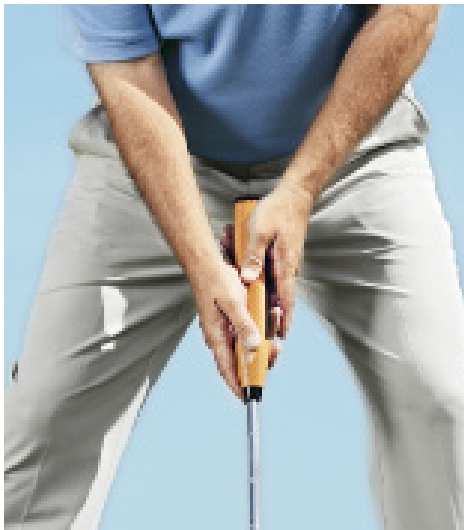


2

How to Build the Perfect Stance

Address is the most overlooked part of putting. Even the players who work at it do so without thinking about the three most critical areas: stance width, grip size and a new measurement called the Angle of Symmetry. These are not simple basics—they're the secrets to consistently holing putts.



The Balance Expert David Wright

GOLF Magazine Top 100 Teacher, Wright Balance Golf Schools, Mission Viejo, Calif.

My research on stance width and grip size proves you can't address a putt in balance without nailing these two setup elements. I'll show you how to get them right with a unique whole-body measuring technique that's changing the way athletes approach any contact sport.

ALTHOUGH I'VE BEEN teaching golf for close to 30 years, I've dedicated a lot of my time to studying the psychology of learning and how the mind and body work together to perform motor skills. These interests led me to a three-year research project in Dr. Frank Jobe's Biomechanics Lab at Centinela Hospital in Los Angeles in 2004. During this time I studied the way golfers typically distribute weight across their feet, and how their ability to balance—or lack thereof—affected their full swings and putting strokes. We analyzed hundreds of golfers and collected massive amounts of data in search of a balance silver bullet. In the end, we found three.

The most significant of these discoveries is what I call the Angle of Symmetry, an angle that your body tends to create over and over (in your back, knees, arms, etc.) when you execute a motor skill in perfect balance. Everyone has an Angle of Symmetry, and the more you incorporate it in your setup and stroke the better your results will be—as in “off-the-charts” better. As I continued to research the Angle of Symmetry, I learned that repeating it successfully—the key to tapping its power—was dependent on grip size and stance width, the other two balance silver bullets (and two parts of your setup that I'm sure you've never thought twice about). It launched a whole new subset of studies designed to accurately determine these measurements on a golfer-by-golfer basis. The results led to the most personalized custom-fitting program the golf world has seen (www.gripsize.com).

5 Things I'll Teach You In This Chapter

1

The importance of stance width and how to find one that's right for you.

2

Why grip size is critical, and how to fit your flatstick to match your body.

3

How to find your Angle of Symmetry (it's easier than you think).

