

# Vitality Journal

April, 2008

Published By CCR STUDIOS

Vol. 2, Iss. 4



This Month:

*Swinging*

*Into The Zone*

*With John Lund, DC*

News Stand Price \$ 5.00



# April Feature Essay

John Lund, D.C.

## Optimal Balance, Golf's Missing Link

### Balance Made Perfect

Optimizing the Central Nervous System is what the Bio Cranial™ System (BCS) does best. As fellow chiropractors, dentists and medical doctors, we have all seen the tremendous potentials that lie within the walls of the human skull and its associated connective tissue "The Dura".

From the Halls of Academia to the playing fields of our most beloved sports the Bio Cranial™ System will set standards of therapy and excellence.

Over the last few years I have had the opportunity to witness and experience the benefits of BCS on the fairways of some of California's most beautiful golf courses.

My experience started some eight years ago when I was first introduced to cranial therapy. Looking in retrospect I then thought that all my golf improvements were just a coincidence and nothing more.

From that moment on, I would never look at human balance the same way again. As I began to treat others, they too had similar experiences with improved distance and accuracy.



### WHAT IS AUTONOMIC BALANCE?

Autonomic balance is your own body's internal balance system void of conscious control. Much like the other systems of your body, e.g., heart, lungs, kidney and digestive tract, these are all under the control of the autonomic nervous system.

This specific autonomic balance system is similar to two GPS systems lying side by side within your skull; each expressing to your brain where you are in space. These specialized organs are called semicircular

canals and are self regulating and function optimally when your temporal bones are perfectly positioned. Misalignment of these bones can produce extreme balance disorders like vertigo, BPPV, and Menieres disease. This positioning of the temporal bones is the KEY to producing perfect balance in your golf swing!

#### *Why is Autonomic Balance so important?*

Without this optimal position of your temporal bones, no

training program will have any affect on your golf swing. All other learned programs will have fleeting success, at best. The advantages to BCS are it only requires periodic care.

#### *What are the benefits of this procedure?*

What this Bio Cranial produces is a rock solid balance platform for major axial rotation of the spine which equates to faster club head speed and better accuracy. In windy conditions your body will not be buffeted

- What is Autonomic Balance?
- Mario Cesario, Professional Clubmaker
- New Trials and Testing
- Applying Physics to Golf by Dave Tutelman
- "The Search for the Perfect Swing" by authors Alastair Cochran and John Stobbs
- PGA Golfer's Testimonials

as much and you will have a feeling of major stability from the feet up.

### *Autonomic balance versus other balance therapies*

The BCS takes only minutes to implement and tends to be long lasting. Even after the first procedure most golfers will see the immediate change in their swings. Any swaying in your swing will be dramatically reduced or eliminated.

You “consciously” won’t feel any difference, but your body will now respond to a higher level of balance not experienced before. Optimal balance can be achieved with as few as two to four Bio Cranial sessions depending upon the severity of temporal bone misalignment.

Other balance therapies require hours of muscle memory education. When these therapies are discontinued, the body starts a slow but steady decline in muscle

memory, not so with the BCS.



### **MARIO CESARIO PROFESSIONAL CLUBMAKERS HALL OF FAME MEMBER**

Recently I have had the honor to meet and work with a giant in the field of golf club design and club fitting, Mario Cesario. Mr. Cesario is considered one of the finest clubmakers and premier designers the sport of golf has seen in the 20<sup>th</sup> century. With over 55 years of club designing and manufacturing, Mario has truly impacted the game, leaving an indelible mark on the sport of golf and club design.

At a young age, Mario took to the instruction of Jack Pirie, a clubmaker and golf instructor from Scotland. It was under the attentive watch of Pirie that Cesario honed his skills as a clubmaker, utilizing an eye for detail and working knowledge of club mechanics.

Although Mario tried his hand as a professional golfer, he realized his passion lay in club design and manufacturing. In 1958 he opened “Mario’s Golf Shop” and was the first

“authorized” repair center for Ben Hogan Company.

To increase his clubmaking knowledge and skills, he worked part time for Hand Craft Golf Company in New York. It was here that Mario adopted the total custom approach for club design and manufacturing; making every wood by hand.

