

## Day One

|       |       |                                                                                                                                                                                                                                                    |
|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:00  | 8:15  | <b>Introduction / Overview</b>                                                                                                                                                                                                                     |
| 8:15  | 9:00  | <b>Lower Extremity Anatomy Review</b> <ul style="list-style-type: none"> <li>• Subtalar joint as the key stone to the lower extremity</li> <li>• Relate principles of foot and ankle anatomy to running biomechanics</li> </ul>                    |
| 9:00  | 10:30 | <b>Biomechanics of Running</b> <ul style="list-style-type: none"> <li>• Mechanical efficiency</li> <li>• Ground reaction forces</li> <li>• Running posture</li> <li>• Foot strike patterns</li> </ul>                                              |
| 10:30 | 10:45 | <b>Break</b>                                                                                                                                                                                                                                       |
| 10:45 | 12:00 | <b>Epidemiology of Common Running Injuries</b> <ul style="list-style-type: none"> <li>• Impact forces</li> <li>• Over pronation</li> <li>• Running surfaces</li> <li>• Hip/pelvic control</li> </ul>                                               |
| 12:00 | 1:00  | <b>Lunch (on your own)</b>                                                                                                                                                                                                                         |
| 1:00  | 2:00  | <b>Runners Biomechanical Examination</b> <ul style="list-style-type: none"> <li>• Evidence based lower extremity evaluation</li> <li>• Hip, knee, foot and ankle evaluation</li> <li>• Open chain</li> <li>• Closed chain/dynamic tests</li> </ul> |
| 2:00  | 3:30  | <b>Biomechanical Exam (Lab)</b> <ul style="list-style-type: none"> <li>• Subtalar neutral assessment</li> <li>• WB/NWB examination</li> <li>• Foot and ankle exam</li> <li>• Functional tests</li> <li>• Flexibility testing</li> </ul>            |
| 3:30  | 3:45  | <b>Break</b>                                                                                                                                                                                                                                       |
| 3:45  | 4:45  | <b>Shoes, Orthotics and Tape</b> <ul style="list-style-type: none"> <li>• Running shoe design and prescription</li> <li>• Determining need for Orthotics</li> <li>• Over the counter vs custom Orthotics</li> <li>• Use of taping</li> </ul>       |
| 4:45  | 6:00  | <b>Taping (lab)</b> <ul style="list-style-type: none"> <li>• Modified low-dye arch taping</li> <li>• Plantar fasciitis taping</li> <li>• Achilles tendonitis taping</li> </ul>                                                                     |
| 6:00  | 6:15  | <b>Review and Questions</b>                                                                                                                                                                                                                        |

## Day Two

|       |       |                                                                                                                                                                                                                                                          |
|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:00  | 9:00  | <b>Principles of Video Gait Analysis for Runners</b> <ul style="list-style-type: none"> <li>• Equipment</li> <li>• Video image software</li> <li>• Common errors</li> <li>• Observation views</li> <li>• Key factors</li> </ul>                          |
| 9:00  | 10:00 | <b>Running Video (Lab)</b> <ul style="list-style-type: none"> <li>• Systematic, progressive examination of cases</li> <li>• Global vs joint-specific measures</li> <li>• Key factors to consider</li> <li>• Importance of patient interaction</li> </ul> |
| 10:00 | 10:15 | <b>Break</b>                                                                                                                                                                                                                                             |
| 10:15 | 11:00 | <b>Age Related Changes in Running Form</b> <ul style="list-style-type: none"> <li>• Tissue physiology and mechanics</li> <li>• Altered running forms</li> <li>• Changes in injury likelihood and locations</li> </ul>                                    |
| 11:00 | 12:00 | <b>Evidence Based Treatment of Common Running Injuries</b> <ul style="list-style-type: none"> <li>• Achilles tendonitis vs. tendinosis</li> <li>• Plantar heel pain</li> <li>• Peroneal tendonitis</li> </ul>                                            |
| 12:00 | 1:00  | <b>Lunch (on your own)</b>                                                                                                                                                                                                                               |
| 1:00  | 2:00  | <b>Evidence Based Treatment of Common Running Injuries</b> <ul style="list-style-type: none"> <li>• Medial Tibial Stress Syndrome</li> <li>• Patellofemoral Syndrome</li> <li>• Iliotibial Band Syndrome</li> </ul>                                      |
| 2:00  | 2:30  | <b>Treatment of Adverse Running Mechanics</b> <ul style="list-style-type: none"> <li>• Functional strength exercises</li> <li>• Stretching and joint mobility</li> <li>• Carry-over to running form</li> </ul>                                           |
| 2:30  | 3:00  | <b>Running Volume: Before and After Injury</b> <ul style="list-style-type: none"> <li>• Volume and intensity</li> <li>• Speed-work</li> <li>• Return-to-running</li> </ul>                                                                               |
| 3:00  | 3:30  | <b>Summary and Questions</b>                                                                                                                                                                                                                             |



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# The Running Course®

*The Next Step*



This course is 15 contact hours/1.5 ceus/15 ccu's

18 contact hours/1.8 ceu's for therapists licensed in Florida, New York, Illinois, or the District of Columbia

Certificates of attendance for CEU verification are provided after successful completion of the course.

