

## Letter to the Editor: Is Golf the New Football or Have We Made It So?



Sir,

We read with interest the article by Goebel et al. [1] (Goebel D, Drollinger F, Drollinger A. Lumbar Spine Injuries: Primary Prevention in Amateur and Professional Golf Players. *Sports Med Int Open*. 2018; 2:179–184). We have been deeply interested in this sport and delved on the musings of competitiveness causing athletes to put un-natural strains on their bodies and vice-versa. While we do understand the cause of Lumbar spine injuries caused by athletes putting undue stress on their bodies, we need to understand that the reason for the same.

If we have a look at the driving distances of pro-golfers over the years [2] (► **Table 1**) we will notice that Dan Pohl held the lead averaging 274.3 yards per drive with the tours average being a paltry 256.89 yards. Since then the average distance has kept on increasing with the maximum increase being in the year 2003. What is even more striking is that despite his numerous PGA titles, Tiger Woods never features on the leader board. So are we missing something here which is not entirely explained by just the golf swing of the players as has been beautifully explained by the author?

There are many factors that we might have overlooked. The physical condition of the golfers is now better than before. The clubs they use are no longer wooden. In fact, they are now made using titanium or zirconia and are now computer designed for greater durability, accuracy and balanced weight distribution, the driver's heads have become larger for better distance and accuracy. Golf courses are now better maintained. They are regularly mowed and grass is kept trim to allow minimum friction and ensure maximum driving distance.

Another big reason for the increased driving distances is the golf ball. The earliest golf balls were likely wooden made from Beech or Boxroot and were later replaced by "Featheries" or "Hairies", which were leather sacs filled with feathers or hairs respectively. In 1848, Rev. Dr. Robert Adams

created golf balls out of the tree Gutta Percha called as "Gutty" balls. The Gutty golf ball was created from the dried sap of the Sapodilla tree. Soon after it was noticed that balls with marks or 'dimples' on them fly farther as the air turbulence reduced the relative weight and thus they flew further. Further evolution came with the 'multilayered' ball which was marketed as 'Titleist 1™'. It replaced the liquid in the wound ball with two cores- rigid inside core which allows it to fly further and the flexible outer layer that ensures accuracy. This was introduced in the year 2000 and became widely accepted within 2–3 yrs, around the same time that driving distances skyrocketed [3].

However, the major point of this article is that due to all these advances and because the players are now putting undue stress on their body to hit farther, the courses have had no choice but to increase the course length. In the 2014 masters tournament at the 14<sup>th</sup> hole (named 'Chinese Fir') of the Augusta National, Bubba Watson was able to cut the corner at an L shaped course and fly his ball over the trees, directly in front of the green, thus reducing a Par 4 hole to a two shot one. This was not possible before. During the same time, the Augusta National course increased its length from a measured 6 985 yards in the year 2000 to 7 435 yards in a 10 year span [4]. As for the 14<sup>th</sup> hole the club decided to buy land behind the L shaped course and many like it, making it more difficult to 'cut-the-corner'. Thus the golfers now had to hit farther and again put undue stress on their bodies, leading to RTD, as the authors have so beautifully explained.

### What we need to understand and advocate is how much is too much?

There are many precedents in sports where regulating authorities have neglected the health of their players in the face of the public's demand for increased competitiveness. A precedent, which bears similarity with golf, is tennis. With a similar swinging action needed to hit the ball like that described by the author

for golf, similar injuries were bound to be seen. Andre Aggasi lost his final match to 25-year-old Benjamin Becker, a German who'd turned pro the year before and was ranked 112 and announced retirement just 4 weeks before wimbeldon. In his biograaphy 'Open', he describes a tough childhood with rigorous training by his father, a factor which later lead to his success and his spondylolisthesis. He was taking steroid injections along with other anti-inflammatories during his final years of tennis. When it was all over, the crowd at Arthur Ashe stadium gave Agassi a four-minute standing ovation as he rested in a courtside chair before making his goodbyes.

There is a debate on whether the golf ball size needs to be increased and whether dimpling needs to be removed. All these would only lead to further stress in the already traumatized spines of golfers and increase in Lumbar spine injury rates. What we need to propagate as aptly pointed out in the article is the need to take care of the athlete's body and not push it over the breaking point. Alas the fate of golf should not be that of football with Lumbar spine injuries being compared to that of Chronic traumatic encephalopathy and adjacent segment disease dictating the lives of these professional atheletes.