From the time Mario opened shop in 1958 to 1996, he became a pioneer in the industry, developing special resins for clubs, creating the “Dimple Wood” and incorporating cutting edge technology in his club designs. During this period, Cesario’s craftsmanship became well known with golfers throughout the world, creating a high demand for his hand crafted woods. Players such as Tom Watson, Gary Player, Craig Stadler, Dave Stockton and Patty Sheehan are among some of the professionals who have played with Mario’s clubs.

Along with the rewarding career of club making, Mario

has been the recipient of many awards from his peers. In 1984, Mario was inducted as an Honorary Life Member in the Southern California Section of the PGA of America for his educational contribution to the game of golf. In 2000, Cesario was inducted into the Professional Clubmaker’s Society Clubmakers Hall of Fame.

Mario has designed and manufactured clubs for RAM, Daiwa, M c H e n r y Metals Sino Golf and designed and developed the 350cc Beta Ti Driver.

With Mario’s rich background in golf and golf technology, I offered Mario an opportunity to experience BCS, however prior to treatment  
(continued next page)



(cont'd) I wanted to validate an important point; that was to prove that BCS actually improved club head speed.

Using Mario's Velocity Launch Golf Monitor, which uses the latest in doppler radar tracking, we tested his club speed prior to BCS then re-tested his club swing after treatment and to our amazement we found that the improvement was increased 5-6 mph which equates to an extra 15 yards in driving distance.

After seeing the improvement, I was convinced that BCS had tapped into the autonomic balance system. Truly, the **ultimate** in balance improvement that requires no learning on the part of the golfer.



Velocity Launch Golf Monitor

**Mario Cesario's Testimonial**

*When I heard that Bio Cranial could help increase my clubhead speed in golf, I was*

*speed again and notice an increase of 4-5 mph (88 MPH average).*

*I believe my increase of mph was due to producing perfect*



*very interested. Since reaching the age of 73, I have lost a little distance in my golf game. So prior to my Bio Cranial treatment, I checked my clubhead speed at 83 mph average.*

*balance in my golf swing, which produced better and consistent contact with the ball.*

*As a clubmaker and club designer I am very interested in the relationship of Bio Cranial and the golf swing.*

*After the first treatment I noticed a sense of better balance. After the third treatment I then checked my clubhead*

**NEW TRIALS AND TESTING WITH SELECT GOLFERS**

**Increased Club Speed Equals Greater Driving Distance**

Initially we are going to test 10 - 30 golfers who meet the criteria for poor autonomic balance. The test location will be held at a prestigious Country Club in southern California.

Those accepted in the study will be provided a health questionnaire targeting the musculo-skeletal system, autonomic nervous

functions and wellness index. Blood pressures will be recorded before and after testing for comparison.

Each participant will have their driver and 5 iron marked with face tape by Mario to record a 10 shot dispersion pattern that will be saved for later comparison.

This test is to validate or invalidate the theory that better balance improves club face accuracy. Comparisons of both speed and face strik-

ing accuracy will be noted during subsequent testing. Mario will record 10 readings via the Velocity Launch Golf Monitor prior to applying the Bio Cranial procedure. Handicaps will be recorded and subsequently compared over a period of 3 to 6 months.

Former PGA golfers prior to this study noted dramatic increases in club head speed: yielding longer tee shots.



10 Shot Dispersion Pattern

## APPLYING PHYSICS TO GOLF ► What powers the swing?

Most of the power in a golf swing comes from centrifugal force, generated by the muscles that rotate the body through the swing. Before explaining it further, let's look at the physics of the golf swing.

### The Double Pendulum

When an engineer sets about analyzing a real-world system -- like a golf swing -- he creates a physical "model" of the system. This is a set of elements that are simple enough to yield to calculations, yet complex enough to represent what is actually going on. Finding the right model -- the right balance between simplicity and complexity -- is the first and often the hardest step in engineering analysis.

The simplest model that makes any sense at all for the golf swing is a double pendulum. The two members of the pendulum are:

- The golfer's shoulders and arms, taken as a single rigid unit. That's the green triangle in the diagram. We'll call that "*the triangle*" in the discussion that follows.
- The golf club, also taken as a single rigid unit.

The triangle is hinged to the golfer's body (the tan elements in the diagram) so it can turn. Similarly, the golf club is hinged to the other end of the triangle.

