

# Moment of Truth

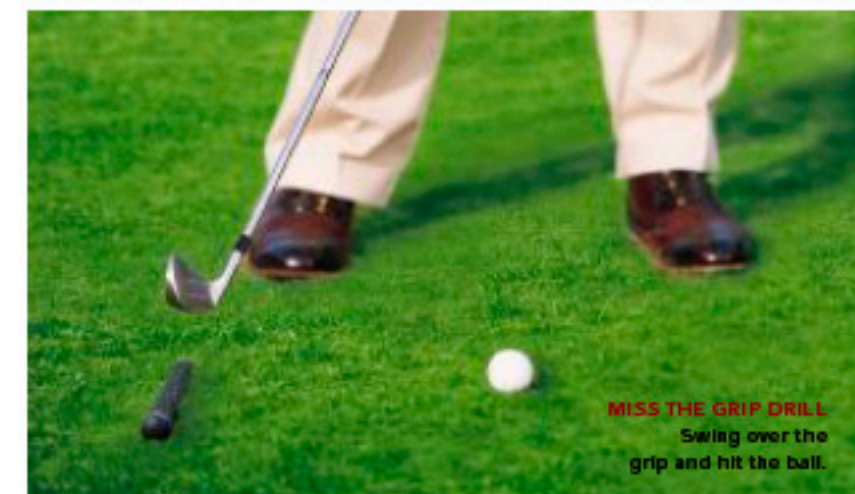
Which tip most improves impact?



**IMPACT BAG DRILL**  
Make a swing and "thump" the bag.



**UNDER THE STRING DRILL**  
Try to hit the ball under the string.



**MISS THE GRIP DRILL**  
Swing over the grip and hit the ball.

**I**mpact is the only position that affects where the ball goes. That's why it's commonly called the "moment of truth." This month we tested three drills designed to improve impact on iron shots.

First we tested the Impact Bag Drill: The golfer takes swings into the side of a duffel bag filled with towels. Second, we tested the Under the String Drill, in which the golfer tries to hit balls under a string three feet off the ground and six feet in front of him. Finally, we tested the Miss the Grip Drill, during which the golfer is asked to hit shots using his normal swing, swinging over an obstacle—a rubber grip, for example—placed eight inches behind the ball.

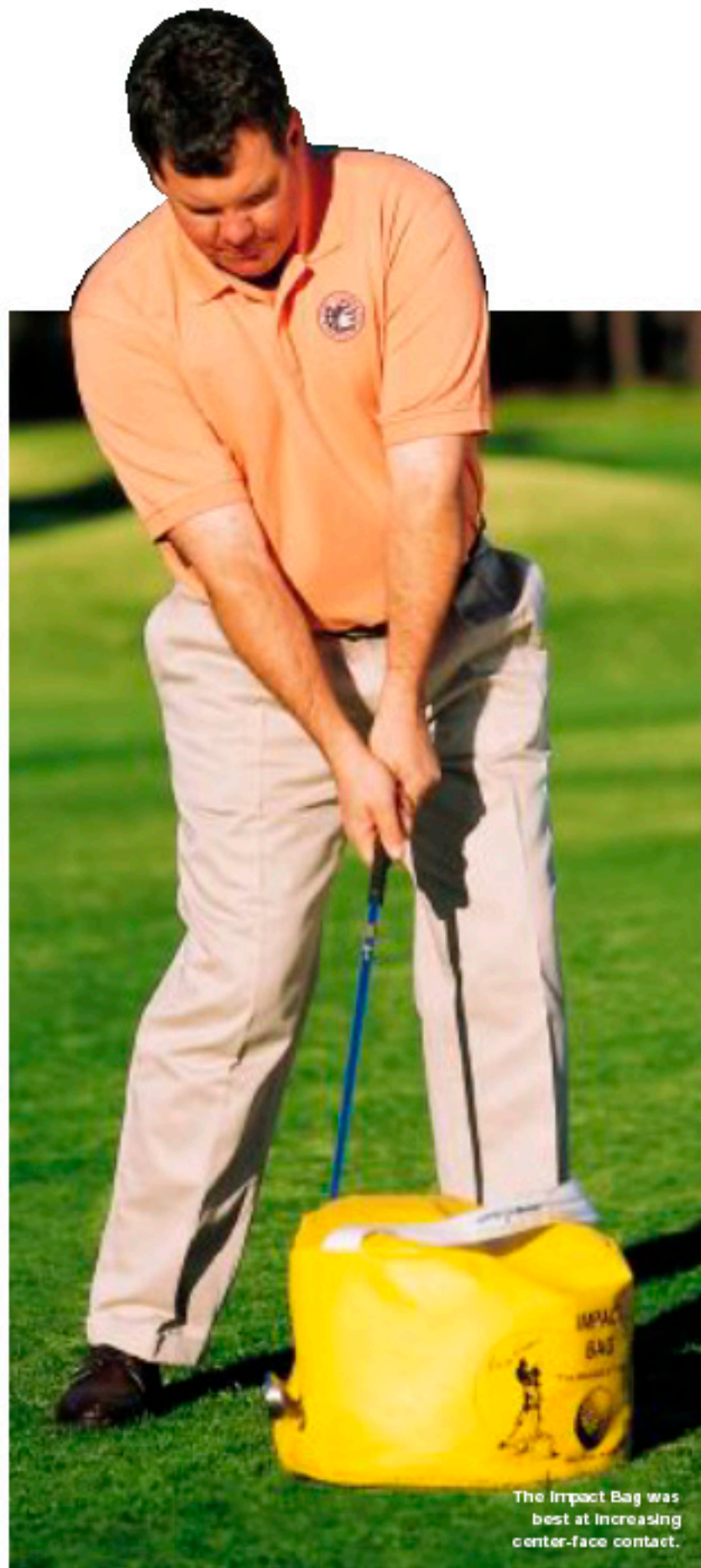
**THE TEST**

Dr. Bob Christina, who supervises our tests at the Pinehurst Company Golf Institute, randomly assigned the drills to three groups balanced for age, gender, handicap, and golf experience. Using a 6-iron, participants took practice swings, hit three warm-up shots, then hit five shots in a pretest, while impact data was recorded.

Each participant then completed the following cycle six times: one practice swing using the assigned drill, one shot using the drill, a second shot without the drill. After a break, each participant completed six more cycles, took a break, then did six final cycles.

Finally, a post-test identical in method to the pretest was conducted.

PHOTOGRAPH BY SETH ORTHWOOD



The Impact Bag was best at increasing center-face contact.

**THE RESULTS**

The overall winner—by a whisker—was the Impact Bag Drill. Participants using this drill gained 16.1 yards in distance, had 64 percent more center-face shots, increased clubhead speed by 1.8 mph, and angled the clubshaft 1.2 degrees farther forward (which helps to create the necessary downward blow). All of these changes were statistically significant except the increase in clubhead speed.

A close second was the Under the String Drill, which scored a distance increase of 14.2 yards, created 17 percent more center-face hits, increased clubhead speed by 2.6 mph, and angled the clubshaft 1.5 degrees farther forward. All of these changes were statistically significant except the increase in center-face hits. None of the results from the Miss the Grip Drill was statistically significant.

**IN MY OPINION**

There are two ways to hit the ball farther—add clubhead speed or make contact closer to the center of the face. The Under the String Drill did the best job of increasing clubhead speed. The Impact Bag helped groove center-face contact, which increased ball speed and, therefore, distance.

And these improvements came without an increase in off-line shots. %

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