

ClubTest 2012 29 NEW IRONS TESTED & RATED

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TOUR TEMPO SECRETS

REV UP YOUR
BACKSWING FOR
20 MORE YARDS



TEMPO KING
Ernie Els
swings faster
than you think

LEARN THE **NEW** 3-TO-1 SWING-SPEED
RATIO FOR PERFECT, POWERFUL TEMPO



Special Masters Preview

- JOHNNY MILLER'S GUIDE TO AUGUSTA
- ARNIE, FUZZY & FALDO ON THEIR GREATEST WINS
- THE DARK PAST OF A MASTERS ROOKIE

GOLF.COM

APRIL 2012



THE **FAST** WAY TO MORE POWER



Ernie Els's swing looks smooth, but only because it's fast!

ADDRESS TO TOP
0.80 secs

TOP TO IMPACT
0.26 secs

TOTAL TIME
1.06 secs

3 PARTS BACKSWING

1 PART DOWNSWING

A NEW METHOD FOR MEASURING SWING TEMPO PROVES THAT YOUR SWING IS TOO SLOW, AND THAT THE SECRET TO MORE DISTANCE IS SIMPLY A MATTER OF STEPPING ON THE GAS

By John Novosel, with John Garrity
Photography by Angus Murray

With the Masters only weeks away, it's time to dust off your clubs, head to the range and get ready for the new season. Like most golfers, you'll probably begin by reviewing the tried-and-true basics: grip, ball position, alignment, posture, etc. While perfecting these fundamentals can go a long way toward helping you improve your technique, limiting your focus to these areas will take you only so far.

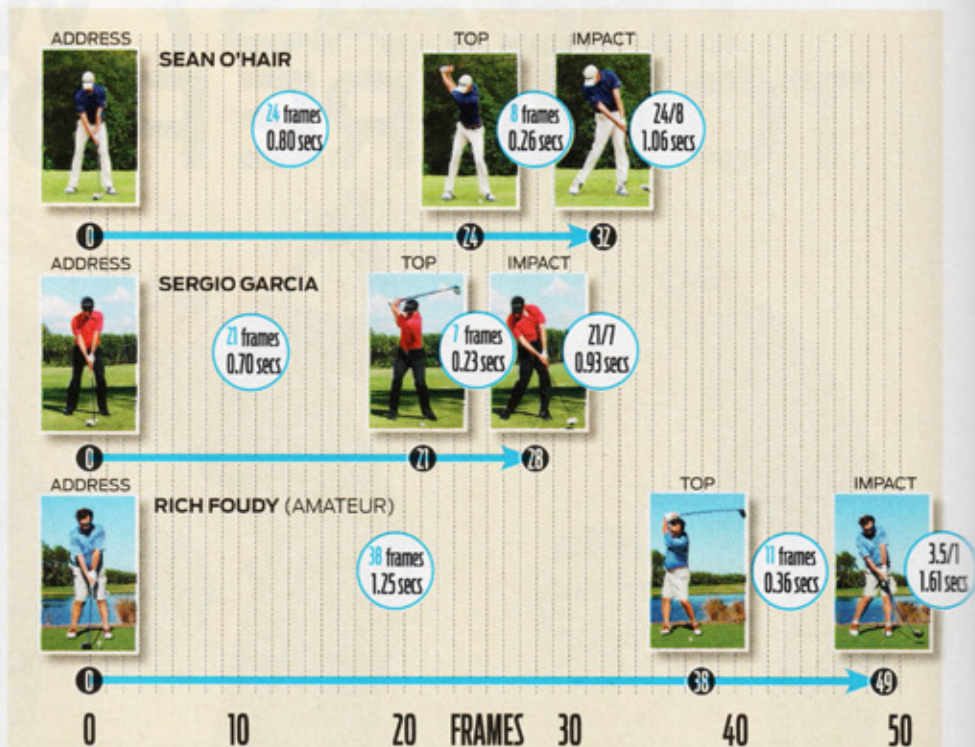
You're leaving out the most important fundamental of all: Tempo.

Tempo, the swing rhythm that all top golfers possess, is rarely taught or practiced. When it is, it's usually approached as a *refinement*—something to develop only after you've mastered the key mechanics. This is a crippling misconception because, based on our research, poor tempo is the cause of most mid- and high-handicap amateur swing errors, while good tempo gives you the speed and yards your game has been missing. The trick is to stop thinking smooth and start swinging fast.

