Golf Resume

Debbie Crews, Ph.D.

2013-Present	Expert Advisory Board of Golf Magazine's Top 100 Teachers Organization
2012-Present	Inaugural Editor of the International Journal of Golf Science. This is a golf research journal published by Human Kinetics. It is the official journal of the World Scientific Congress of Golf.
2012-Present	Advisory Board Member of the Swedish Golf Federation.
2011-Present	National Alliance for Accessible Golf
2011-Present	Consultant Member Thinq Sports
2008-Present	Chair of the World Scientific Congress of Golf. This is the only research organization for golf across the world.
1999-Present	Master Professional - Ladies Professional Golf Association (LPGA)
1997-Present	Member LPGA Teaching and Club Professional (T&CP), Education and Research Committee.
1981-Present	Member LPGA T&CP. Assisted with development of the Teacher Education Program.
1979-Present	Intern, Interim Coach, Sport Psychology Consultant to the Arizona State University Women's Golf Team.
2007-2012	Sport Psychology Consultant to the Arizona State University Men's Golf Team.
1995-2008	Advisory Board World Scientific Congress of Golf.
Awards	
2015	U.S. Patent: A U.S. Patent No. 8990045 was awarded March 5, 2015 for a feedback training system to improve performance
2012	LPGA Central Section Professional of the Year
2011	Ellen Griffin Excellence in Teaching Award
2010-2012	America's Best Women Teachers (#8) was awarded by Golf Digest Magazine.
2003/2012	Golf Digest Top Teachers in Arizona was awarded by Golf Digest magazine.
2003/2008	Golf for Women Top 50 Teacher was awarded by Golf for Women magazine.

2000	Science in Golf Prize was awarded by Golf Magazine for the best science in golf. The prize was a featured article in Golf Magazine and the award was \$10,000.
2000	LPGA Western Section - Teacher of the Year was awarded by the membership of the Western Section - Ladies Professional Golf Association Teaching and Club Professional Division.
1992	U.S. Patent: A U.S. Patent No. 5,160,141 was awarded November 3, 1992 for an original golf putter.
1990	American Psychological Association - Exercise and Sport Psychology Division (47) - Dissertation of the Year Award Division 47 of the American Psychological Association offers a dissertation award annually. One recipient was "The Influence of Attentive States on Golf Putting as Indicated by Cardiac and Electrocortical Activity."
1989-90	Sport Psychology Academy Dissertation of the Year Award The Sport Psychology Academy of the Alliance for Health, Physical Education, Recreation, and Dance offer a dissertation award annually. The recipient was "The Influence of Attentive States on Golf Putting as Indicated by Cardiac and Electrocortical Activity."

Scientific Research Articles

- 1. Adler, C.H., **Crews, D.J**., Kahol, K., Santello, M., Noble, B.S., Hentz, M.S., Caviness, J.N. (2011). Are the yips a task-specific dystonia or "golfer's cramp"? Movement Disorders Western Hemisphere.
- 2. Adler, C.H., **D.J. Crews,** J.G. Hentz, A.M. Smith, J.N. Caviness. Abnormal Co-contraction in Yips-affected but not Unaffected Golfers: Evidence for focal dystonia. Neurology, 64, p.1813 (2005).
- 3. Smith, A.M., C.H. Adler, **D. Crews**, R.E. Wharen, E.R. Laskowski, K. Barnes, C.V. Bell, D. Pelz, J.S. Brennan, M.C. Sorenson, K.R. Kaufman. The 'Yips' in Golf: A Continuum Between a Focal Dystonia and Choking. Sports Medicine, 33(1), p.13-31 (2003).
- 4. Smith, A.M., S.A. Malo, E.R. Laskowski, M. Sabick, Q.P. Cooney III, S.B. Finnie, **D.J. Crews**, J.J. Eischen, I.D. Hay, N.J. Detling K.Kaufman. A Multidisciplinary Study of the 'Yips" Phenomenon in Golf. Sports Medicine, 30(6), p.423-437 (2000).
- 5. **Crews, D.J.**, D.M. Landers. Electroencephalographic Measures of Attentional Patterns Prior to the Golf Putt. Medicine and Science in Sports and Exercise, 25(1), p.116-126 (1993).
- 6. **Crews, D.J.**, S.H. Boutcher. An Observational Behavior Analysis of Ladies Professional Golf Association Tour Players. Journal of Sport Behavior, 9(2), p.51-58 (1986).
- 7. Boutcher, S.H., **D.J. Crews**. The Effect of a Preshot Attentional Routine on a Well-Learned Skill. International Journal of Sport Psychology, 18, p.30-39 (1986).