FL OT Provider # 50-1442 | BOC Provider #P2047  
IL Provider #216000074 | AOTA Provider # 4487  
CA Approval #PTNAS-201444

**Presented by**  
Keith Christianssen, PT, MTC

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**PT, OT, PTA and ATC -**  
**Continuing Education Course**

# About The Educator

**Keith Christianssen, PT, MTC,** attended San Diego State University, where he majored in Athletic Training and earned an Athletic Training Certification. Keith went on to obtain his degree in Physical Therapy from Northwestern Medical School in Chicago, and a Certification in Manual Therapy from the University of St. Augustine in Florida. He is also a certified coach through USA Track & Field, is level II tactical certified in TRX training, and is working on a tactical strength and conditioning certification. For the past 20 years, Keith has taught nationally and internationally on the topics of joint mobilization, athletic training skills, biomechanics of the lower extremity, running, and orthotics fabrication.

Keith has written articles for several magazines, been a contributing author for a physical therapy text book, and currently writes a fitness article for a several publications. He is also a consulting with a medical device and development company, and with the leading rehabilitation taping company. Keith's clinical experience includes being an athletic trainer for two colleges, the assistant athletic trainer for an IHL hockey club, the head athletic trainer for an RHI hockey club, and has worked closely with athletic trainers from the NFL, MLB, MISL and NHL teams to maximize the players' rehabilitation. Keith has treated amateur athletes of all ages and professional athletes from most sports to include ballet, golf, and America's Cup sailing. Keith has also joined the sports medicine pool for the United States Olympic Committee, and has helped train some of our countries finest athletes at the Olympic Training Center in Colorado Springs, Colorado.

Keith's patients range from a 2 year old with a club foot to and 89 year old gentleman who wants to continue walking around the block with his dog. Keith is also currently working with several Iron-man finisher, ultra-marathoners, marathoners, and triathletes to help them run as fast and efficiently as possible.

# Why You Should Attend This Course

This two day **advanced running course** applies the most current optimal evidence based information for the evaluation and treatment of running injuries. Information is delivered through a format that combines interactive lecture and comprehensive laboratory sessions. Analysis of the biomechanics of running through physical evaluation and video analysis will prepare the course participant in the clinical decision making process required to develop comprehensive treatment programs. Specific strategies are presented in determining how to identify key elements in video gait analysis and how to apply findings to improve running and gait. In addition, time is spent on types of video analysis equipment and software, and how to implement these technologies into your practice. Course emphasis will also be placed on running mechanics, performance, and how to identify potential injuries through mechanical analysis. Once injuries are identified, discussion will focus on biomechanical and functional approaches to rehabilitation. Current evidence based information is provided on foot taping, shoe design, over the counter arch supports and determining the need for the correct orthotics. Age related changes, tissue physiology and abnormal mechanics are discussed to help the clinician through a process of differential diagnosis to develop appropriate patient specific solutions. Case studies will be presented throughout the two days to exhibit the concepts and applications. Each participant will take an active role throughout this course to discuss and apply the information provided. The main goal of this course is to enable therapists to feel confident in a comprehensive approach allowing them to achieve superior outcomes when they return to their clinics, ready to implement and market a successful running program.

## Course Objectives

Upon completion of this course, participants will be able to:

- Describe the mechanical factors that influence running form and performance.
- Describe the current evidence regarding running impacts and foot pronation as they relate to running injuries.
- Understand the individualistic nature of the running form and the need to avoid common generalizations in injury management.
- Conduct a thorough physical examination of an injured runner incorporating aspects of the tissue stress theory.
- Make appropriate running shoe recommendations and determine the need for foot orthotics.
- Utilize and perform common foot and ankle taping techniques as part of the clinical decision making process.
- Determine the proper equipment to conduct a video running analysis and identify factors that can influence its accuracy.
- Perform a systematic and comprehensive video analysis of an individual running.
- Understand how to integrate findings from the physical examination and video analysis to determine appropriate injury management.
- Develop rehabilitation exercise programs for common running-related injuries, such as patellofemoral pain and iliotibial band syndrome.
- Describe the benefits of running form modification as part of the rehabilitation strategy.
- Understand the biomechanical changes associated with the gait of older runners and the resulting influence on treatment considerations.
- Identify training-related risk factors for running injuries and an appropriate return-to-running program.

## Registration Form

Name

Home

Address

City

Credit Card

Exp.date

e-mail (required)

Location of attendance

Profession

State

Zip

Home Phone (required)

Home Phone (required)

Home Phone (required)



Send tuition to: North American Seminars, Inc.  
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All cancellations must be submitted with written notice and received 14 days prior to the course date. Refunds and transfers minus the deposit fee of \$75.00 are provided until 14 business days prior to the course date. No refunds or transfers will be issued if notice is received after 14 days prior to the course date. North American Seminars, Inc. reserves the right to cancel any course and will not be responsible for any charges incurred by the registrant due to cancellation. A full course tuition refund will be issued if NAS cancels the course. NAS reserves the right to change a course date, location or instructor. No refund will be issued if course is in progress and is interrupted by an Act of War or God or issue beyond our control. NAS, Inc. will not be responsible for any participant expenses other than a course tuition refund for course cancellations.