4

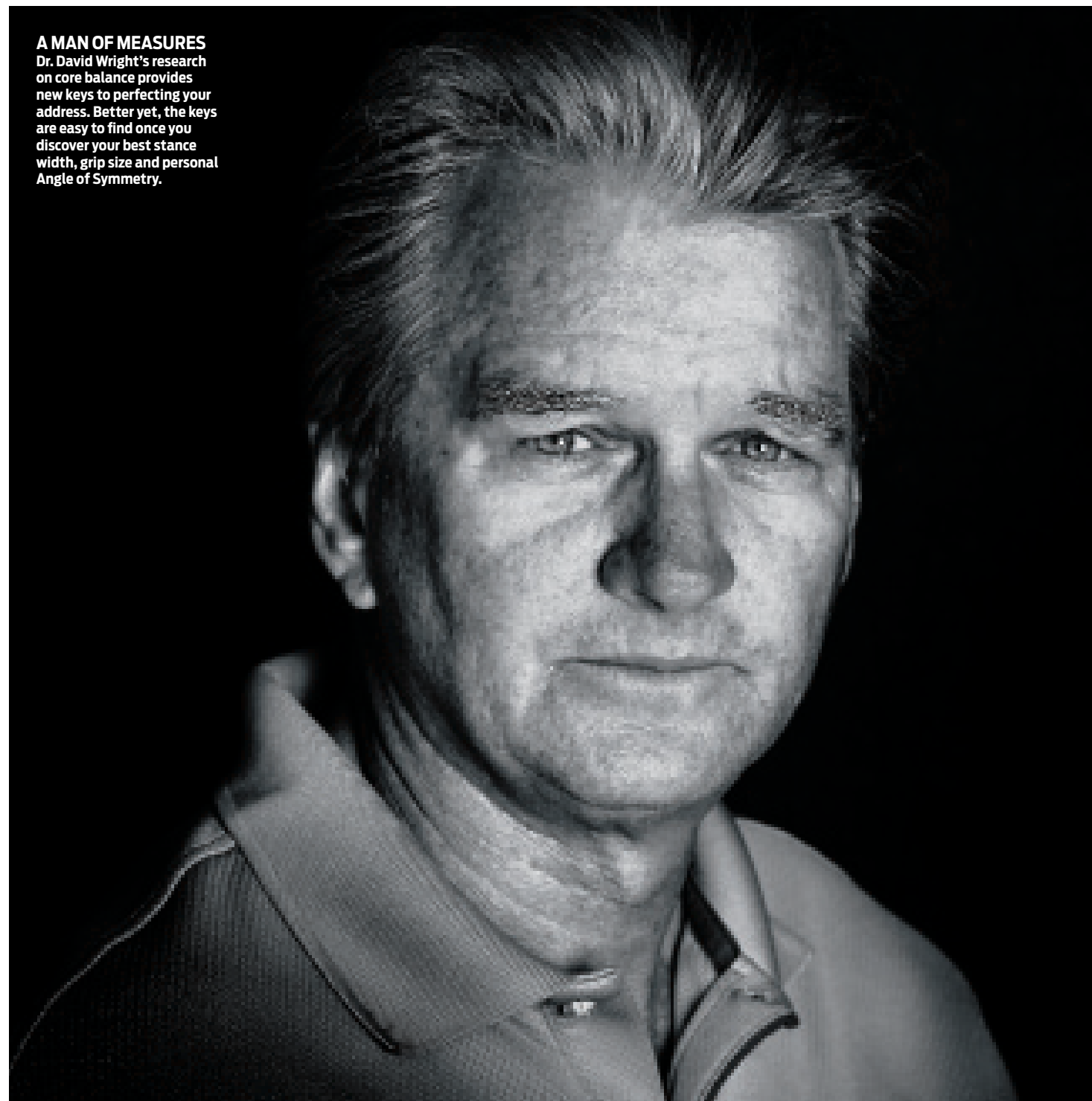
How to build your Angle of Symmetry into your stance for better balance and putt control.

5

How the right stance width, grip size and the Angle of Symmetry give you a better view of your line.

A MAN OF MEASURES

Dr. David Wright's research on core balance provides new keys to perfecting your address. Better yet, the keys are easy to find once you discover your best stance width, grip size and personal Angle of Symmetry.



ALL ABOUT ME

Name:

David F. Wright, Ph.D.

Teaching since: 1982

Where you can find me: Wright Balance Golf Schools, Arroyo Trabuco G.C., Mission Viejo, Calif

Where I've played:

Southern California mini-tours (1980s)

Where I've taught:

Pelican Hill G.C. (Newport Coast, Calif.)

Who I've instructed:

USC men's and women's golf teams (1999-2008); Kevin Stadler; Ramon Brobio

Awards I've won:So. Calif. PGA Teacher of the Year (1998); *GOLF Magazine's* Top 100 Teachers (2005-current); *GOLF Magazine's* Top 25 Golf Schools**My best contribution to the game:**

Discovery of individual biomechanics of balance

For more instruction:golf.com/
bestputtingbook
gripsize.com
wrightbalance.com

Dr. Wright's research applies to all contact sports. Former MLB All-Star Reggie Smith teaches stance width and grip size at his elite batting clinics.

“We’ve developed a series of mathematical formulas to help you find your perfect stance width and grip size.”

ties mentioned above, I found that balance can also be compromised by standing at address with your feet too far apart or too close together, or playing with grips that are either too small or too big for your hands. When these setup elements are off, your whole system falls out of whack. Luckily, my team has developed a series of mathematical formulas to help you find your perfect stance width and grip size so you can solve core imbalance problems—and the negative effects they have on your setup and stroke—for good. Before we begin, however, you should know a few things:

1) YOUR STANCE WIDTH IS DETERMINED BY YOUR OVERALL BODY MASS, and there's only one stance that will set you in balance when you putt.

2) YOUR PERFECT GRIP SIZE IS BASED ON MEASUREMENTS OF BOTH HANDS. Most of us have one hand that's slightly larger than the other so your grips should be sized to accommodate each.

Now for the real kicker: When you set up to putt with your correct stance width using a grip that fits both of your hands, you not only achieve better core balance, you also create a very specific angle in several key parts of your address. This Angle of Symmetry is very specific to you—it's as much a part of your DNA as your eye color or the freckles on your nose. I call it the Angle of Symmetry because it pulls the whole system together by giving you balance, an accurate perspective of your line and a weight distribution that allows you to swing your putter smoothly and on line.

