

Club speed

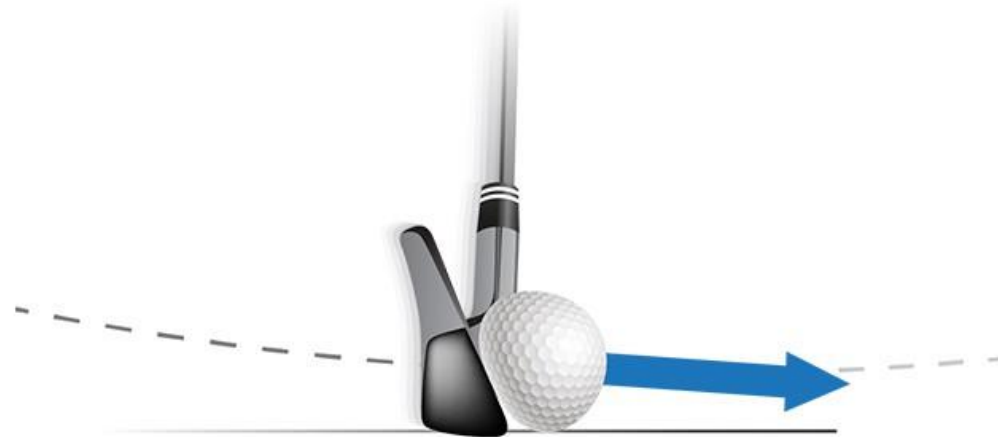
Club Speed is the speed the club head is traveling immediately prior to impact.
Club Speed determines a golfer's potential distance.



Angle of attack

The up or down movement of the club head at the time of maximum compression. Attack angle is measured relative to the horizon.

Shots hit off the ground should have a negative attack angle in order to optimize the trajectory.



Club Path

The in-to-out or out-to-in movement of the club head's geometric center at the time of maximum compression

Club Path is the direction the club head is moving (right or left) at impact and is measured relative to the target line.

Most golfers relate this number to hitting the ball “in-to-out” or “out-to-in”.

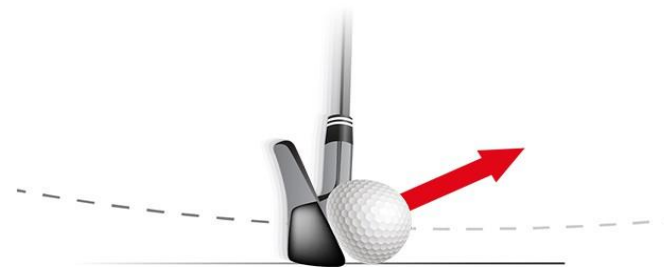


Dynamic Loft

The vertical angle of the club face at the center-point of contact between the club and ball at the time of maximum compression

Dynamic Loft is the amount of loft on the club face at impact and is measured relative to the horizon.

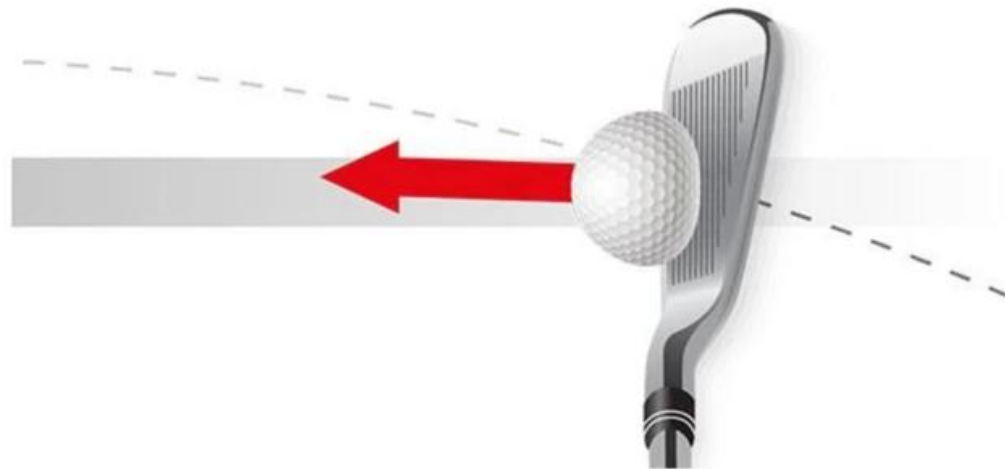
The golfer's attack angle, how the shaft bends, how the golfer releases the club head, whether the club face is open or closed to the club path, and where the ball makes contact on the club face can all affect the dynamic loft.



Face Angle

Face Angle is the direction the club face is pointed (right or left) at impact and is measured relative to the target line.