### Disclosure

The authors report no sources of financial and material support for this research. No portion of the contents of the paper may have been presented previously.

### References

- [1] Goebel D, Drollinger F, Drollinger A. Lumbar spine injuries: Primary prevention in amateur and professional golf players. *Sports Med Int Open* 2018; 2: E72–E73
- [2] How driving distance has changed over the past 40 years on the PGA tour. Available at: <https://www.pga.com/news/pga-tour/how-driving-distance-has-changed-over-past-40-years-pga-tour> Accessed on March 15 2019

► **Table 1** The Average driving distance on the PGA tour for the past 40 years along with the leader and his average<sup>1</sup>.

| Year | Average Distance | Leader          | Leader's Average |
|------|------------------|-----------------|------------------|
| 2018 | 295              | Trey Mullinax   | 318              |
| 2017 | 292              | Rory McIlroy    | 316              |
| 2016 | 291              | JB Holmes       | 314              |
| 2015 | 290              | Dustin Johnson  | 317              |
| 2014 | 289              | Bubba Watson    | 314              |
| 2013 | 288              | Luke List       | 306              |
| 2012 | 290              | Bubba Watson    | 315              |
| 2011 | 291              | JB Holmes       | 318              |
| 2010 | 287              | Robert Garrigus | 315              |
| 2009 | 288              | Robert Garrigus | 312              |
| 2008 | 287              | Bubba Watson    | 315              |
| 2007 | 289              | Bubba Watson    | 315              |
| 2006 | 289              | Bubba Watson    | 319              |
| 2005 | 288              | Scot Hend       | 318              |
| 2004 | 287              | Hank Kuehne     | 314              |
| 2003 | 286              | Hank Kuehne     | 321              |
| 2002 | 279              | John Daly       | 306              |
| 2001 | 279              | John Daly       | 306              |
| 2000 | 273              | John Daly       | 301              |
| 1999 | 272              | John Daly       | 305              |
| 1998 | 270              | John Daly       | 299              |
| 1997 | 267              | John Daly       | 302              |
| 1996 | 266              | John Daly       | 288              |
| 1995 | 263              | John Daly       | 289              |
| 1994 | 261              | Davis Love III  | 283              |
| 1993 | 260              | John Daly       | 288              |
| 1992 | 260              | John Daly       | 283              |
| 1991 | 261              | John Daly       | 288              |
| 1990 | 262              | Tom Purtzer     | 279              |
| 1989 | 261              | Ed Humenik      | 280              |
| 1988 | 263              | Steve Thomas    | 284              |
| 1987 | 262              | John McComish   | 283              |
| 1986 | 261              | Davis Love III  | 285              |
| 1985 | 260              | Andy Bean       | 278              |
| 1984 | 259              | Bill Glasson    | 276              |
| 1983 | 258              | John McComish   | 277              |
| 1982 | 256              | Bill Calfee     | 275              |
| 1981 | 259              | Dan Pohl        | 280              |
| 1980 | 256              | Dan Pohl        | 274              |

- [3] The Augusta National Course. Available on: [http://www.masters.com/en\\_US/course/index.html](http://www.masters.com/en_US/course/index.html) Accessed on March 15 2019
- [4] The Golf ball that made golfers too good. Available on: [www.vox.com](http://www.vox.com) Accessed on March 15 2019

### Authors

Harsh Deora<sup>1</sup>, Nishant S Yagnick<sup>2</sup>, Manjul Tripathi<sup>3</sup>, Sandeep Mohindra<sup>3</sup>

### Affiliations

- 1 Dept. of Neurosurgery, National Institute of Mental Health and Neurosciences, Bengaluru, India
- 2 Dept. of Neurosurgery, Paras Hospitals, Gurgaon, India
- 3 Dept. of Neurosurgery, Postgraduate Institute of Medical Education and Research, Chandigarh, India

### Correspondence

Manjul Tripathi  
 Assistant Professor, Department of Neurosurgery  
 Neurosurgery Office  
 Post Graduate Institute of Medical Education and Research  
 Chandigarh  
 Pin-160012  
 Tel.: +91/990/2355 730,  
 drmanjultripathi@gmail.com

### Bibliography

DOI <https://doi.org/10.1055/a-0985-0449>  
 Sports Medicine International Open 2019; 3: 1–2  
 © Georg Thieme Verlag KG Stuttgart · New York  
 ISSN 2367-1890

