

Photo A.
Head is up and face is clearly visible under the cap bill — a good posture for hitting a golf ball.

Photo C.
Head is down and face is hidden by cap bill — a poor posture for hitting a golf ball.

Photo B.
Back of head stays in line with the spine angle.

Photo D.
Chin is buried preventing a good shoulder turn.

SPECIAL CLUBFITTINGS: THE CLEAR VIEW ON BIFOCALS

by John Mathieson, Golfsmith research and development team member

Presbyopia (pronounced Prez-bee-OH-pee-ah) is the inability to focus on items that are near. It is caused by the gradual loss of flexibility within the eye and it usually begins around the age of 40. Currently there are no guidelines for delaying the onset or preventing it from occurring. Presbyopia is simply a natural part of getting older and ultimately it affects everyone.

The treatment for Presbyopia for people who already wear corrective lenses is to have glasses made with two prescriptions on one lens, in other words bifocals. A bifocal lens can be made with two distinct prescriptions or with a progressive or “no-line” lens.

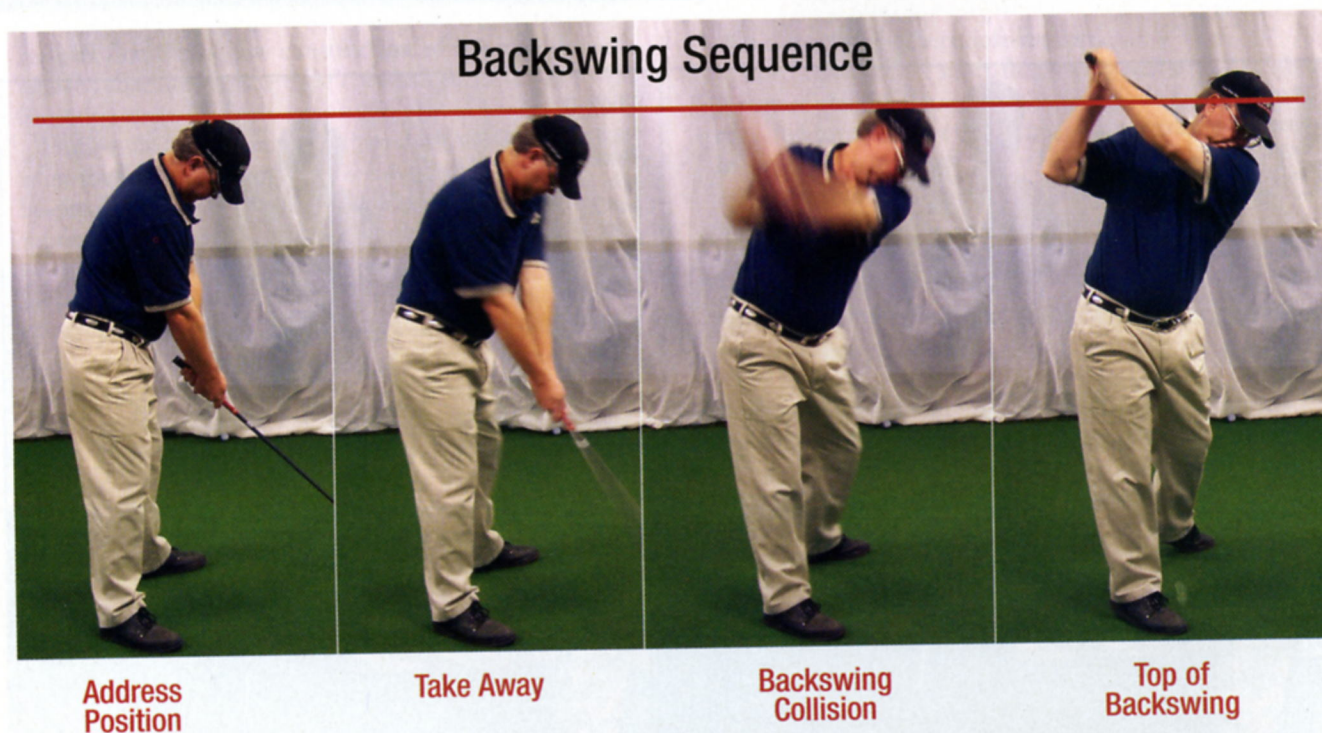
While the bifocals are great for providing better vision, they are extremely detrimental to you or your customer’s golf game. Years ago my father, who used to play with his bifocals, would hit a bad shot and disclaim that the “darn ball moved!” As a retired military officer his language was a little more colorful. At the time, I simply felt that he was using his glasses as an

excuse for his poor shots. In the past few years, as my own eyesight has deteriorated, I have begun to wear bifocals. He was right — the ball does move! My first pair of bifocals had a .5 correction. My Ophthalmologist called the first correction “training wheels” because the correction was slight. Since the lenses were the progressive style, and the correction was so slight, I did not feel that the lenses were detrimental to my golf game. What a mistake! My ball striking suffered. Today I use a pair of single vision lenses and my ball striking has recovered.