Your Angle of Symmetry repeats itself twelve times in your address position when your stance width and grip size are accurate [see page 35]. Change one of these angles and your ability to swing the putter on your intended path and see the line accurately are compromised. Everything must work in tandem. When you get them right, however, you'll finally learn what great putters have always known—putting is *easy*.

TO UNDERSTAND MY philosophy of putting, you have to understand that your stomach muscles (your “core”) represent your body's center of gravity—they're ground zero for attaining balance and control in any motor action you execute. Problems arise when your core becomes imbalanced, a naturally occurring

phenomenon in approximately 98 percent of the population. Core imbalance results from tension and, like the term suggests, forces you to favor one side of your body over the other. Sitting in a desk chair all day, working at a computer, driving in traffic and a variety of other activities contribute to the development of this problem. Even if you're a regular at your local gym, tension is always working against you.

When you don't have your center of gravity properly balanced at address (i.e., you have tension) your core muscles pull your hips either to the left or right, which affects both the weight dispersion in your feet and your ability to read the line of the putt accurately. In addition, if your hips are turned a bit open or closed at address, it's very likely you'll swing the putter along the same line, regardless of where you intend to start the ball. You're set up to fail even before you put your putter in motion.

I've spent a lot of time researching core imbalance, especially as it relates to your full swing and putting stroke. In addition to the daily tension-causing activi-

WATCH & LEARN



When you see this icon go to golf.com/bestputtingbook for a free video lesson with balance expert Dr. David F. Wright.

POSTURE PERFECT
When your posture is correct—a state that includes a balanced core and the creation of the Angle of Symmetry in key parts of your body at address—holing putts becomes easy.



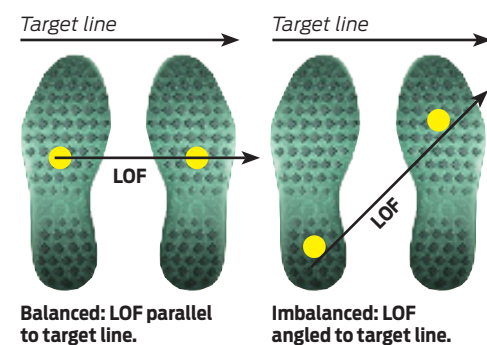
THE IMPORTANCE OF PERFECT STANCE WIDTH

EVERY GOLFER, and every type of athlete for that matter (I instruct professional hockey, baseball and tennis players using the same research), has a correct, mathematically determined progression of stance widths that allows them to be perfectly in balance at address. This means that your feet are equally balanced on the ground, your arms are hanging freely and your eyes are in a neutral position to see your line of attack. When you take your address position with the wrong stance width, your body assumes an out-of-balance position that creates tension (tight muscles in your body's core). This leads to more flex in your right or left knee and a right or left rotation of your hips, depending on your body type.

This is all very bad stuff, but what's even worse is that an imbalanced address position makes it almost impossible to swing your putter in the direction you want—pretty alarming since we're talking about a very small movement made at a fairly slow pace. To understand this phenomenon, it's important that you become familiar with the terms Center Of Force (COF) and Line Of Force (LOF).

CENTER OF FORCE (COF): The point in each foot where your weight is centered.

LINE OF FORCE (LOF): A line connecting the COF in each foot. For most sports, the LOF should point in the same direction as the target you're hitting toward.



ONE FOR ALL
There's only one stance width that allows you to set up in balance.

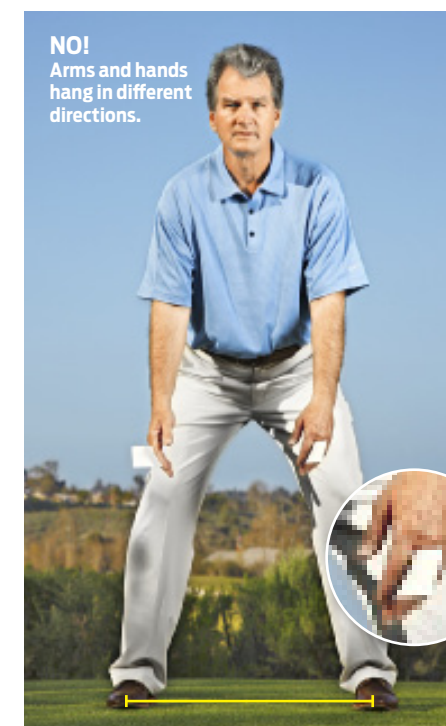
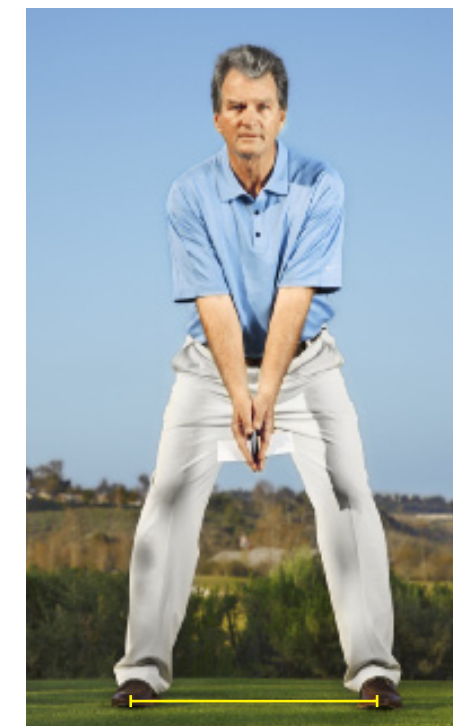
WHY YOU NEED IT

