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## Why everybody needs to try more loft -- and that means you!

**New Golf Digest testing shows you may need more loft on your driver than you think**

By Mike Stachura  
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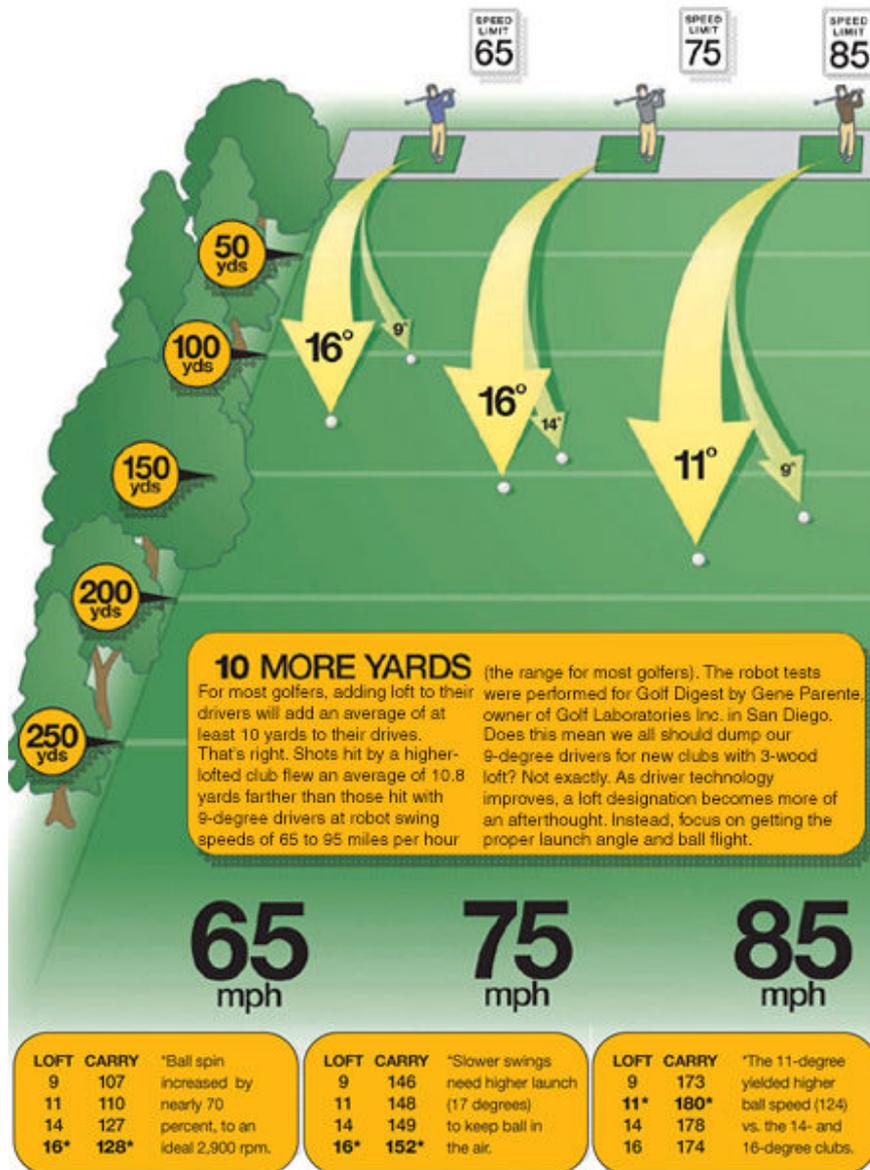
Dick Helmstetter remembers the first time he saw a group of long drivers in training. This was long before portable launch monitors, laser-distance-measuring devices or even reliable swing-speed gauges.