With the Vector Launch Monitor Golfsmith’s R&D team members can now measure and analyze golf shots with remarkable precision. Because many players over the age of 40 have bifocals, we ran a study to determine if bifocals were detrimental to the average golfer, and if so, how was the ball striking affected.

To conduct the test we had to replicate the effects of bifocal glasses. For this we selected a pair of reading glass with a .75 correction and very narrow frames. We

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had 22 participants whose handicaps ranged from 0 to above 25. Both men and women participated in our test, and we used the same driver for all players. Players who did not normally need corrective lenses were selected in order to study the effects not being able to see the ball clearly immediately had on their posture, swings and the resulting shots.

The players were allowed to loosen up before testing began. The player would hit the driver without the glasses. As the player was hitting we observed the player's posture. After five to seven hits on the Vector the player was given the glasses and asked to take some more test swings. All of the flight data was captured and recorded on the Vector. Again we observed the player's posture and noted any changes. After just a few players, it was becoming apparent the glasses were causing a significant change in

the player's posture.

In photo "A" (page I-1) the player's face is clearly visible beneath the bill of his cap. This posture will allow the player the freedom to turn the shoulders fully without any restrictions from the player's chin. Photo "B" (page I-1) shows the same posture from down the target line. Note how the upper back and the head are one continuous line.

In photo "C" (page I-1) it is evident that the player's posture is incorrect — you can no longer see the player's face. This is what club-makers need to look for when evaluating players with bifocals. In this instance, the player has lowered the head in order to see over the lower portion of the lens. Inevitably all golfers with bifocals will end up in this position. We naturally want to see all things clearly, and with bifocal lenses the lower portion of the lens, which is designed for seeing

items close up, will cause the ball to be "fuzzy" or out of focus. In an effort to correct this, players will lower their head to bring the ball into focus. Photo "D" (page I-1) shows the same problem with the player's posture from down the target line.

The natural progression of lowering the head into their chest at the beginning of a golf swing restricts the ability to rotate the shoulders. The more the head is lowered, the greater the restriction. Such restriction can have a tremendous impact on the player's distance and the consistency of contact.

ADDRESS POSITION

The player's head position is lowered, and the chin almost resting on the chest. The player is making an effort to see the ball clearly.

TAKE AWAY

With the club only a few inches from the ball the chin and the

continued on page I-7

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...continued from I-2

shoulder are already on a collision course.

BACKSWING COLLISION

As the shoulder and the chin collide, the player's head begins to rotate (notice the reflection from the player's glasses). For some players, the shoulders will stop turning at this point limiting the potential clubhead speed.

TOP OF BACKSWING

Here the player has made an extraordinary effort to complete the backswing. In trying to get the shoulders to turn fully, the collision between the chin and the shoulder has caused the player to pick or lift his head upwards. This can lead to a much higher number of poorly struck shots. In discussing this photo sequence with instructors of

Golfsmith's Harvey Penick Golf Academy, the staff indicated that if a player still retains flexibility then the swing would continue to move back with the head rising up. Players who have lost flexibility will no longer continue to swing the club back. The collision between the chin and the shoulders effectively stops the backswing.

