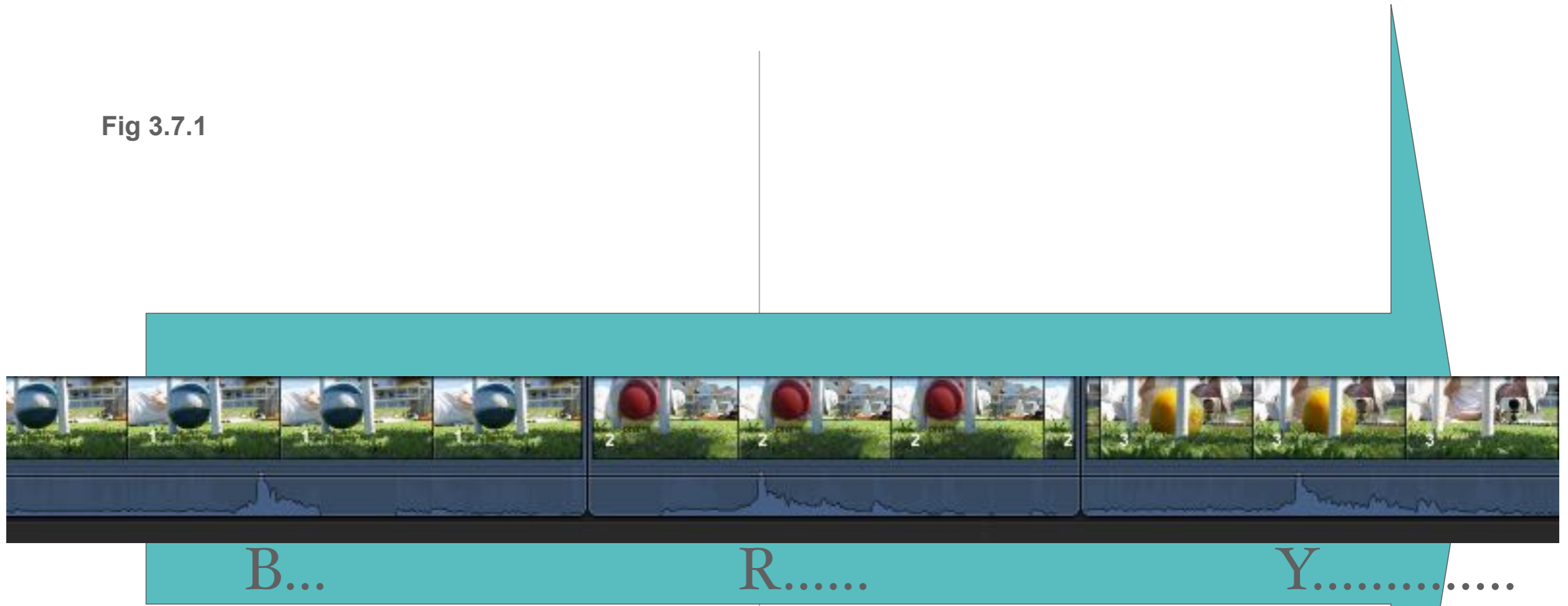
Three Hoop Shots (PP) (Kroeger 2013)

[http://www.youtube.com/watch?v=QMM\\_0X2lwjY](http://www.youtube.com/watch?v=QMM_0X2lwjY)

Five PP's (Temlett 2012)

<https://www.youtube.com/watch?v=JiepQ8BLGUc>

Fig 3.7.1



**Legend to the Pirie Poke shown and recorded here:**

Three balls struck with the sound wave in blue strip (below the photographs) and the ball position before running the hoop above, (Black 4 frames, then Red, finally Yellow 3 frames each) showing the mallet face “scraping along the ball” with both a prolonged mallet-ball contact time, (shown by the black dotted lines), or a push forward along the back of the ball. This is where many DT also occur. The wire makes a much higher pitched sound not shown in these audiograms.

### Fig 3.7.2

Examples of two of five potential faults with this hoop approach stroke on the near wire (Pirie Poke):

1 If a crush on the near wire takes place the slow motion camera shows the hoop moving before the ball indents the grass (not shown here).