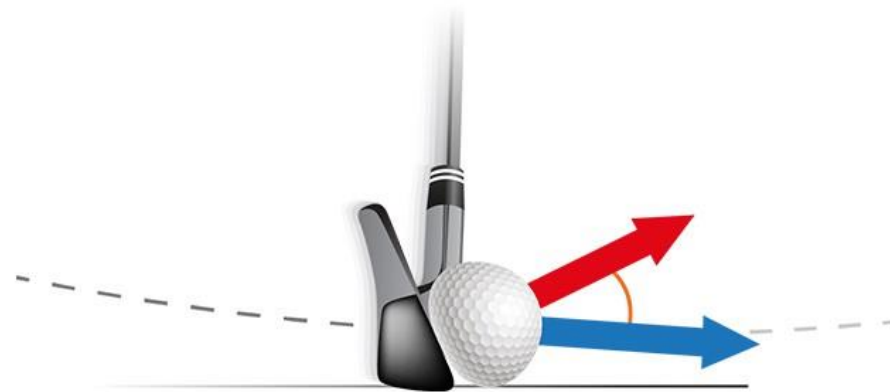
Most golfers refer to this as having an “open” or “closed” club face.



Spin loft

Spin loft is approximately the angle between the dynamic loft and attack angle

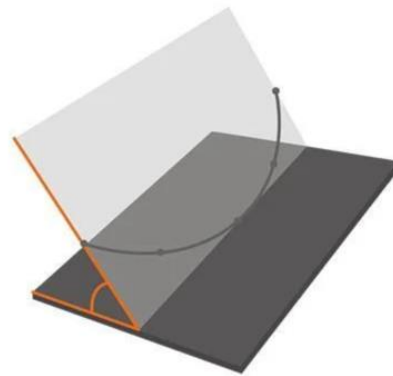
Spin loft is actually the three-dimensional angle between the direction the club head is moving (both club path and attack angle) and the direction the club face is pointing (both face angle and dynamic loft).



Swing Plane

Swing plane is the vertical angle between the ground and the circle that the club head travels on during the bottom portion of the swing arc

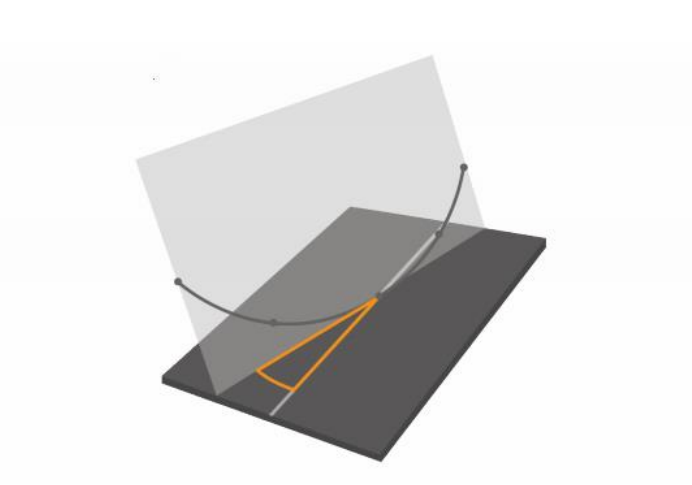
Swing plane is similar to what instructors refer to on video as “shaft plane”, but shaft plane uses a 2D camera image at one point (frame) in time.



Swing Direction

Swing direction is the direction the “base of the hula hoop” is pointed relative to the target line

Swing direction is the angle between the base of the hula hoop and the target line.



Low Point

Low point provides a different way of describing attack angle.

Low point is defined as being before or after impact.



Ball Speed

Ball Speed is the speed of the golf ball immediately after impact



Smash factor

Smash Factor is ball speed divided by club speed

Smash Factor relates to the amount of energy transferred from the club head to the golf ball.



Launch direction

Launch Direction is the initial direction the ball starts relative to the target line

A positive launch direction indicates a ball that starts right of the target and a negative launch direction indicates a ball that starts left of the target.



Launch angle

Launch Angle is the angle the ball takes off at relative to the horizon

Launch angle is highly correlated to dynamic loft.



Spin rate

Spin Rate is the amount of spin on the golf ball immediately after impact

Spin rate has a major influence on the height and distance of a shot.



Spin Axis

Spin axis represents the amount of curvature of a golf shot

A negative spin axis represents a ball curving to the left, a positive spin axis represents a ball curving to the right, and a zero spin axis represents a shot that has no curvature.



Height

Height is the maximum height or apex of a shot

The height of a shot will vary considerably depending on the combination of ball speed, launch angle, and spin rate.



Carry

Carry is the distance the ball travels through the air

An important thing to know about carry is that the value is given for a landing area that is the same height as where the ball is hit from.



Side

Side is the distance from the target line based on where the ball lands
Just as with carry, side is based on “carry flat”.