This is a very simple model, having only two moving elements hinged together. To see just how simple, let's re-draw it the way an engineer would: as a collection of free, hinged bodies. Now we can see why the model is a double pendulum; it is a black pendulum (the club) hanging from the end of a green pendulum (representing the triangle)

***This hinge affect of the two pendulums, creates the majority of club head speed . By utilizing the golfer's energy about this central axis, and not losing energy by sliding the body forward toward the target, the golfer can, in theory, increase club head speed.***

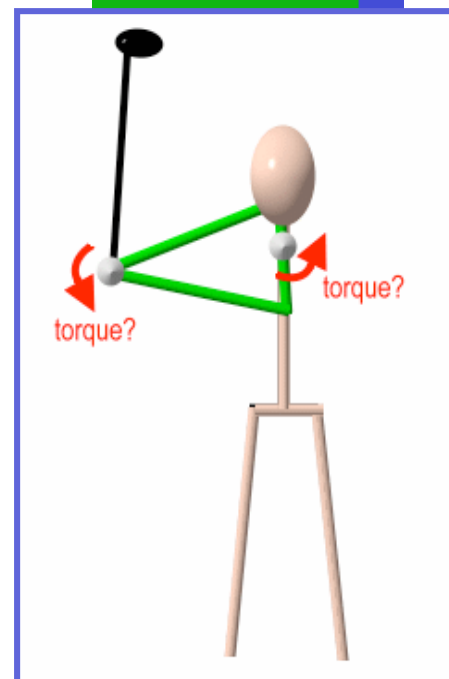
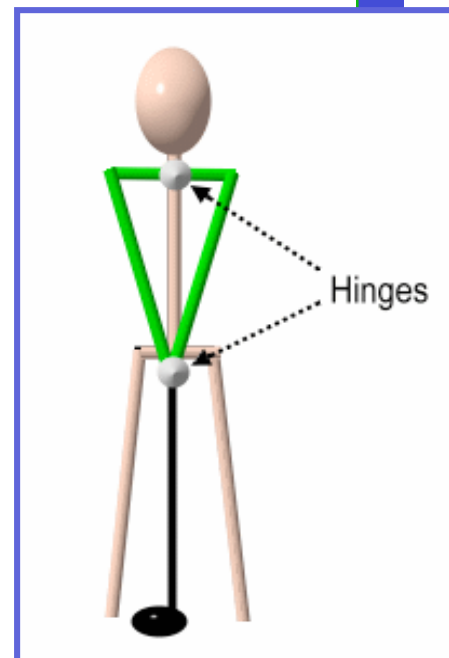
Given the simplicity of the model, it's pretty amazing how close it can get to the actual measured performance of a golfer's swing. True, there are a lot of nuances of the swing that it doesn't capture. But experience has shown it is rich enough to explain where the club head speed comes from in a good swing.

Let's look at the next question about using the model. We have two hinges, and we can apply a torque at each of those hinges. Those two torques -- plus gravity -- are the only forces in this model that will cause the golfer to swing the club.

So the engineering model has to say what kind of torque:

- The body applies to the shoulders to turn the triangle.
- The hands and wrists apply to the club to uncock it and bring it to impact.

It turns out that the torque the body applies to the triangle is considerable, but a good swing applies almost no torque to the grip of the clubs by the hands. Yet more than half of the clubhead speed comes from the club turning about the hands at the bottom of the swing -- much more than could be explained simply by shoulder turn. What is creating that very strong rotation of the club about the hands, if the hands are not being used to supply a "hit" force?



## Applying Physics To Golf by Dave Tutelman (Excerpt)

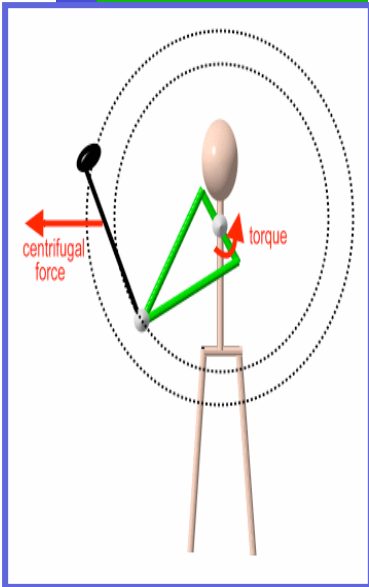
The answer is centrifugal force. Remember that a body in motion wants to keep moving in a straight line. But the golfer is pulling the club around in a circle. According to Newton, the club wants to fly outward from the circle; the force that is trying to pull it out straight with the arms is centrifugal force. That centrifugal force is generated by pulling the club in a circle around the shoulder hinge, and the force wants to pull the club straight out along a radius from that hinge.