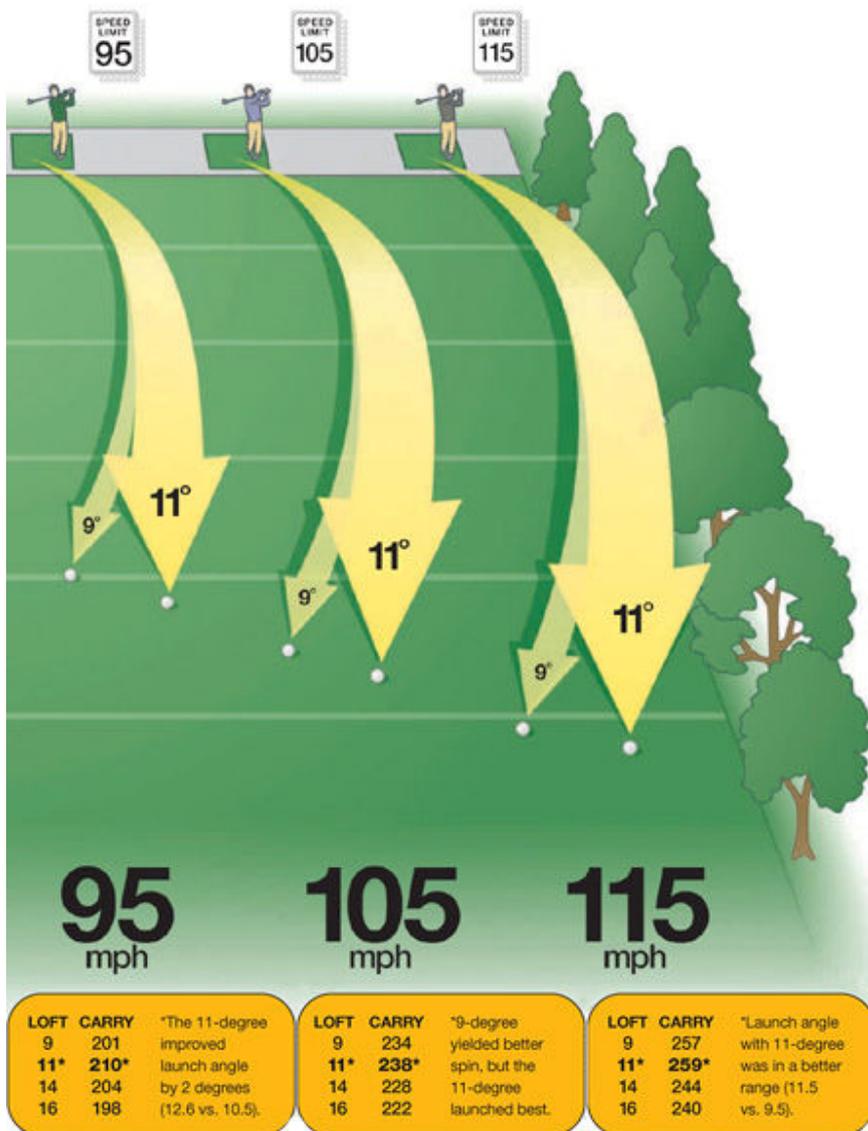
"They were using stopwatches," says Helmstetter, Callaway Golf's senior executive vice president and chief of new products. "They figured 10 seconds of hang time was what they needed to be competitive. They had it figured out back then. They knew that the longer the ball stays in the air, the farther it's going to go. Period."

The lesson of the stopwatches from years ago has been confirmed by recent Golf Digest player and robot testing. Higher is better. The action plan for average golfers is simple: Take the headcover off your No. 1 club right now. If the numeral on the sole is less than 10, and you are not a member of the PGA Tour, try a driver with more loft. It could change your life.

"The single thing that I have found to help people hit the ball better with the driver is to give them higher loft," says Tom Stites, director of product creation for Nike Golf. He's convinced that about 90 percent of average recreational golfers would see better results if they could add 1 or 2 degrees of loft to their drivers. "But golfers really do have a psychological barrier to loft," he adds.

Well, here's an attempt to break through that barrier with some cold, hard numbers. Golf Digest tested various swing speeds using a collection of different lofted drivers (9, 11, 14 and 16 degrees) provided by Tom Wishon of Tom Wishon Golf Technology. Not surprisingly, at the slowest speeds, the 16-degree club performed best, but for the speeds that represent the majority of average golfers (and even at a tour-level 115 miles per hour), the driver that provided the greatest carry distance had a loft of 11 degrees (*see below*).





Conventional wisdom suggests that higher-lofted drivers produce shots that fly far and stop dead where they land, but even when total distance was measured, our tests showed that higher-lofted drivers didn't suffer much. Says Wishon: "The perceived penalty of less roll on higher-loft clubheads isn't as bad as golfers might think."

Just as impressive were the results from a sampling of average players whose carry distance improved by as much as 36 yards by switching to a new driver with more loft ([see "We tried it," below](#)).

These results might seem counterintuitive. It must be true that just as you hit a 9-iron farther than a pitching wedge, an 8-degree driver should go farther than an 11-degree driver. It isn't. The key to maximizing power at any swing speed is to launch the ball on the proper trajectory with the right amount of spin to take advantage of the golf ball's aerodynamic properties. That launch angle is usually 10 to 15 degrees

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(slower swingers can get more distance with a higher launch angle). Ideal spin varies, but generally a spin rate of 2,000 to 3,000 revolutions per minute is desirable, again a little higher with a slower swing speed because the increased spin helps the ball stay in the air.