When you're imbalanced (i.e., standing at your perfect stance width) your COF shifts from the center of both feet (where it likes to be when you're balanced) to either your heels or your toes. Often, the COF will be in the heel of one foot and the toe section of the other. This sets the LOF at an angle to your target line [illustration, opposite page]. If your LOF points to the left of your target (like it does when the COF in your left foot is in the heel and the COF in your right foot is in your toes), you'll swing your putter to your left. The opposite occurs when your LOF points to the right of the target line.

HOW TO FIND IT

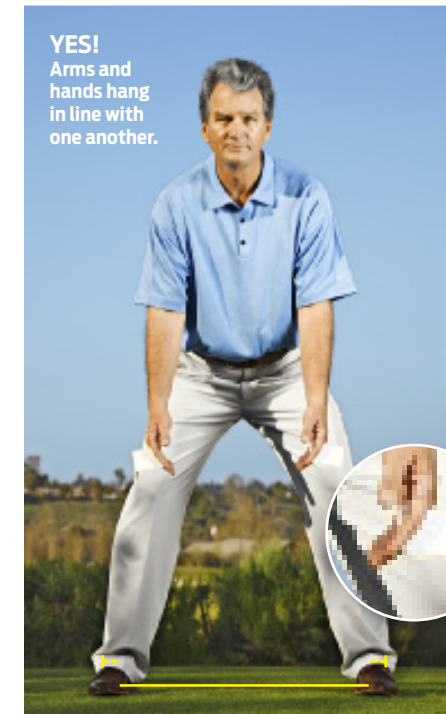
To determine if your current stance width is correct, begin by standing in front of a mirror. Take two credit or business cards and place them between your index and middle fingers [photos, right]. Assume your current stance width and place your palms together as though you're gripping your putter, with your right hand slightly lower than your left. From that position, relax your arms and hands and let them hang. At this point take notice of the orientation of the cards. If one of them turns in then you know your stance width is incorrect. Adjust your stance width until both cards point parallel to your target line. Once they do you'll know you're in the proper position.

“An out-of-balance stance creates tension.”



NO!
Arms and hands hang in different directions.

INCORRECT STANCE WIDTH
When I place business cards between my index and middle fingers and stand in an improper stance width, my left hand rotates inward.



YES!
Arms and hands hang in line with one another.

CORRECT STANCE WIDTH
When I move to my balanced stance width for a putter, notice how the cards are identical in how they set and how my arms and hands hang exactly the same. This is the balanced position that you're after.

THE IMPORTANCE OF PERFECT GRIP SIZE

WHEN YOU HOLD something that fits your grip size for both your left and right hands, your core muscles remain balanced and your COF is centered in each foot (assuming, of course, you have a proper stance width). When you place something in your hands that's either too large or too small, core tension results and creates a left or right rotation of your hips, causing the COF to move forward in one foot and back in the other. Research shows that the grip size of most standard putters fits less than 5 percent of all golfers. Thus, 95 percent of you have a right or left hip rotation and a COF that's forward in one foot and back in the other.



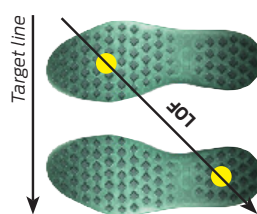
PULL
A grip that's too small for your hands forces your right knee to over-flex and your hips to open. This putt's going left.



PUSH
A grip that's too big for your hands forces your left knee to over-flex and your hips to close. This putt's going right.

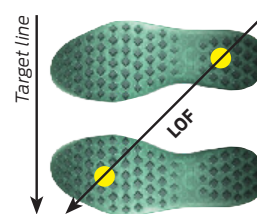
TOO SMALL

Here I'm using a putter grip that's too small for both my left and right hands. Even though I'm set up in my balanced putting stance width, the grip size error causes my right knee to flex more than my left, forcing my hips to open up to my target. This moves the COF in my right foot to my toes, and the COF in my left foot toward the heel. My putter path will track the resulting Line Of Force, which is outside-to-in with this particular grip size.