- 8. **Crews, D.J.**, J.H. Shirreffs, G. Thomas, G.S. Krahenbuhl, H.M. Helfrich. Psychological and Physiological Attributes Associated with Performance of Selected Players of the Ladies Professional Golf Association Tour. Perceptual and Motor Skills, 63, p.235-238 (1986).
- 9. **Crews, D.J.**, S.H. Boutcher. Effects of Structured Preshot Behaviors on Beginning Golf Performance. Perceptual and Motor Skills, 62, p.291-294 (1986).
- 10. **Crews, D.J.**, G. Thomas, J. H. Shirreffs, H.M. Helfrich. A Physiological Profile of Ladies Professional Golf Association Tour Players. The Physician and Sportsmedicine, 12(5), p.69-74 (1984).

Refereed Published Proceedings

- 1. Lutz, R., D. Crews, D. Linder, P. Brodstat. A Mirror Image: Reverse Modeling and Its Benefits for Learning the Golf Swing. Science and Golf V, p. 309-314 (2008).
- 2. Kolber, J., **D. Crews**. The Effects of LivinginLine Chiropractic on Psychological and Performance Attributes of Collegiate Golfers. <u>Science and Golf V</u>, p. 344-351 (2008).
- 3. Kahol, K., **D. Crews**. Linguistic Analysis of Golf Movements: Towards Motor Plan Driven Analysis and Instruction. <u>Science and Golf V</u>, p. 387-394 (2008).
- 4. **Crews, D.J.,** R. Lutz, P. Nilsson, L. Marriott. Psychophysiological Indicators of Confidence and Habituation During Golf Putting. <u>Science and Golf III</u>, p.158-165 (1999).
- 5. Linder, D., R. Lutz, **D.J. Crews**, M.R. Lochbaum. Who Chokes and When? Situational and Dispositional Factors Under Pressure. Science and Golf III, p.207-212 (1999).
- 6. Krahenbuhl, G.S., J. Harris, J. Stern, **D.J. Crews**, N. Hubalik. Stress Response and Performance in Female Intercollegiate Golfers. <u>Science and Golf III</u>, p.145-149 (1999).
- 7. **Crews, D.J.** Research Based Golf: From the Laboratory to the Course. In Cochran, A.J. Farrally, M.R. (Eds.) Science and Golf II, p.127-137 (1994).

Abstract Publications

- 1. Adler, C.H., J.N., Caviness, **D. Crews**. The Yips: An electrophysiological Evaluation. <u>Movement</u> Disorders, 17, Suppl 5, (2002).
- 2. **Crews, D.J.**, S. McCormick, M.R. Lochbaum, R. Lutz. A Comparison of Three Audiotape Interventions on Psychological State and Golf Performance. Third World Scientific Congress of Golf Proceedings, (1998).
- 3. **Crews, D.J.**, R. Lutz M.R. Lochbaum. The Effects of Age and Skill on Attentional Patterns (EEG) and Golf Putting Performance. Third World Scientific Congress of Golf Proceedings, (1998).
- 4. Stelmach, G., **D.J. Crews**, P. Martin, P. Cheetham. The Influence of Age and Skill on Variability of Movement During the Golf Putt. <u>Third World Scientific Congress of Golf Proceedings</u>, (1998).