To achieve the optimum distance-producing trajectory, even tour players have gone to higher lofts. For example, about half the pros recently teeing up TaylorMade drivers on tour used lofts of 9 degrees or higher -- including Hank Kuehne, the new big bomber on tour. Nearly 40 percent of tour players using Callaway drivers play at least a 9-degree driver. About 40 percent of Titleist tour players use drivers with 9.5 degrees of loft or higher. Tiger Woods and Ernie Els each used a driver with 9.5 degrees of loft in 2003.

Average golfers could experience the same kind of benefits, the kind that could mean carrying the lake on No. 10 or reaching the top of the hill on 18. Some research suggests that a launch angle approaching 20 degrees is the best way to maximize distance. Although it's not yet practical to launch a tee shot with low spin at such an angle, the closer you can get to the paradigm of "high-launch, low-spin," the better.

Dr. Tetsuo Yamaguchi, senior director of product development for Srixon and the man who pioneered the concept of high coefficient of restitution (springlike effect) in drivers, believes the benefits of more loft are only beginning to be discovered. "It used to be that the faster-clubhead-speed players favored drivers with 8 degrees of loft," he says. "I could see in the future faster swingers using 14 degrees."

For average players, the key is to change your perspective on what makes for a desirable ball flight. "An average golfer should never be happy with a medium trajectory on the driver, and low trajectory is not an option," says TaylorMade's Benoit Vincent, vice president of research and development. "Pick a driver that gives you as high a trajectory as you can get without sacrificing accuracy. When you feel you are uncomfortably high, take the loft one step down to see if you are still as consistently long nine out of 10 times. If in doubt, take more loft rather than less."

Even older pros are learning the benefits of more loft. Lanny Wadkins, who has played high-level golf for more than 30 years, has always been known as the quintessential low-ball hitter, and he played drivers with as little loft as possible during his glory days as a pro. He's a changed man.

"The launch monitor has taught us all to try to launch it higher with less spin," says Wadkins, who says more loft also helps him work the ball. "I started thinking about it after watching a long-drive exhibition. I thought they were popping the ball up. But then I saw those pop-ups were going 330, 340."

So what's the loft on Lanny's new driver? 9 degrees? 9.5? Try 10. "I'm enjoying the new technology," he says. For you to do the same, the short answer is go higher.



**Is the number on the sole of your driver the**

### actual loft? Well ...

A decade ago Golf Digest made a plea for universal equipment standards ("Calling for Standard Club Specs," December 1992). The problem then was that one manufacturer's 9-degree driver might be different from another company's. We wanted to see if anything had changed, especially because typical golfers reading this package might start looking at the soles of their drivers with a bit more scrutiny.

If equipment manufacturers sold drivers with lofts higher than printed and caused amateurs to assume they had the skill to hit lower-lofted drivers, we would have a huge scandal or at least a dirty little secret to report. For all of you budding conspiracy theorists, that's not the case. We asked veteran clubfitting expert Rick DeMane of DeMane Golf Inc. in Greenwich, Conn., to test several of the most popular drivers on the market. He compared all of the real lofts to those stated on the golf clubs, and the results were never outside a range of significant tolerance.

DeMane found that the majority of drivers that he tested were within a degree of the stated loft. With the face angle held square, most of the drivers measured had a slightly lower loft than indicated. However, in the natural set-up position, there was no consistent pattern. For example, the Cleveland drivers measured fractionally lower, while the Adams Golf drivers were slightly higher.

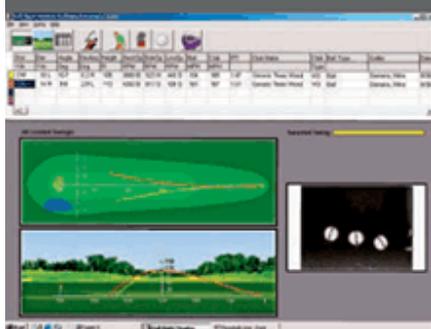
These discrepancies may be more about how different equipment manufacturers measure loft, but the companies we spoke with were unwilling to reveal their methods or tolerances, for competitive reasons. However, some are hoping that printed loft becomes less and less important.

"I think there will come a day when people will purchase drivers by ball performance and not the hype or numbers written on the club," says Nike Golf's Tom Stites. "Driver true-loft performance is a synergy of factors. Only the ball flight can tell you the true dynamic loft -- and that is a mixed function of measured loft, face angle, center of gravity, moment of inertia top to bottom and face roll."

