

# The impact Code

Improve faster by working on the five strike elements that control your ball's journey

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**A**ll golf swing techniques and theories have one thing in common; they all accept the ball will only do what the clubface tells it. But until recently, impact – golf's moment of truth – has been mostly left alone by golf tuition, which has followed the slightly hopeful premise that if you take care of the rest of your swing, impact looks after itself.

Now however, thanks to modern technology like high-speed cameras and launch monitors, impact has finally yielded its secrets. This better understanding of impact has created a new set of five ball flight laws – golf's true fundamentals.

These revelations have allowed us to flip tuition on its head; instead of treating impact as something that happens as a result of other factors, we can go straight in and work on the contact itself.

Here, I'll explain the importance of all five laws and show you how to improve in each area. This approach gets to the heart of what affects the success of the shot – and that'll help speed up your progress. ➤

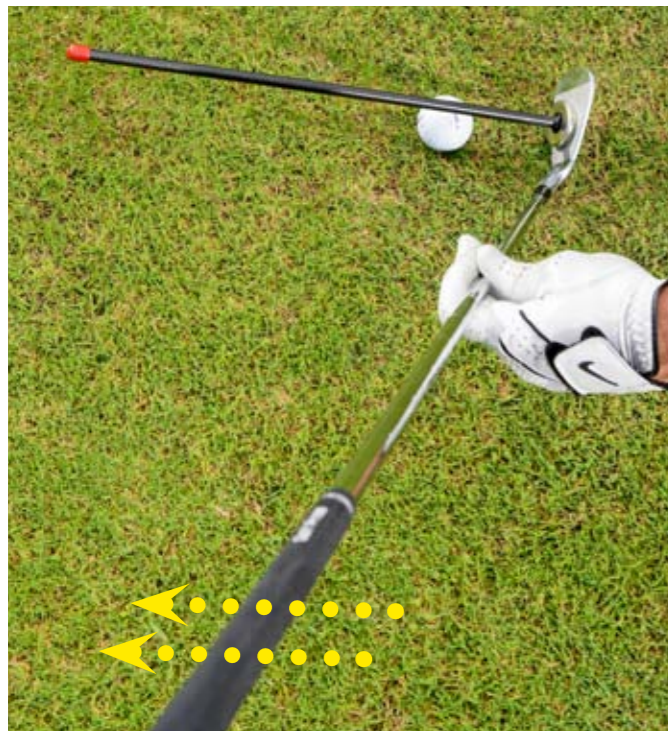
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## Flight Fundamental #1 Face aim at impact

Before launch monitors, we believed swingpath set the ball's starting direction, while the clubface's aim controlled spin. We now know that, irrespective of the swing path, face aim largely dictates the ball's

starting line – according to TrackMan, around 85% with driver and 75% with a mid-iron. The ability to control the face, then, is critical, and that's mostly done through grip. Work on this four-step plan.



### 1 Lean the handle to square the face

I've attached a gadget to the clubface to amplify its aim. This image shows how, to square the face, the handle of the club must lean a little towards the target. Establish this shaft lean first.



### 3 Place the lower hand against the thumb

The top thumb position sets a platform for the lower hand positioning. Bring the lower hand to the club, palm facing target. Place its fleshy palm against the side of the thumb, and close the fingers around.



### 2 Set the gloved thumb position

Let your left or lead arm hang from the shoulder. With that forward shaft lean, your hand naturally finds a position which puts the thumb a little behind the top of the shaft – to the right for right-hander.



### 4 Impact: Hands lead clubhead to square the face

As we saw at address, a square face means the handle is in front of the blade. Follow this process and you'll create wrist angles and positions that will create effective shaft lean through impact.

## Flight Fundamental #2 A centred strike

Launch monitors reveal two problems caused by missing the sweet spot. The first is loss of distance: stats show that missing the centre by just half an inch can cost you around 15 yards with a 100mph swing speed. The second is unwanted curvature, caused by the so-called gear effect; toe strikes produce hooks, heel strikes slices. Here are two drills that will help you find the middle of the face consistently.

### 1 Improve impact balance

When your weight moves into your toes at impact, you will tend to present the heel of the club to the ball; fall back into your heels and you can expect contact off the toe. Try this simple drill to improve your impact balance:

Set up to a 7-iron. Now place coins under your lead foot toe and trail heel. Retake your stance and swing normally.