- 5. Hubalik, H.J., G.S. Krahenbuhl, **D.J. Crews**, J.R. Stern. Neurotransmitter Response Patterns to Stress and Sport Performance. <u>Journal of Neurochemistry</u>, <u>S132A</u>, (1991).
- 6. **Crews, D.J.**, D.M. Landers. Cerebral Lateralization of Slow Potential Shift and 40 Hz EEG Activity as it Relates to Golf Putting. Psychophysiology, 27, p.S23 (1990).
- 7. **Crews, D.J.**, D.M. Landers. Relationships Among Three Measures of Brain Activity: Power Spectral EEG, Slow Potential Shift and 40 Hz EEG. Psychophysiology, 27, p.S23 (1990).
- 8. **Crews, D.J.**, D.M. Landers. Heart Rate and Respiration Pattern in the Golf Putt. <u>Medicine and Science in Sports and Exercise</u>, 21(2), p.S60 (1989).
- 9. **Crews, D.J.**, S.H. Boutcher. Results of a Golf-Specific Strength Training Program. <u>International Journal of Sports Medicine</u>, 7(3), p.184 (1986).
- 10. **Crews, D.J.**, S.H. Boutcher. A Physiological Comparison of Men and Women Collegiate Golfers. International Journal of Sports Medicine, 5(3), p.161 (1984).
- 11. **Crews, D.J.**, J. H. Shirreffs, G. Thomas. Physiological Characteristics of L.P.G.A. Tour Players. International Journal of Sports Medicine, 4(2), p.141 (1983).

Popular Magazine Articles

- 1. Yocum, G. D. Crews. How to Train Your Brain. Golf Digest, October, (2010).
- 2. Karbo, K. **D. Crews**. Horse Sense. Golf for Women, May/June, (2008).
- 3. Vickers, J., **D. Crews**. The Quiet Eye. Golf Digest, January, p.100-101 (2004).
- 4. Anderson, L. D. Crews. Golf Science Prize Winner, Golf Magazine, March, p.94-96 (2001).
- 5. Boutcher, S.H., **D.J. Crews**. Mental Skills Can Also Be Learned and Practiced. <u>Academy of Golf Instructors Newsletter</u>, National Golf Foundation, Winter, p.3 (1985).
- 6. **Crews, D.J.**, S.H. Boutcher. Golf Coaches: A Mental Training Program for the Team. <u>Scholastic Coach</u>, August, p.58,59,71 (1985).

Media Recognition

Scientific American Frontier – Brainy Golf – **Debra J. Crews** and Alan Alda produced a show demonstrating the importance of state of mind for golf performance (2002).

NBC Dateline – National Collegiate Choking Championship – **Debra J. Crews,** Daniel Landers and Dennis Murphy produces a show creating stress among golfers and examining the psychophysiological and performance effects (1997).

Golf the Ridiculous Obsession – **Debra J. Crews** was interviewed by DOCTV, a Canadian television show regarding her research in golf (2002).

The Golf Channel – **Debra J. Crews** presented the EEG activity associated with various golf performance as part of "What's in the Bag" and the role of sport psychology for ASU golf as part of "The Coaches Corner" (2003,2004).

Wall Street Journal – **Debra J. Crews** was highlighted for participation in the Mayo Clinic study of the yips in golf (April, 2003).

Books

2013	Ebook - Golf: Energy in Motion. It's not about the ball, it's about possibilities.
2013	The Science of Golf and Life. Co-authored with Candace Pert, Ph.D.
2008	Science and Golf V: Proceedings of the World Scientific Congress of Golf. Edited by Debbie Crews, Ph.D. and Rafer Lutz, Ph.D.
2008	Future of Golfers. Proceedings from a World Scientific Congress of Golf Interim Conference. Edited by Debbie Crews, Ph.D.
2006	Golf: Energy in Motion. It's not about the ball, it's about possibilities.