-- Isaac Gruber

## WE TRIED IT LOFT TEST

To show you how loft affects regular players' tee shots, we enlisted the help of Swing Dynamics, a Carlsbad, Calif., company that makes portable launch monitors. Technician Mark DiMare set up a launch monitor on the practice tee at the Cranwell Resort, Spa & Golf Club in Lenox, Mass.—a Golf Digest Schools site.



We tested players with their own drivers and Callaway Great Big Bertha II drivers of different lofts. We measured their good hits and got some fascinating results.

Swing Dynamics' monitor tracks ball rotation (we drew lines on Titleist NXT Distance balls) and change of location to calculate clubhead speed, ball speed, launch angle and spin rate. It shows the data on a

standard laptop screen (above). According to DiMare, an ideal tee shot has a launch angle of 10 to 15 degrees and spins up to 3,000 revolutions per minute. Just how far the shot will carry depends on the clubhead speed a player generates. Across the board, our testers got more carry distance by switching to a higher-lofted club—and in some cases, a lot more. We've summarized their experiences and average distances in the boxes on the right. **Matthew Rudy**



### SHERYL TRABERT

Shrewsbury, Mass.

**Handicap:** 19

**Swing speed:** 67 mph

**I tried it:** I didn't pick my own driver because of its loft—it

was just the loft that was available. So I was excited to try something different. After hitting all these clubs, I'd definitely abandon the 10-degree driver and try something with more loft. I just assumed that a lower-lofted club would give you more distance.

**What we think:** Sheryl undoubtedly benefited from more loft. Shots she hit with the 16-degree test club were consistently longer. She's also a fairly strong swinger who would benefit from a men's R-flex shaft instead of the women's flex she uses now.

DRIVER	LAUNCH	SPIN	CARRY
Callaway VFT			
10° Ladies flex	16.5	3767	130
9° R-flex	11.5	3406	147
11° R-flex	12.8	2720	139
16° R-flex	17.4	4697	154



### Dick Piretti

Lenox, Mass.

**Handicap:** 6

**Swing speed:** 97 mph

**I tried it:** I had seen tests like this before, and I was eager to see

how it related to me. I didn't notice too much change in my ball flight with more loft, but I could really see it where my shots landed. I always thought I hit the ball too high, so I went to an 8-degree driver. I'll have to find a 9-degree driver I'm comfortable with.

**What we think:** Dick has a great swing—and a good launch angle and spin rate with his Callaway Biggest Big Bertha. By adding 1 degree of loft, he increased his launch angle and slightly decreased his backspin, which translated into a whopping 36 more yards of carry.

DRIVER	LAUNCH	SPIN	CARRY
Callaway BBB			
8° S-flex	14.4	3103	206
9° R-flex	13.7	4299	202
9° S-flex	14.7	2947	242
11° S-flex	14.7	4450	212



**Bob Tripp**  
Pittsfield, Mass.  
**Handicap:** 22  
**Swing speed:** 75 mph

**I tried it:** You hear about launch angle, clubhead speed and

spin rate on the golf telecasts all the time, but they never explain what it all means. This showed me what they're talking about. I built my own driver from components, but I bought it more for the hot face. I'm going to check into more loft now.

**What we think:** Bob has a nice swing, but he doesn't have enough clubhead speed to launch a 10-degree club high enough. He got a little bit more carry from the 16-degree test club, and a better spin rate, and the shorter shaft gave him more accuracy.

DRIVER	LAUNCH	SPIN	CARRY
Killer Bee			
10° R-flex	17.1	2191	160
9° R-flex	17.6	3186	155
11° R-flex	14.9	1885	155
16° R-flex	18.9	2386	162



**Peter Gordon**  
Chestnut Hill, Mass.  
**Handicap:** 27  
**Swing speed:** 84 mph

**I tried it:** Other than the clubs being numbered the same, the

game is totally different than when I played before. This new equipment is unbelievable. I got the clubs I use now from a friend, but I'm going to go out and buy an 11-degree driver.

**What we think:** Peter just came back to the game after a long layoff, so he was in a position to benefit from the new technology. The 11- and 16-degree test clubs gave him slightly more carry and boosted his backspin—which helps get the ball in the air. Shots with his old club flew at a lower trajectory and knuckled a little because of the lack of spin.

DRIVER	LAUNCH	SPIN	CARRY
Mizuno T-Zoid			
10.5° R-flex	16.7	1701	208
9° R-flex	12	3933	215
11° R-flex	14.4	3322	217
16° R-flex	15.3	3029	214