### 2 Focus on arm hang

Good posture places the hands below the shoulders. To find the sweet spot, retain that relationship through impact. Mark your set-up hand position with a cane.



### Train your downswing path

Swing slowly from the top, hands moving to the cane, to train the feeling of the arm drop that allows your hands to return to their address position at impact.



As you swing through, aim to expose both coins to any onlooker. That places pressure where you need it for a sweet strike; under your lead heel and along your trail instep.

### Learn your strike pattern

Knowing your strike pattern is the first step to taking the right action. To find out, ask your local pro for some impact tape. Just stick the tape to your face, hit balls and check the results.

# Flight Fundamental #3 Impact swing path

Launch monitors show that when the ball is struck with a descending blow, as with short irons, your ideal swing path is actually slightly out-to-in. Conversely, an upward attack, as for a driver, works best with a slightly in-to-out path. It's down to something known as D-plane. We don't need to get into the physics of that here – but knowing how to influence swing path will help you match the swing to the shot.



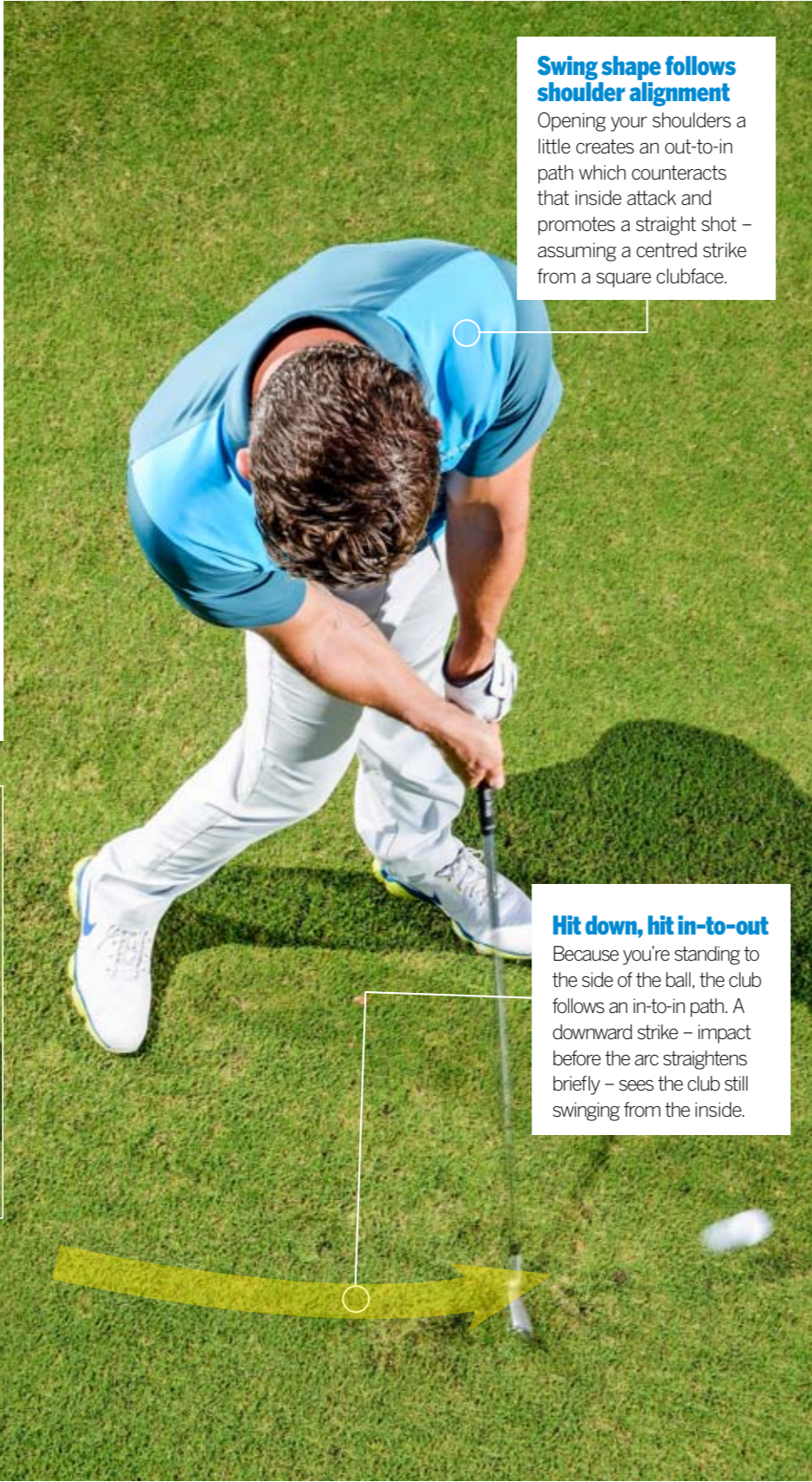
## Feel a neutral path

Before you can begin to tailor swing shapes to the shot, boost your feel for a neutral path. Find an old sponge and a shaft/cane. Place the cane inside the ball, aiming down the target line, and the sponge on the far side, leaving enough room for the clubhead to swing between them. Now hit balls. If you find yourself clipping the cane, your path is in-to-out; catch the sponge and you are out-to-in.



## Shoulder aim controls path

Swing path is dictated by shoulder alignment. To set up the in-to-out path needed for an upward, driver swing, your shoulders should aim a little right of your target; but here, for a short iron, they should aim a touch left.



## Swing shape follows shoulder alignment

Opening your shoulders a little creates an out-to-in path which counteracts that inside attack and promotes a straight shot – assuming a centred strike from a square clubface.

## Hit down, hit in-to-out

Because you're standing to the side of the ball, the club follows an in-to-in path. A downward strike – impact before the arc straightens briefly – sees the club still swinging from the inside.

# Flight Fundamental #4 Angle of attack

Your attack angle affects path and power, but mostly spin. A steeper attack tends to add spin, helping the ball hold its line and making it rise and drop more steeply; an increase of 1000rpm makes the ball's descent 7% steeper – ideal for holding the green. But high spin also robs distance, meaning a lower-spinning, shallower attack is better for driver. Control attack angle and control your spin.