Presentations

Presentations at Professional Meetings

- 1. Adler, C.H., **Crews, D.,** Kahol, K., Santello, M., Noble, B., Caviness, J. Are the Yips a Form of Golfer's Cramp or Focal, Task-Specific Dystonia? <u>American Academy of Neurology</u>, 2010.
- Adler, C.H., Crews, D., Hentz, J.G., Smith, A.M., Mill, B., J.N. Caviness. Electrophysiologic Evaluation of Yips-Affected and Unaffected Golfers: Evidence for a Task-Specific Dystonia. <u>American Academy of</u> <u>Neurology</u>, 2005.
- 3. Adler, C.H., Caviness, J.N., **D. Crews**. The Yips: An Electrophysiological Evaluation. 7th International Congress of Parkinson's Disease and Movement Disorders, 2002.
- 4. **Crews, D.J.** Harmonizing Mind and Body. <u>World Scientific Congress for Golf IV</u>. St. Andrews, Scotland, July, 2002.
- 5. Vickers, J.N., **D. Crews**. Short-term Memory Characteristics in Golf Putting: New Insights from Gaze and EEG Research. World Scientific Congress for Golf IV. St. Andrews, Scotland, July, 2002.
- 6. **Crews, D.J.**, S. McCormick, R. Lutz, M. Lochbaum. Peripheral Processing, Hypnosis and Music Effects on EEG Activity, Psychological State and Golf Performance. <u>North American Society for Psychology of Sport and Physical Activity</u>. San Diego, CA, June, 2000.
- 7. **Crews, D.J.,** R. Lutz, P. Nilsson, L. Marriott. Psychophysiological Indicators of Confidence and Habituation During Golf Putting. <u>World Scientific Congress for Golf III</u>. St. Andrews, Scotland, July, 1998.

- 8. Linder, D., R. Lutz, **D.J. Crews**, M.R. Lochbaum. Who Chokes and When? Situational and Dispositional Factors Under Pressure. World Scientific Congress for Golf III. St. Andrews, Scotland, July, 1998.
- 9. Krahenbuhl, G.S., J. Harris, J. Stern, **D.J. Crews.** Stress Response and Performance in Female Intercollegiate Golfers. World Scientific Congress for Golf III. St. Andrews, Scotland, July, 1998.
- 10. Lochbaum, M.R., **D.J. Crews.** Training of the Junior Athlete: Psychological Risks and Benefits. <u>Third</u> International Olympic Congress, Atlanta, GA, October, 1995.
- 11. **Crews, D.J.** The Influence of Age on Attentional Patterns in Golf Putting. <u>American College of Sports Medicine</u>, Dallas, TX, May, 1992.
- 12. **Crews, D.J.** Psychophysiology and Learning in Sport and Exercise. <u>National Alliance for Health, Physical Education Recreation</u>, and Dance, Indianapolis, IN, April, 1992.
- 13. **Crews, D.J.**, J.J. Martin, E.A. Hart, A.J. Piparo. The Effectiveness of EEG Biofeedback, Relaxation, and Imagery Training on Golf Putting Performance. <u>North American Society for the Psychology of Sport and Physical Activity</u>, Monterey, CA, June, 1991.
- 14. **Crews, D.J.**, A.J. Piparo, E.A. Hart. Differential Effects of Somatic Arousal and Cognitive Anxiety on Performance. Sport and Exercise Psychology Symposium, College Park, MD, March, 1991.
- 15. Piparo, A.J., **D.J. Crews**, E.A. Hart. Level of Fitness and Performance of a Precision Task. <u>Sport and Exercise Psychology Symposium</u>, College Park, MD, March, 1991.
- 16. **Crews, D.J.**, D.M. Landers. Cerebral Lateralization of Slow Potential Shift and 40 Hz EEG Activity as it Relates to Golf Putting. Society for Psychophysiology, Boston, MA, October, 1990.
- 17. Crews, D.J., D.M. Landers. Relationships Among Three Measures of Brain Activity: Power Spectral EEG, Slow Potential Shift and 40 Hz EEG. Society for Psychophysiology, Boston, MA, October, 1990.
- 18. **Crews, D.J.** Psychophysiology in Applied Sport Psychology. <u>The Association for the Advancement of Applied Sport Psychology</u>, San Antonio, TX, September, 1990.
- 19. **Crews, D.J.**, D.M. Landers. The Relationship Between Attentional Patterns and Performance During the Golf Putt. North American Society for Psychology of Sport and Physical Activity, Houston, TX, June, 1990.
- 20. **Crews, D.J.** The Role of Preparation Routines in Golf Performance. <u>National Alliance for Health,</u> Physical Education, Recreation, and Dance, New Orleans, LA, March, 1990.
- 21. **Crews, D.J.**, D.M. Landers, and S.R. Levin. The Interrelationship of Cardiac Cycle and Golf Performance. North American Society for Psychology of Sport and Physical Activity, Kent, OH, June, 1989.
- 22. **Crews, D.J.**, D.M. Landers, S.R. Levin, and C.M. Caruso. Heart Rate and Respiration Pattern in the Golf Putt. American College of Sports Medicine, Baltimore, MD, May, 1989.
- 23. **Crews, D.J.**, D.M. Landers, P. Karoly. The Relationship Between Effort and Performance During the Golf Putt. <u>National Alliance of Health, Physical Education, Recreation and Dance</u>, Boston, MA, April, 1989.
- 24. **Crews, D.J.**, D.M. Landers, J.S. Skinner. Effects of Dose Amounts of Smokeless Tobacco on Autonomic Change and Performance During Reaction Time and Information Processing. <u>National Alliance of Health</u>, Physical Education, Recreation and Dance, Kansas City, KS, April, 1988.

