

# The Central Institute for Human Performance

Presents

**Stuart McGill, PhD and John Berardi, PhD**

---

## **1st Annual CIHP Sports Performance and Rehabilitation Symposium**

**“Bridging Science and Performance”**

**Saint Louis, Missouri • January 19-20, 2008**

---

This two day course brings two of today's leading consultants and researchers in the field of musculoskeletal rehabilitation, fitness and performance. This is a hands-on, science based course. The presentations are intended to stimulate dialogue and discussion across academic and client-based fields. Practical workshops will allow you to experience the tools you will use Monday morning.

### **Instructors:**

#### **Stuart McGill, PhD**

Dr. McGill is the author of over 200 scientific publications that address the issues of lumbar function, low back injury mechanisms, investigation of tissue loading during rehabilitation programs, and the formulation of work-related injury avoidance strategies. This work has received several awards including the Volvo Bioengineering Award for Low Back Pain Research from Sweden. He has been an invited lecturer at numerous universities, and delivered over 150 invited addresses to various societies around the world. As a consultant to industry, he has provided expertise on assessment and reduction of the risk of low back injury to various government agencies, several corporations, professional athletes and teams, and legal firms. He holds other academic appointments which include the Department of Mechanical Engineering, University of Waterloo; the Institute of Medical Science, University of Toronto; and the Southern California University of Health Sciences.

#### **John Berardi, PhD**

Dr. Berardi earned his doctoral degree from the University of Western Ontario with a specialization in the area of exercise biology and nutrient biochemistry. Prior to his doctoral studies, Dr. Berardi studied exercise science at Eastern Michigan University as well as health science, psychology, and philosophy at Lock Haven University. Dr. Berardi is an adjunct professor of exercise science at the University of Texas at Austin. He is the director of performance nutrition for the Canadian National Cross Country Skiing, Alpine Skiing, Canoe/Kayak and Bobsleigh/Skeleton teams and is a performance nutrition consultant to a number of elite level individual athletes, sports teams, and Olympic training centers. Dr. Berardi has authored or co-authored 5 books and has published over 200 popular press articles for magazines like Men's Health, Men's Fitness, Women's Health, Muscle and Fitness, and Testosterone.

**Building the Ultimate Back: From Rehabilitation to High Performance**

**Stuart McGill, PhD**

1. **Building the foundation:** Dispel the myths about how the spine works and becomes injured. Anatomical, biomechanical and motor control perspectives are provided to setup the clinical approaches. Determine the variables that both cause and exacerbate back troubles, together with some characteristics that facilitate rehabilitation and performance training.
2. **Interpreting patient presentation:** Understand aberrant motion and motor patterns and possibilities for corrective exercise. Provocative tests and their mechanical basis provide guidance for optimal exercise design. Specific markers will predict who will progress. These must be addressed at the outset of a program to optimize success.
3. **Rehabilitation exercise: biomechanics and clinical practices:** Many exercises prescribed to low back patients have not been subjected to scientific examination. This component of the course attempts to quantify and rank exercises for their spine loading, muscle usage and stabilizing potential. Algorithms for choosing the best exercise approach for each individual are provided. Specific perturbed motion and motor patterns are shown together with some appropriate corrective exercise. Nuances of form and technique are discussed that either enhance or inhibit clinical objectives.
4. **Training for performance:** Training the back for performance (either athletic or occupational) requires different approaches and objectives than training to fulfill rehabilitation objectives. Some of the techniques developed in our work with world class athletes will be introduced and discussed within the context of valid mechanisms and evidence. These include the progressions from establishing motor control patterns, through to stability, endurance, strength, power and agility.

**Applied Sports Nutrition and Performance**

**John Berardi, PhD, CSCS**

5. **How the body balances energy intake and expenditure:** Energy flux; the key to nutritional success -energy flux science -the exercise component and exercise balance - athletes vs. regular joes –the regulation of energy expenditure and energy intake
6. **Nutritional individualization:** Basic nutrition without counting calories -why basic strategies don't always work -what to do when they don't work -individualization by body type –genetic differences and nutritional genomics
7. **Exercise basics:** Exercise preparation –program balance –resistance training, energy system work, cardio work, and recovery exercise
8. **Troubleshooting body comp. and performance concerns:** Program troubleshooting –injury recovery -question and answer

Limited Seats Available

**Location: Saint Louis, Missouri, USA**

**Central Institute for Human Performance (CIHP)**

1099 Milwaukee Street, Suite 150, St. Louis, MO 63122

**Dates: Saturday, January 19, 2008 (8:30am - 4:30pm)**

**Sunday, January 20, 2008 (8:30am - 4:30pm)**

**Price: Physician Rate: \$475 before Dec. 15, \$575 after Dec. 15**

**Student/ Non-physician Rate: \$325 before Dec. 15, \$425 after Dec. 15**

**(includes breakfast and all materials)**

## Registration (*Limited Enrollment*):

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

Phone: Home: \_\_\_\_\_ Cell: \_\_\_\_\_

Email: \_\_\_\_\_

Mail Registration with check made payable to CIHP at the above address.

Credit Card Payment by fax to CIHP (314-821-9889) or call (314-822-1001)

Credit Card # (Visa or MC): \_\_\_\_\_ Exp Date: \_\_\_\_\_

3 Digit Security #: \_\_\_\_\_ Signature: \_\_\_\_\_

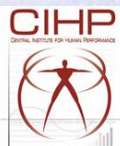
---

**Hotel Information:** Best Western Kirkwood Inn  
1200 S Kirkwood Road, Saint Louis, Phone: 314-821-3950  
Located less than an a mile from CIHP  
(Group Rate listed under *CIHP*)

There are several other hotels located within 20 minutes of CIHP as well as near Lambert International Airport. CIHP is located approximately 20 miles from the airport.

For more information or to register by phone please contact Terri at (314) 822-1001 or [administration@cihp.com](mailto:administration@cihp.com).

---



The Central Institute for Human Performance