THE TRUTH ABOUT SWING TEMPO

We changed tempo from swing thought to science more than a decade ago—yet admittedly by accident. While editing videotape of LPGA Tour player Jan Stephenson for an infomercial, I—for no particular reason—began counting the frames in her swing. Broadcast video is shot at 30 frames per second (each frame occupies the screen for 0.033 seconds), and Jan took 27 frames (0.9 secs.) to get from address to the top of her swing, and nine frames (0.3 secs.) to get back to the ball—a 3-to-1 (27/9) ratio. Later, I measured an 8-iron shot by Tiger Woods at the 1997 Masters. Just as Jan did with her driver, Tiger swung his 8-iron at a 3-to-1 (27/9) ratio in just 1.2 seconds.

Sensing a trend, I began counting every Tour swing we could find. We discarded the idea that 1.2 seconds was a standard swing speed (Nick Price takes less than a second to hit the ball). However, a very clear pattern began to emerge: Nearly every top golfer timed out at the same 3-to-1 ratio, what we call Tour Tempo.



Like most Tour players, Sean O'Hair and Sergio Garcia swing with the ideal 3-to-1 (backswing-to-downswing) tempo ratio, even though Garcia is faster. Our sample amateur, like most weekend players, is slower on both sides of the transition.

PROOF THAT SMOOTH SWINGS ARE FAST SWINGS

Most golfers consider Ernie Els [top] the smoothest swinger on Tour. But the Big Easy's swing is only one frame (.033 secs.) slower from start to impact than Jhonattan Vegas's, and Vegas [bottom] is one of the hardest swingers around. Els is 15 years older and 10 mph slower than Vegas, but he's faster than you think.





RICH FOU DY (9-HDCP)

OUR AMATEUR'S TAKE ON TEMPO

"When I'm playing well I feel like my tempo is slower. I

swing powerfully but it doesn't feel fast. When I'm not playing well I definitely feel that I'm too fast all around. I've addressed tempo with my teacher, since it's a big thing for me. It's actually easier for me to get away with bad tempo with the driver than it is chipping or putting, so I work on tempo around the green. I count to two slowly in my backswing and on the count of two I start the downswing. It works well for me.

I definitely think you can improve your tempo. I used to be a 24 handicap and now I'm a nine, and better tempo has a lot to do with my improvement. Sometimes it feels like you're going against your natural tendency, but it can be done."

—Rich Foudy plays out of Old Palm G.C. in Palm Beach Gardens, Fla.

Our conclusions were substantiated by independent researchers at the Yale University Department of Applied Physics in 2006 (*Towards a Biomechanical Understanding of Tempo in the Golf Swing*, by Drs. Robert Grober and Jacek Cholewicki), but here's all you really need to know:

TEMPO TRUTH NO. 1

GOOD SWINGS ARE FAST SWINGS

Ernie Els and Fred Couples may look like they're swinging easy, but all Tour players swing fast [see sequences, below]. The elapsed time from takeaway to the top is one second or less, and nearly all Tour players hit the ball in 1.2 seconds or less.

TEMPO TRUTH NO. 2

GOOD DOWNSWINGS ARE THREE TIMES FASTER THAN GOOD BACKSWINGS

Tour players have three parts backswing to one part downswing. In other words, if a pro takes 21 frames to complete his backswing, his downswing will take 7 frames, give or take a frame. (In Tour Tempo lingo, he's a "21/7"). While Tour swings range from slow-ish (Jay Haas, 30/10) to average (Kyle Stanley, 24/8) to freaky-fast (Rickie Fowler, 18/6), they all exhibit the same 3-to-1 rhythm. Or at least they try to. Being human, pros occasionally mistime a swing, particularly under pressure. Phil Mickelson's disastrous drive into the barranca on the final playoff hole at the 2001 Buick Invitational was the result of a 29/8 swing. Not to brag, but we can guess the outcome of a shot simply by counting a player's frames: 21/7 splits the fairway; 28/6 breaks a windshield.

TEMPO TRUTH NO. 3

POOR GOLFERS SWING TOO SLOW

Our equally big discovery was that most amateurs, obsessed with mechanics, sacrifice distance and accuracy by swinging too slowly, especially during their backswings. If you're a typical weekend golfer, you probably swing to a tempo of 3.8-to-1, 4-to-1, or even higher. It's your pokey tempo, not your less-than-Hogan-esque swing plane, that has you hitting that weak hook or slice.



FIND YOUR TEMPO

The easiest way to time your swing is with our Tour Tempo frame counter app [above]. Shoot your swing with an iPhone or iPad, enter playback mode and tap on the three tempo checkpoints. The counter instantly presents a readout of your tempo ratio. Visit the iTunes store.

"Fast swingers look smooth because they coordinate the movement of fast muscles (hands and arms) with slow muscles (hips and legs)." —Top 100 Teacher Rick McCord



DON'T DO THIS

Avoid the following tempo misconceptions to help bring your motion up to Tour Tempo speed.