- 25. **Crews, D.J.**, S.H. Boutcher. Results of a Golf-Specific Strength Training Program. <u>S.W. American</u> College of Sportsmedicine, Las Vegas, NV, November, 1985.
- 26. **Crews, D.J.**, S.H. Boutcher. An Observational Behavior Analysis of L.P.G.A. Tour Players. <u>S.W. District of the AAHPERD Convention</u>, Albuquerque, NM, February, 1985.
- 27. Boutcher, S.H., **D.J. Crews**. Multidimensional Attentional Measures of Collegiate Golfers. <u>North American Society for Psychology of Sport and Physical Activity</u>, Eugene, OR, July, 1984.
- 28. Boutcher, S.H., **D.J. Crews**. Focus of Attention and Putting Performance. <u>National Alliance of Health</u>, Physical Education, Recreation and Dance, Anaheim, CA, April, 1984.
- 29. Boutcher, S.H., **D.J. Crews**. Physiological Attributes of Male and Female Golfers. <u>S.W. American College</u> of Sportsmedicine, Las Vegas, NM, November, 1983.
- 30. **Crews, D.J.**, G. Thomas, J.H. Shirreffs, H.M. Helfrich. Physiological Characteristics of L.P.G.A. Tour Players. <u>S.W. American College of Sportsmedicine</u>, Las Vegas, NM, November, 1982.

Invited Professional Presentations

- 1. **Crews, D.J.** Developing Pressure Players. <u>Golf Magazine Top 100 Teachers</u> Summit, Orlando, FL, January, 2011.
- 2. **Crews, D.J.** Stress and the Theory of Integrated Energy. <u>Exercise and Wellness Conference</u>, <u>Arizona State University</u>, Mesa, AZ, February, 2009.
- 3. **Crews, D.J.** A Theory of Integrated Energy: It All Started with Power Spectrum Analysis. <u>NASPSA</u> Pre-conference Honor of Daniel Landers, Niagara Falls, ON, Canada, June, 2008.
- 4. **Crews, D.J.** The Psychophysiological State for Optimal Learning and Performance. <u>Golf Magazine</u> Top 100 Teachers Summit, Pinehurst, NC, February, 2005.
- Crews, D.J. Coaching for Performance. <u>National Golf Coaches Association</u>, Orlando, FL, Jan. 2004.
- 6. **Crews, D.J.** Winning, Choking and the Yips. <u>Southwest Professional Golf Association</u>, Scottsdale, AZ, Jan. 2004.
- 7. Crews, D.J. Harmonic Golf. Coaching for the Soul III. Tempe, AZ, Dec., 2003.
- 8. **Crews, D.J.** Psychophysiology of the Yips and Strategies for Optimal Performance. <u>Mayo Clinic</u> Sportsmedicine, Rochester, MN, July, 2003.
- 9. **Crews, D.J.** The Role of the Eyes and the Ears in Golf. New York Eye and Ear Infirmary, NY, NY, July, 2003.
- *10.* **Crews, D.J.** The Mental Game of Golf. <u>Golf Magazine Top 100 Teachers</u> Summit, Pinehurst, NC, March, 2003.
- 11. Crews, D.J. Synchronized Golf. Coaching for the Soul II, Tempe, AZ, Dec., 2002.
- 12. Crews, D.J. Solving the Mind Game. Golf Digest, NY,NY, Sept. 2002.
- 13. Crews, D.J. EEG, Choking, and the Yips in Golf Putting. Mayo Clinic, Jacksonville, FL, Dec. 2000.