### Muscle energy

There isn't anywhere near that much muscle in the forearms, hands, and wrists, so they can't be the major driving force of the swing. You need the big muscles -- the legs, thighs, torso, and shoulders -- to create that much power. That verifies that the clubhead's energy comes from body rotation, not hand torque. But it doesn't unambiguously point to centrifugal force as the enabler.

But we should be able to compute the clubhead speed that would result if we only used body rotation and not centrifugal force. Without any velocity at impact from uncocking the wrist, just from body rotation, we get less than half the clubhead speed that a good swing actually accomplishes. So we need centrifugal force because:

*We know the bulk of the power comes from body rotation.*



## A Hub for the Swing A QUOTE FROM "The Search for the perfect swing"

*"Keeping the Hub still, and swing in the plane around it while working on aligning his swing towards the target, and then on working the swinging action of his hands around the hub with that set alignment, what else must the golfer concentrate on in order to reproduce the primary upper-lever action of the simple golfer model?"*

*The other main point to stress is that he must keep the center of the whole action firmly fixed, as the central pivot is fixed in the model, if the swing is to work in its simplest and most powerful form, which alone can make it a consistent and repeating one.*

*He must do so from the least the very beginning of the forward swing up to the moment of striking the ball.*

*This is a fact which can be derived from the mechanics of the model. A golf swing can work effectively, after a fashion, even if the central pivot is moving forward towards the hole during the downswing-so long as the whole action of the two lever system is*

*timing to flow with this movement of the pivot.*

***But moving the pivot (which means moving the whole body), during the forward swing inevitably reduces any player's ability to generate the greatest possible clubhead speed into impact, for the very simple reason that it uses up, wastefully, energy which might have gone into club head speed.***

*It also makes the swings working more complicated in a way which most men and women could do without."*

**Quote taken from "The Search for the Perfect Swing" by Authors Alastair Cochran and John Stobbs. Pages 33 and 34. Copyright 1968 The Golf Society of Great Britain. This is a classic!**

Once again the Bio Cranial procedures generates the stability within the golf swing by optimizing the autonomic balance system thru temporal bone alignment. By reducing sway, power is harnessed with maximum power to the club head.

Science and the sport of golf are blended within these two articles. Both men, Cochran and Tutelman, recognized the necessity for stability of axial rotation within the swing.

This simple but eloquent concept is what can and will launch the Bio Cranial System into the spot light of the sports world.

A "platform of stability for every sport": that could be our Motto.

I've enjoyed sharing this material with all of you doctors and will be continuing to bring updates on the progress of our trials.

In future issues of *Vitality Journal* it will be our intention to keep you abreast of changes in each of our golfers, their comments, and their performance.

## PGA Golfers Bio Cranial™ Testimonials

*As a member of the PGA of Southern California and Golf Club in Beaumont, California I have treated several professional golfers with the Bio Cranial System. Alan Briggs, PGA Teaching Professional, Goose Creek Golf Club, Mira Loma, CA - Don Gatch, Class A Member of the PGA of America and Real Estate Consultant for Coldwell Banker Residential Brokerage, Mark Bland, Dean of Admissions for Professional Golfers Career College, Murrieta CA, Dr. Jerry Elwell, recently with Max Out Golf Labs and Golf Amateur, Doug Bader, owner of Crest Chevrolet, San Bernardino, CA*

### Alan Briggs

As a PGA Teaching Professional, I always tell my clients that in order to maintain a good golf game, whether you're a professional or amateur, it's important to have a clear mind, healthy body, and steady golf swing. Part of a great golf swing includes being centered, even, and stable. In 2001 I was experiencing problems with vertigo which was affecting my game. After a series of Bio Cranial procedures I felt more centered, grounded, and balanced. In fact, after that series of procedures I shot the course record at Goose Creek Golf Club during a Southern California PGA Section Tournament.