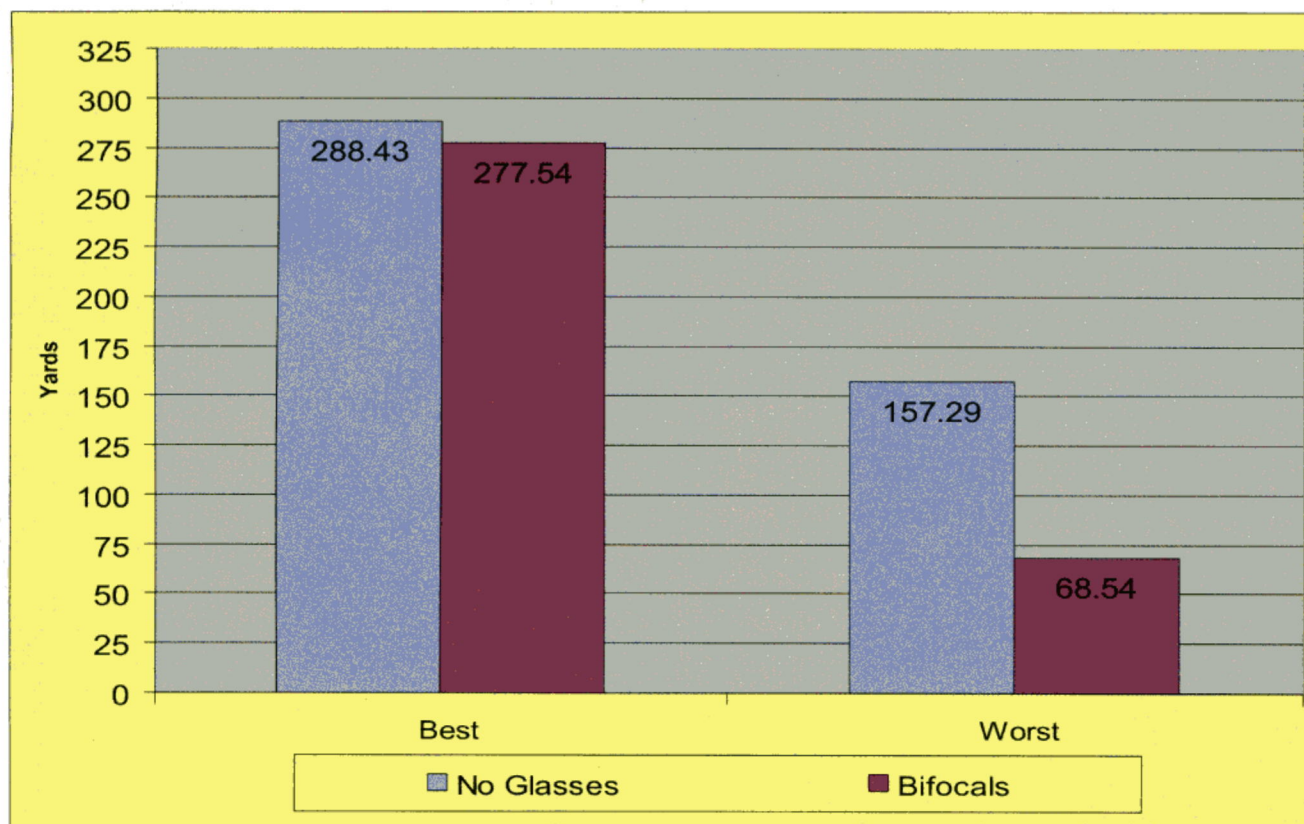
TEST RESULTS

We compiled all of our data and reviewed the shots to see the best and worst with and without glasses. The best shot without the glasses was 288.43 yards. With the glasses the best shot was 277.54 yards. The shot of 277.54 yards is a very good shot by most standards, and is evidence that good shots can be struck with glasses, but not your best shot.

The most significant number in our test was the distance of the worst shot. The worst shot for the players without glasses was 157.29 yards. The worst shot with the glasses was just 68.54 yards. It is this type of poorly struck shot that results in a loss of confidence, and, puts additional stress on a players game.