TOO BIG

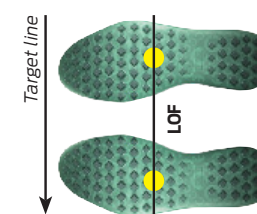
For this photo I've switched to a putter grip that's much too big for both my left and right hands. Notice that my left knee is now much more flexed than my right, and that the extra flex has forced my hips to close to the target line. As a result, the COF in my left foot has moved toward my toes, while the COF in my right foot has moved to my heel. This creates a Line Of Force that results in an inside-out putting stroke.



CENTERED
The correct grip size, coupled with the correct stance width, sets you up with perfect balance and aim.

JUST RIGHT

Here I'm using a putter grip that correctly fits both my right and left hands. Notice that the amount of flex is the same in both of my knees. My COF is in the same location in both feet, just behind the balls of each foot and just forward of the center of the arch. This Line Of Force sets me up for a path that's square to my target line.



BOTH HANDS MUST FIT

HERE I HAVE a grip that's the correct size for my left hand but too big for my right. Notice that when I have the putter in my left hand only [top photo], my knee flex is the same and my hips are square. But when I add my right hand [bottom photo], my left knee flex increases and my hips close.

Your putter grip must be fit to both your left and right hands. My left hand is about 100 mills (about 1/10 of an inch) larger than my right, so my putter grips have to be slightly tapered to fit my right hand.

To get an idea of the perfect grip size for your left and right hands, set a club on the ground parallel to your stance line and three or four inches away from your feet. Grip your putter and assume your setup. Notice if one knee extends farther out than the other using the shaft on the ground as a guide. If either does, then your current grip size is incorrect and you're establishing a LOF that doesn't match your target line. In other words, you're going to miss putts unless you make compensations in your stroke.



Take your grip with your left hand only...



...and if your posture changes when you add your right hand, you know you need tapered grips.

THE IMPORTANCE OF THE ANGLE OF SYMMETRY

ALL OF NATURE has symmetry, whether you're looking at the rings of a pinecone or the petals of a sunflower. Symmetry and balance are synonymous. The way you build symmetry and balance into your setup and stroke is to tap a naturally occurring angle in your body that I call the Angle of Symmetry. This angle varies from individual to individual. It's part of you, embedded in your DNA and in your physique.

HOW TO FIND IT

To locate your Angle of Symmetry, stand with your feet together and your arms hanging freely at your sides. Now, turn your palms so that they face directly away from you. Notice how this causes your forearms to angle away from vertical [photo, right]. This angle is your personal Angle of Symmetry, and it's entirely unique to you. It's the angle your body naturally creates to produce the most efficient and powerful motion.

"Your Angle of Symmetry is part of you, embedded in your DNA."

SYMMETRY & BALANCE
My Angle of Symmetry is 152 degrees. Yours will be different. The Angle of Symmetry is unique for each individual.