**Impact** Your chest bone controls the swing's low point. If it's forward of the ball at impact, you will deliver the downward attack that works for irons.



**Set-up** Use ball position to promote the attack you need. Here, for a descending iron strike, the ball's just forward of centre and my sternum is over the ball.

## Create a task to control attack angle

You will find it easier to train both a steeper and a shallower attack angle by giving yourself a clear goal for the shot. Create a steeper attack by forcing yourself to hit under something, a shallower attack by hitting over it.

## Triangle target

Here, I've built a simple triangle some three or four strides in front of me, on my target line. I've used alignment canes, but clubshafts will work too. My goal is simply to strike balls through the triangle.

## Flight focus

Creating a goal puts your attention on the ball's flight. When you need to keep the ball low, you will instinctively promote the weight shift and forward shaft lean to accomplish the task.

## Strike down for spin

Hitting under this triangle is ideal for training an iron strike, which works best with a compressing impact that increases spin. TrackMan stats suggest the average tour pro hits strikes down on the ball by 4.1 degrees with a 6-iron.

## Flight Fundamental #5

### Clubhead speed

Launch monitor data shows that if you can create just three extra mph in your swing, you'll hit the ball around 10 yards further. Speed is created by following a specific sequence, which starts in the pelvis and

moves outward. Because of this, you'll achieve top club speed when the clubhead reaches the ball last. To do that, you need the club to 'lag' behind as you attack the ball. Here are two ways to achieve that.



#### Hand heel on top of the grip

That grip places the heel of your gloved hand on top of the handle, vital if you are to create the wrist cock that allows lag. So long as you move in the correct sequence, you can find this powerful delivery position, the club lagging behind your weight shift and rotation.

#### Lag through grip

To get the club to lag, you must be able to create an angle between your lead arm and shaft. That means your grip must allow the wrist to cock (hingeing up against the thumb). Ensure the handle sits in the crook of your little finger, and runs through the middle joint of the first finger.

#### Lag through sequencing

To ensure the clubhead arrives fastest and last, you need to create a downswing sequence that starts in your core and radiates outward. Train this sequence with this two-stage step drill.



#### 2. Plant your lead foot

Replanting your foot primes your lower body to initiate the downswing. That puts the arms and club into an attitude of following, rather than leading. Your core's momentum sends energy into your torso, which transmits speed into your arms, and finally the club.

#### 1. Lead foot lifts

Make your normal backswing, but allow your lead foot to lift off the ground at the top. Avoid a sway on to your trail side, but let your back foot take your weight.