MYTH 1**GO LOW AND SLOW**

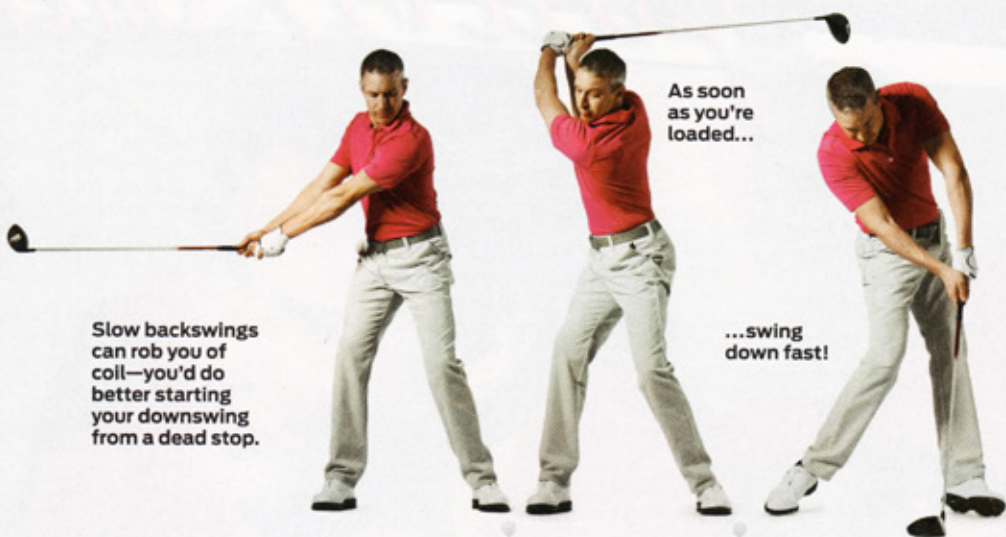
Bobby Jones said, "Nobody ever swung a golf club too slowly." But a lazy backswing, by Tour standards, takes only 27 frames (0.9 secs.). Most pros take the club back in only 24 frames (0.8 secs.). Jones himself swung to a 27/9 rhythm. And just so you know, the savant, Moe Norman, was a consistently fast 18/6.

MYTH 2**PAUSE AT THE TOP**

When watching your swing on video there's a point where the clubhead appears to be frozen, as in a still photo. Although you may think there's a pause, the club is actually changing direction—something you actively make happen. Your transition should be as reflexive and uninhibited as a recoiling spring.

MYTH 3**USE "YOUR" TEMPO**

Some instructors suggest that if you walk and talk slowly, you should swing slowly, or, conversely, if you move and speak quickly, you should swing quickly. But Bernhard Langer, a notoriously slow player, swings at a surprisingly brisk 0.93 seconds (21/7). Meanwhile, Kenny Perry, who races muscle cars for a hobby, has one of pro golf's slowest swings at 1.3 seconds (31/8). Forget slow or fast—just try to hit the 3-to-1 ratio.



Most amateurs' tempo ratios are too high because their backswings are too slow, too long or both. You don't need to rush, but quickening your move to the top and then immediately swinging down to the ball at the very moment you feel loaded will get your tempo numbers where they need to be.

BETTER TEMPO EQUALS BETTER RESULTS

Performing the steps on the previous page will help you play better golf. My sons (John Jr. is pictured above) and I have been timing swings at our schools for a decade now, and typically we find that even single-digit handicappers swing more slowly than the slowest Tour pros, with high-handicap golfers swinging at backswing-to-downswing ratios of 4-to-1 or more. But when we reprogram our amateurs by having them hit balls to our 3-to-1 tempo-training tones, we invariably see an **immediate increase in clubhead speed resulting in 10 to 15 yards of additional carry with a 5-iron** (and more than 20 yards with a driver). And since good timing delivers a squarer clubface on a straighter path, they hit the ball straighter, too.

FINAL THOUGHTS

As you practice the 3-to-1 ratio, keep in mind that your tempo should be the same for all standard shots with every club in your bag. In other words, if you're 27/9 with your 9-iron, you should be 27/9 with your driver, too.

The situation changes the closer you get to the green. We've timed Tour pros hitting chips, greenside bunker shots and putts, and guess what? They all employ a 2-to-1 ratio—the number of frames it takes a pro to complete his backstroke when putting is twice the number of frames it takes him to contact the ball on his forward-stroke. Most amateurs chip, pitch and blast to a too-fast tempo. It's all covered in our new book, *Tour Tempo 2: The Short Game and Beyond* (visit www.amazon.com).



Short-game shots require a 2-to-1 ratio: Your forward-stroke should be twice as fast as your backstroke.