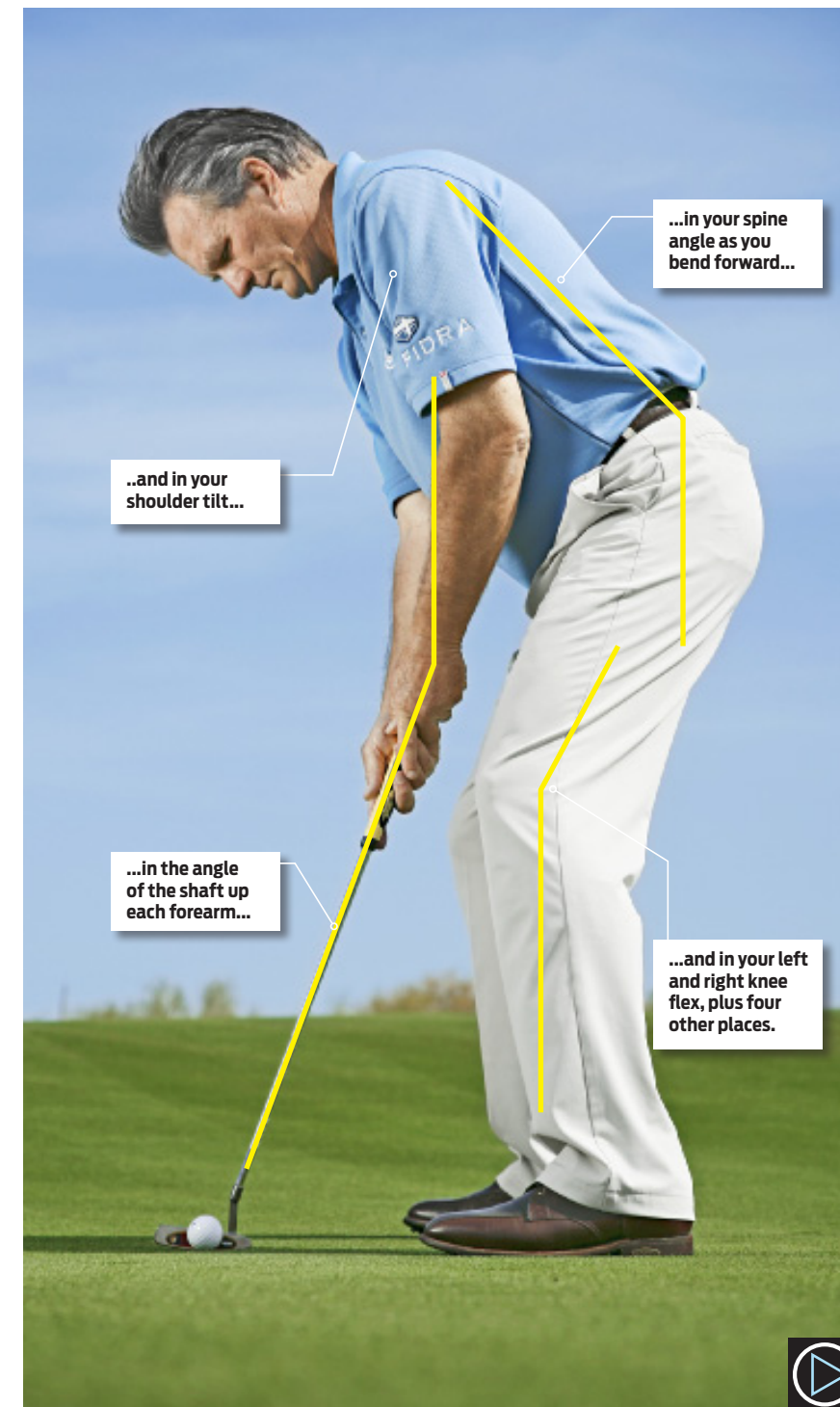
Your Angle of Symmetry shows up here...

...and in your left and right thigh angle...

HOW TO BUILD IT INTO YOUR ADDRESS

YOUR ANGLE OF SYMMETRY can easily be created by assuming a setup with a heavy weight held across your mid chest. This weight naturally sets your spine angle and thigh angle exactly the same as your measured Angle of Symmetry as you settle into your stance using your balanced stance width. The angle will show up in several parts of your setup, but only if your putter grip size fits both hands and if you're standing at your perfect stance width.

Notice in the photos above and at right how many times my Angle of Symmetry of 152 degrees is repeated in my setup (it actually shows up in 12 different places). From this position I have absolute balance and my putterface will remain square to the target line longer during my stroke than in any other address position. If you were to alter my grip size, posture or stance width, my Angle of Symmetry would begin to change and, as it changed, my putter path and face aim would move off the target line.



...in your spine angle as you bend forward...

...and in your shoulder tilt...

...in the angle of the shaft up each forearm...

...and in your left and right knee flex, plus four other places.

HOW TO SET YOUR ANGLE OF SYMMETRY

ON THE PREVIOUS pages I showed you how to find your Angle of Symmetry and build it into your posture. The next step is to set it to your whole address, including the way you position your putter behind the ball.

I recommend you start setting this position with your grip. If you try to jump into your address position before doing so, there's a good chance you'll get it wrong from the start.

To begin, hold your putter in front of your body with your right hand on the shaft [photo, below]. Angle the shaft away from your body so it matches your Angle of Symmetry (once you practice with your Angle of Symmetry you'll get really good at eyeballing it). Now set your left hand on the grip.

Once you have this position correct, tilt the shaft to the right, again to match your Angle of Symmetry [photo, right]. For me, this places the putter shaft on a line close to my right ear. Now place your right hand on the grip as you normally would. Again, learning this position will take some practice, but once you do learn it, it'll become second nature.

After your grip and arms are solid, bring the putter down to the ground by bending your knees and hips so they also match your Angle of Symmetry. Obviously, you'll need the help of a friend or a mirror at first, but it won't take long for you to find your Angle of Symmetry positions on your own.



STEP 1
Angle the shaft away from you the same number of degrees as your Angle of Symmetry.



STEP 2
Tilt the shaft to the right the same number of degrees as your Angle of Symmetry.

STEP 3
Bend your hips and knees and sole the club on the ground.