- *14.* **Crews, D.J.,** A. Thompson. Getting Your "Right Brain" into Your Game. <u>LPGA 50th Anniversary</u> Celebration, St. Augustine, FL, Dec., 2000.
- *15.* **Crews, D.J.** Behavioral, Psychological, and EEG Factors in Golf. <u>Mayo Clinic Sportsmedicine</u>, Rochester, MN, May, 1998.
- *16.* **Crews, D.J.** Attention in Golf: Research and Application. <u>Interdisciplinary Conference of Human</u> Performance, Temecula Creek, CA, March, 1998.
- 17. **Crews, D.J.** Attention in Sport and Following Exercise Among Normal and Learning Disabled Individuals. <u>University College of North Wales</u>, Bangor, Wales, UK, November, 1993.
- 18. Crews, D.J. Attention in Sport and Following Exercise Among Normal and Learning Disabled Individuals. Pennsylvania State University, October, 1993.

Tour Players I Have Worked with at some point in their career.

- 1. Shirley Furlong
- 2. Amy Fruiwith
- 3. Jimin Kang
- 4. Anna Nordqvist
- 5. Azahara Munoz
- 6. Scott Pinckney
- 7. Mina Harigae
- 8. Julie Yang
- 9. Carlota Ciganda
- 10. Jackie Sweeney
- 11. Jennifer Johnson
- 12. Giulia Molinaro
- 13. Tiffany Tavee
- 14. David Gossett
- 15. Aaron Baddeley
- 16. David Ishi
- 17. Jin Park
- 18. Tim Petrovic
- 19. Brady Stockton
- 20. Pia Nilsson
- 21. Tina Tombs
- 22. Pam Wright
- 23. Kelly Leadbetter
- 24. Blair O'Neal
- 25. Laurie Merten
- 26. Charlotte Montgomery
- 27. Steele DeWald
- 28. Alejandro Conizares
- 29. Braxton Martinez
- 30. Jesse Mueller
- 31. Trent Sanders
- 32. Tina Barrett
- 33. Todd Demsey
- 34. Charlie Beljan

Additional tour players who had yips:

- 35. Wendy Ward, LPGA Tour
- 36. Alice Ritzman, LPGA Tour
- 37. Jim Ahern, Champions

- 38. Tom Purtzer, Champions Tour
- 39. Joey Snyder III, PGA Tour
- 40. Niklas Lemke, Gateway, European Tour
- 41. James Byrd, European Tour
- 42. Christian Hills, Gateway
- 43. Shelley Hamlin, Heritage Tour

Additional tour players I have tested:

- 44. Rosie Bartlet
- 45. Missy McGeorge
- 46. Kim Bauer
- 47. Jean Bartholomew
- 48. Mcihelle Bell
- 49. Donna Wilkins
- 50. Debbie Harmon
- 51. Jennifer
- 52. Angela
- 53. Diane

1985-1988: I worked with the US National Archery Team

1996: Attended the 1996 Olympics with an archer I had worked with for 11 years – Judi Adams