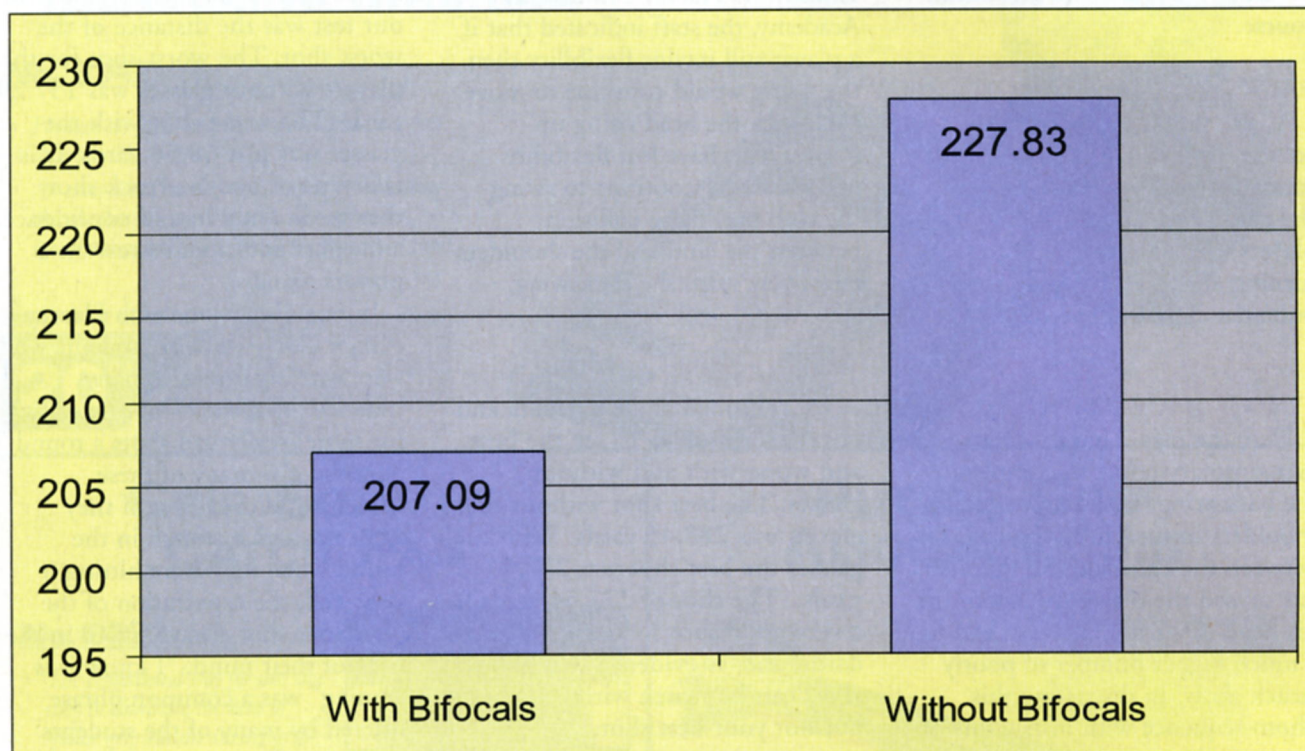
In our discussions with Harvey Penick Golf Academy students who were wearing bifocals, many indicated that they "hit one or two (or more) really bad shots a round." Surprisingly, many of these students indicated that if they went through a stretch in the round when they were hitting it very well, the expectation of the disastrous shot always stayed in the back of their mind. "I know it is coming" was a common phrase uttered by many of the students.

Best & Worst



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Average Driving Distance



A review of the average distance for all players' shots clearly shows the massive loss of distance directly caused by wearing glasses. On average the players lost 20 yards! Remember that these were the same players with the same club. The only difference was the glasses! They forced the players to lower their head in order to see the ball clearly. The loss of distance was felt by more than 80 percent of all players.

Golf is a game of misses. The worse your bad shot, the higher your score. While we all are aware of these sayings, many players may not feel that their bifocal glasses contribute to their poor shots.

Because our sight progressively diminishes over time, our first correction may not be significant enough to create a problem with our swing. This can lead to a false confidence in our ability to hit the ball with bifocals. I know that I

believed I could play with my bifocals. As my prescriptions were changed to compensate for my close-up vision loss my ball striking became worse as I lowered my head into my chest in an effort to see the ball more clearly at address. Yet, I never blamed the glasses. Because evaluating golf swings is a part of the job, clubmakers are sometimes faced with the difficult task of telling a golfer something they don't want to hear, or may not want to accept. Bottom line — golfers can't play their best golf with bifocals.

While we only tested and measured the effects of bifocals on one club, the driver, we might conclude that the bifocals would

have a similar detrimental effects on all golf shots. From the driver to the wedge, and even the putter, the golf swing must have the freedom to rotate the shoulders with minimal tension.

Harvey Penick indicated that a majority of golf shots are ruined before the player ever initiates their backswing. While he was primarily referring to the grip and ball position, players above the age of 40 also need to be concerned with vision. Wearing bifocal glasses increases the number of poor shots during a round. Your fitting, and your customer's satisfaction with your clubfitting, may be compromised if the player continues to wear bifocal glasses on the course.

For more
information
on the

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see pages
32-33 of
this issue