BALANCE AND PERSPECTIVE

ANOTHER MAJOR SIDE effect of an out-of-balance address position is an inability to see the line of a putt correctly. By being forced into an unnaturally open or closed stance your perception of the ball, the line of the putt and the hole will be thrown off, sometimes significantly.

When you're in absolute balance your visual perception of the putting line is accurate because you're in a neutral position. Be careful here: If you assume a balanced stance width with a wrong grip size, your perception of the line will be inaccurate and the putterface will aim left or right of the target line. The same holds true if you assume a balanced stance width but get your Angle of Symmetry wrong. The key is to get all three things correct and to have your COF in the middle of each foot.

What I want you to do once you learn your proper stance width, grip size and Angle of Symmetry is to start using that combination to more accurately read the line. Try going behind your ball and facing the hole straight on (stand perpendicular to the target line). Assume your balanced address position with the putter on the ground [photo, right]. Now examine the line. You've probably never had this perspective before, but it's much more accurate than the view you're getting with your current technique. Decide what line you want to take to the hole and memorize it.

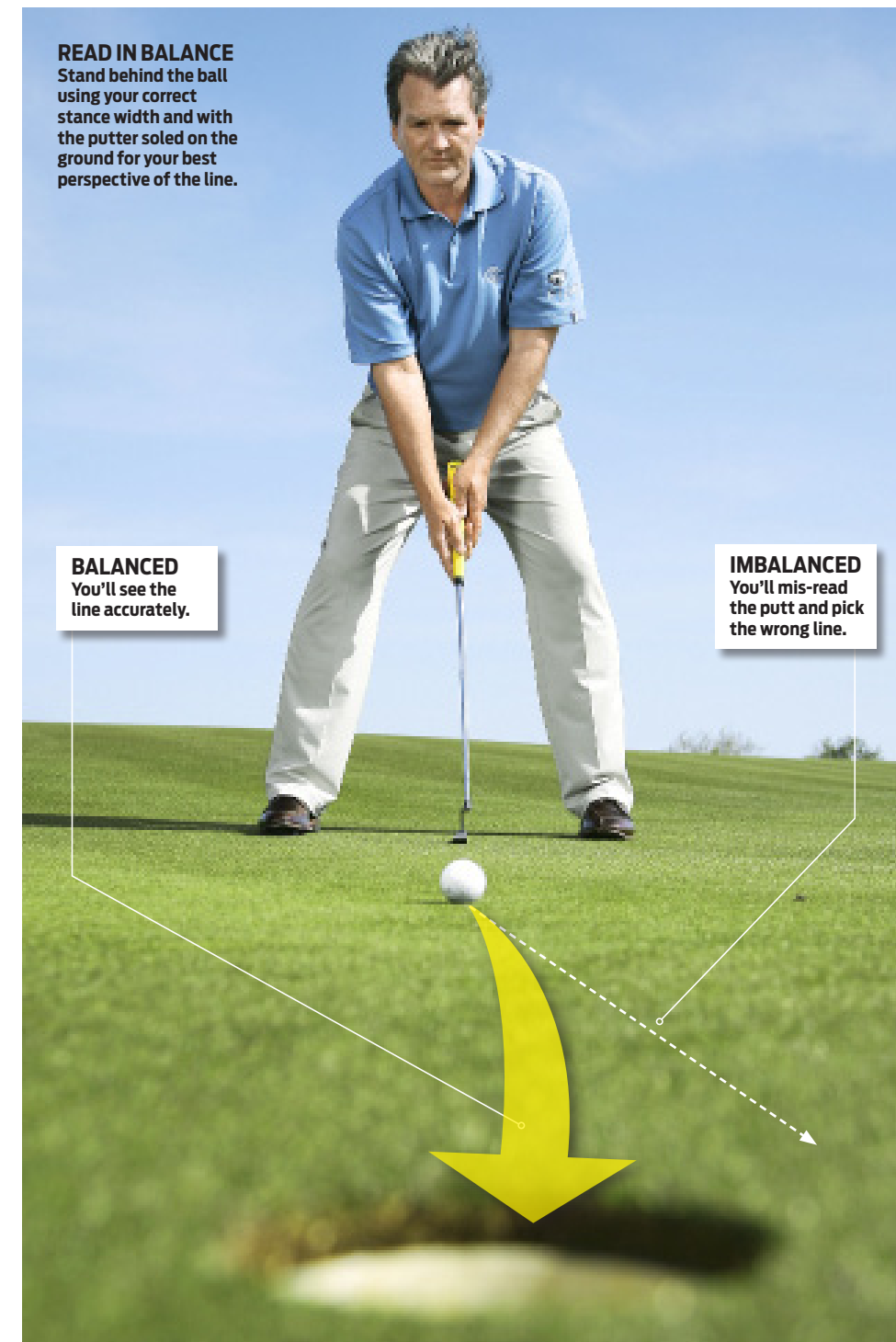
Now step to the ball as you normally would and again assume your balanced setup position. You should have a very clear idea of the line and be able to identify where to start the putt easily. Since you're in proper balance the line you swing the putter along should match the line you see with your eyes perfectly.

