#### **Outline**

#### **Gait Analysis and Screening**

Implement motion capture - Dartfish, Qualysis, Video

Strategies to Identify:

**Faculty Mechanics** 

Muscular weakness

Poor flexibility

#### Assessments to Quickly Detect Issues: The **Running Performance Model**

Physiological factors responsible for running performance

Biomechanical factors responsible for running performance

Nutritional factors responsible for running performance

#### **Run Less, Not Train Less: The FIRST Program**

Apply to runners of all ages and abilities: 3 plus 2 program

Quality over quantity

Training with purpose

Functional strength training timeline

Flexibility exercises

Goal setting and prediction tables Training programs for your clients

Determining workout intensity

#### **Apply Principles of Training to Prevent Injury**

Progressive overload Specificity Individual differences Law of diminishing returns

Reversibility

#### **Big Questions Answered! Tackle the Most Common Concerns**

- Heel-striking
- Hamstring injury
- Arthritis
- Injury identification
- Barefoot running
- Running form
- Orthotics
- Running shoes
- Running frequency
- Weekly mileage
- Running fast
- · Body weight
- Stretching
- Strength training
- Cross-training
- Running surface

#### Safe Returns: Getting Runners Back in Action Post-Injury

When is enough rest enough? Tackling recurring injuries

Best practices to reduce risk of re-injury

## Youth Forgives Many Sins - Work with Aging

What happens to performance? Which biological factors affect running? Effects of psychological, social, and cultural

Alternatives and solutions for the aging runner The 7-Hour workout week

### **Live Webinar Schedule**

(Times listed in Central)

8:00 Program begins

11:50-1:00 Lunch Break

A more detailed schedule is available upon request

**4:00** Program ends

There will be two 15-min breaks (mid-morning & mid-afternoon). Actual lunch and break start times are at the discretion of the speaker.

## **Objectives**

- 1. Assess the principles of training.
- 2. Examine physiological determinants of running performance.
- 3. Articulate the FIRST "3plus2" training program.
- 4. Design an effective training program based on scientific principles.
- 5. Utilize cross-training effectively to supplement running.
- 6. Analyze running gait for recommending prehab and rehab stretches and strength training exercises.
- 7. Evaluate how aging affects running performance.
- 8. Utilize the 7-Hour Workout Week to enhance fitness while supporting healthy aging.

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# The Art and Science of the Perfect Run

## Reduce Injuries and Increase Performance

#### **Learn from the Legends!**

Runner's World magazine "supercoach" Dr. Bill Pierce and 12-time Ironman Dr. Scott Murr, Co-authors of two books featured in Runner's World



# The Art and Science of the Perfect Run

Reduce Injuries and Increase **Performance** 

## **LIVE Interactive Webinar** Friday, October 1, 2021

**BONUS!** – Registration includes FREE on-demand access for 3 months.

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## The Art and Science of the Perfect Run

#### Reduce Injuries and Increase Performance

Whether you are working with 5K or marathon runners, they are often a different breed. Taking time off? No way. They push through injuries, hoping to beat the clock in their next race.

The high-volume training schedule of runners often makes them frequent flyers in your clinic. They always seem to have a nagging injury that never quite goes away. You need a way to quickly identify and correct their dysfunctional movement patterns so that they can continue to do what they love.

Drs. Pierce and Murr will demonstrate innovative techniques to identify and tackle the most common running injuries. Backed by their research in the FIRST lab, you will learn today's best strategies for working with runners.

This seminar will feature motion capture techniques that will help you to target biomechanical inefficiencies and introduce corrective exercises. By doing so, you can reduce the risk of injury in this physically demanding sport. This seminar is the bridge between exercise physiology, biomechanics and performance. Learn strategies that will ultimately lead to fewer injuries and better performance for your runners – all while limiting over training and reducing injury.

#### **Target Audience:**

Physical Therapist • Physical Therapist Assistants • Occupational Therapists

Occupational Therapy Assistants • Athletic Trainers • Personal Trainers • Exercise Physiologists

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## **Meet Your Speakers**

Dr. Bill Pierce and Dr. Scott Murr, professors in the health sciences department at Furman University (Greenville, SC), are the co-founders of the Furman Institute of Running and Scientific Training (FIRST). FIRST promotes running as a healthy physical activity by providing training based on scientific principles and research. They are innovators in the field of running performance and have helped thousands of runners best their PRs and become lifelong runners. Pierce and Murr are co-authors of Runner's World Run Less, Run Faster (2012) and Runner's World Train Smart, Run Forever (2017).

**Bill Pierce** chaired the health sciences department at Furman University for three decades. He and FIRST have been featured in articles in the *The Wall Street Journal, The New York Times, Business Week, Men's Journal, Runner's World* and many other newspapers and magazines across the country. Pierce, listed as one of 10 marathon "supercoaches" by *Runner's World* magazine, has made hundreds of presentations on fitness, wellness and running. As an intercollegiate athlete, he played on nationally ranked basketball teams and was a successful half-miler on the track team. He has captured many agegroup awards in his 250 road races and 42 marathons, finishing the Boston Marathon in five different decades.

#### Speaker Disclosures:

Financial: William Pierce professor at Furman University. He is an author for Penguin Random House and receives royalties. Dr. Pierce receives a speaking honorarium from PESI, Inc.

Non-financial: William Pierce has no relevant non-financial relationship to disclose.

**Dr. Scott Murr,** assistant professor in the health sciences department joined the Furman faculty in 1998. Dr. Murr has served as the director of the Furman Fitness Center and Aquatics for 15 years and is also the director of the Molnar Human Performance Laboratory. Scott Murr is a 35-year veteran in the sport of triathlon and has been running marathons even longer. From marathons to cycling centuries to triathlons, Scott has competed in over 300 endurance events. Scott is a 12-time Ironman Triathlon finisher, having competed in Ironman Europe, Ironman Canada, Ironman USA with six finishes at the Ironman Triathlon World Championship in Kona Hawaii.

#### Speaker Disclosures:

Financial: Scott Murr is an assistant professor at Furman University. He is an author for Penguin Random House and receives royalties. Dr. Murr receives a speaking honorarium from PESI, Inc.

Non-financial: Scott Murr has no relevant non-financial relationship to disclose

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