My next series of procedures did not occur until 2004 when I felt like I had lost my equilibrium and felt the vertigo problems interfere with my game again. This series of procedures contributed to my 4 shot win at Crystalair Golf Club's Pro/Am. This taught me to not wait too long between Bio Cranial procedures because it's possible to take our equilibrium for granted and forget that corrections are necessary for a smooth, well balanced swing.

Now I'm in for my third set of procedures and I plan on continuing with a maintenance

program to not lose what Dr. Lund and I are building. Because of my experiences and passion for golf, I recommend Dr. Lund's Bio Cranial procedures to help with a stable, steady, and well balanced golf swing.

### Don Gatch

"It's always important to maintain a relationship with your local PGA Professional. Add to that a simple Bio Cranial procedure and you can play better golf NOW! When you take lessons in the future you will learn at an accelerated rate." – Don Gatch

Don began his career as a Golf Professional in 1992 on Kiawah Island, SC. After 14 years of hard work, Don was recently nominated for the 2006 and 2007 Clubfitter of the Year for the Inland Empire Chapter of the Southern California PGA. He was also nominated for the Clubfitter of the Year for the 2007 Southern California Section of the PGA of America. In 2005, he served as Secretary of the Desert Chapter of the Southern California Section of the PGA of America. Don has held positions as Assistant Golf Professional, Head Golf Professional and General Manager at some of the top ranked Private Clubs and Golf Resorts in the World like: *The Ocean Course* – Kiawah Island, SC – *The River Course* – Kiawah Island, SC – *The Golf Club at Briar's Creek* – John's Island, SC – *Barefoot Resort and Golf* – Myrtle Beach, SC – *Landmark Golf Club* – Indio, CA – *Trilogy GC at La Quinta* – La Quinta, CA – and *Shadow Hills Golf Club* – Indio, CA.

In 2006 he met Dr. John Lund during a professional club-fitting in Beaumont, CA. While Dr. Lund was "getting fit" to golf equipment by Don, the importance of bal-

ance in the golf swing was discussed. They both agreed that most players face major challenges in their swings with Static and Dynamic Balance.

As a PGA Golf Professional, Don has always given his students balance drills, (which only seems to help for a short time). Don has always said that "Players aren't able to LEARN to be balanced". "They get it for a short while and then they loose it".

Dr. Lund explained Bio Cranial and Don was treated for his own balance. Although skeptical, immediately, Don's balance got better. He noticed right away that he was more "grounded" in his full swing and around the greens. He noticed that he remained more still and hit his shots more consistently in the center of the clubface than ever before. The best thing was that he didn't have to "practice balance", he just had it. Today, Don plays better golf, with little or no practice.

### Mark Bland

My experience with the Bio Cranial System has been nothing short of spectacular! Prior to an examination and procedure by Dr. Lund, I had an extreme balance problem. As a golf professional, this greatly diminished my ability to perform well and enjoy the game of golf. Losing my balance during the golf swing and subsequent falling over was very embarrassing. I played golf with Dr. Lund and experienced the balance problem. He offered his expertise and explained thoroughly the benefits of the BCS procedure. The results of his procedure were almost immediate. Within weeks of the final visit, my game improved, the balance was back, and I once again enjoyed the game of golf. I offer my enthusiastic endorsement to the Bio Cranial procedure and the first rate procedure provided by Dr. John Lund.

### Jerry Elwell

At the request of my colleagues, PGA Professionals, Allan Briggs and Mark Bland, I became familiar with the Bio Cranial balancing techniques. After just 4 sessions with Dr. Lund, I am now a "raving fan". I had no idea that, in spite of my good physical condition, I was so off balance. Proper balance is critical in the game of golf and since my business is all about golf performance, I am thrilled to have found another way to help my students achieve optimal results. Without hesitation, I have recommended the Bio Cranial System to many of my colleagues, students and friends, both in and out of the golf world.

### Doug Bader

I love to play golf. About 3-4 years ago, I had a lower back problem so bad that it affected my golf game. In fact, it affected my routine where I was in pain all the time. I had chiropractic and massage therapy, but had no relief. I made an appointment with Dr. John and after an examination and certain tests, he introduced me to BCS. I started the Bio Cranial and after several procedures my lower back pain was gone. I can walk without pain, and best of all, my golf game has improved dramatically! I went from a 29 handicap to 19 in three months. The BCS procedures did the trick and I would recommend this to anyone with lower back pain, or just to improve your balance, or swing, or handicap for golf!