“When you're in absolute balance your visual perception of the putting line is accurate.”

READ IN BALANCE
Stand behind the ball using your correct stance width and with the putter soled on the ground for your best perspective of the line.

BALANCED
You'll see the line accurately.

IMBALANCED
You'll mis-read the putt and pick the wrong line.



PUTTING IT ALL TOGETHER: GRIPSIZE.COM

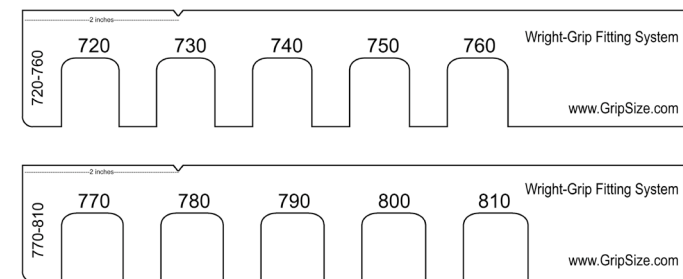
BY NOW YOU should have a pretty good estimation of your perfect stance width, perfect grip size and your Angle of Symmetry. But like most things in golf, any errors in your measurements will be magnified on the course. The information in this chapter is designed to help you recognize the importance of the three most critical setup elements and give you a ballpark figure for each. As you can imagine, there's a lot more to this story, and also in the way you can pinpoint your stance width, grip size and Angle of Symmetry down to the inch, mil and degree, respectively.

Unlike most custom-fitting techniques that rely on static measurements, our methods for nailing each of these three critical setup variables are based on your entire build and physi-



cal tendencies. It took a team of mathematical experts to create specific formulas to generate ironclad values based on detailed analyses of golfers' physiques, balance patterns and standard core dimensions. If you're interested in nailing your setup factors for good, then I encourage you to visit www.gripsize.com. There you'll find a detailed synopsis of my research and carefully designed tools to start your full address-position assessment. There's a charge involved, but the return will be well worth your investment, especially when the majority of your putts start to fall.

“Our methods for nailing the three setup variables are based on your entire build and physical tendencies.”

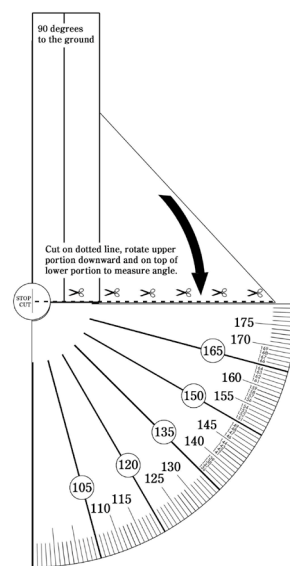


GRIP CALIPERS

All of the research materials you need to measure your hands, grips and Angle of Symmetry can be found on www.gripsize.com.

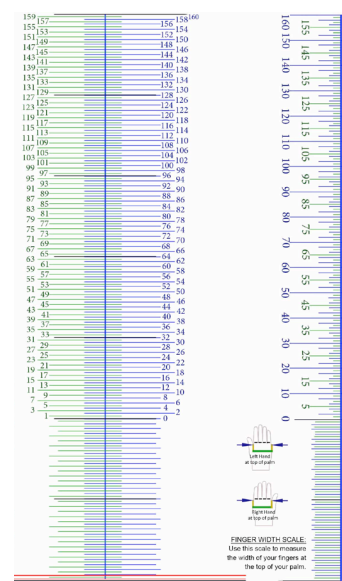
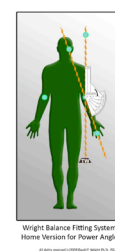
WWW.GRIPSIZE.COM

For less than the cost of 18 holes at your typical resort course, you can download several devices to perform a series of static measurements that, once entered into our online data form, allow our team to compute your perfect stance width, your perfect grip size and your Angle of Symmetry. Armed with these numbers you can create the ultimate address position—one that sets you up for putting success every time.



PROTRACTOR

Download this tool to accurately measure your Angle of Symmetry in a matter of minutes.



HANDS

Our site offers step-by-step videos and documents to help you perform accurate left- and right-hand measurements.

MANY OPTIONS, ONE FIT
There's a wide variety of grip sizes and designs on the market. Our detailed program weeds them out and picks the right one for you.