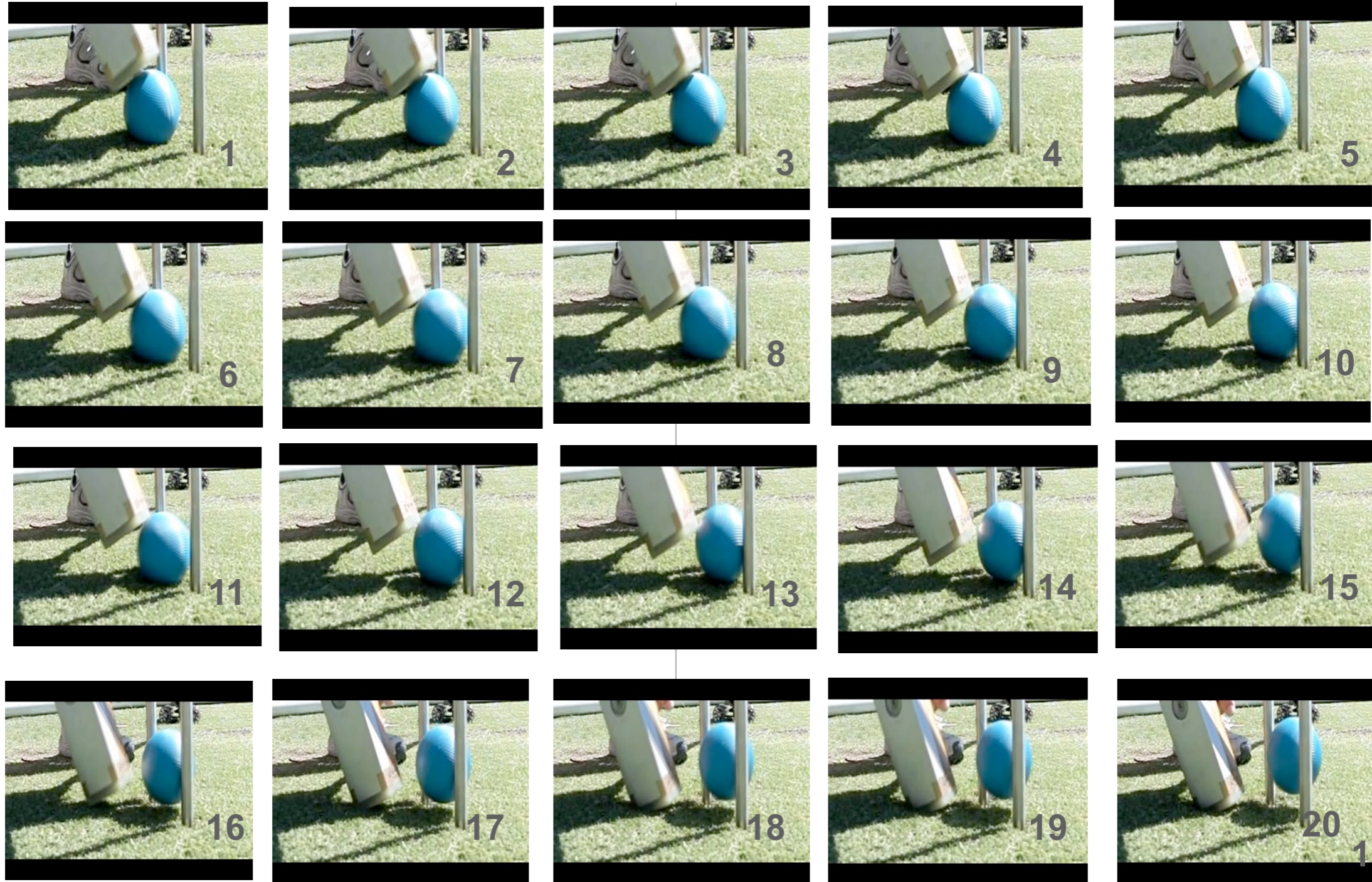
2 DT: Note the top sequence where a gap occurs, grass indents, and ball even changes shape. Then a gap opens (seen here as the background shoe or the white board behind striker) and closes again with the DT this time on the mallet bevel - top row, blue ball.

3 Now if the mallet slides along the ball there is prolonged contact - second row- second rows.

4 If the ball hits the far wire and the mallet bevel is still in contact, a second crush zone exists (not shown here, but third row very close)

5 Finally the mallet frequently crashes into the grass, damaging the lawn - bottom row.

Fig 3.7.2



Ultra slomotion (20 000 fps), 20 selected segments to show a gap between ball and gap again frame 11&12, and thereafter a bevel scrape after initial contact to DT contact blue ball, finally mallet slamming into lawn damaging the grass structure. (ie: Total 3x faults) frame 3&4 then DT

**Example of the sound of a double tap.** The picture shows the initial impact mallet on orange ball. Second sound is the ball away from the mallet on slomotion replay (see gap in left picture, ball indented in the grass), and DT peak (middle picture, on the mallet face edge or *bevel* here), before the third peak where the ball having left the mallet, now strikes the hoop upright, with a clearly different sound. (not a crush below),. There was also some “lawn damage”.

