



UNIVERSITY OF
BATH

Custom Orthotic Insoles Technology Forum

An event for the open discussion of digital technology
19th & 20th May 2011, University of Bath, UK

Introduction

The Orthotic Technology Forum is the first event to focus on discussing new technologies and processes designed to assist Practitioners and Laboratories in prescribing and manufacturing Custom Orthotic Insoles. This event has also been approved by BAPO (British Association of Prosthetists and Orthotists) as a CPD event.

Our guest speakers are leading the way in developing and using different types of technology, from hardware devices to help measure biomechanical features, pressure and anatomical form, CAD/CAM tools for plasterless manufacture, as well as new ideas for increasing productivity and reducing manufacturing costs.

What subjects will be covered?

This is a unique opportunity for you to see a wide range of innovative technologies from a varied range of organisations, including:

- **Larry Huppin , Medical Director of Prolab Orthotics (USA)**
Evidence based medicine: Foot imaging for custom functional foot orthoses
- **Craig Payne, Senior Lecturer, Latrobe University (Australia)**
Cost benefit comparison of plaster casts and optical scans for the manufacture of foot orthoses
- **Clifton Bradeley, Owner, SUB 4 (UK)**
New digital biomechanical evaluation devices and related theories
- **Craig Tanner, Head Podiatrist, Aspetar Orthopaedic and Sports Medicine Hospital (Qatar)**
Digital Orthotic System - Exploring the possibilities in a Sports Medicine Service
- **Stephen Newman, Professor of Innovative Manufacturing Technology, University Of Bath (UK)**
Cryogenic machining of soft material orthotics
- **Phil Wells, Technical Support Manager, Salts TechStep (UK)**
Advanced CAD/CAM for custom Orthotic Insole Design
- **Dan Swatton, Healthcare Technical Product Manager, Delcam Plc (UK)**
Workflow Management – web based orthotic order management
- **Lloyd Thomas, Owner, CycleFit (Germany)**
Digital technologies for professional cyclist insoles
- **Adrian Bowyer, Founder of the RepRap Project, University Of Bath (UK)**
Low Cost 3D Printing of custom insoles
- **Dr Roozbeh Naemi, Senior Research Officer, Staffordshire University (UK)**
Mathematical modelling to help design custom shoe soles and insoles
- **Francis Barrett , ALGEOS (UK)**
Materials Technology
- **Michel Babin, President, TechMed 3D Inc. (Canada)**
Converting the clinician to CAD/CAM; a step by step approach
- **Greg Armstrong, President of sales and marketing, Mile High Orthotics (USA)**
Going digital - are you ready?



* Content of this event may vary due to personal circumstances of the speakers.

Why should you attend?

You will see technologies already being used successfully by orthotics laboratories around the world alongside emerging technologies and research projects giving an insight into custom orthotic advances over the next few years.

The event is educational and will expose attendees to new and emerging technologies including hands on experience with a tour of University of Bath's machining facilities as well as contribute towards your continued professional development.

There will also be an opportunity for delegates and speakers to network during the sessions and breaks to share experiences, as well as giving you time to explore the Roman Spa Town of Bath with us.

Topics for discussion will include:

- How can liquid nitrogen help you to manufacture ultra thin Polyurethane and EVA custom orthotic insoles?
- Can digital scanners completely replace the cast and foam box process?
- Can CAD/CAM really deliver the efficiency gains it claims?
- Can layered based (additive) manufacturing be used to make insoles?
- Is it really possible for an orthotics laboratory to become completely paperless?

Who should attend?

- Laboratory Managers
- Innovative Podiatrists / Orthotists
- Anyone interested in improving the efficiency and profitability of their laboratory or clinic



Why Bath?

The University of Bath is pioneering research into advanced manufacturing technologies and their application in the custom orthotic insoles industry. The Roman Spa town of Bath is a beautiful traditional English town which was the setting for many of Jane Austen's famous novels with many attractions for you to visit during your stay. See www.visitbath.co.uk for more information and to plan your visit.

How to register your place

There will be a fee of £50.00 for delegates attending this event. This cost includes pre-dinner drinks at the Roman Baths and a 3 course meal on [The Terrace](#) overlooking the ancient baths. If you would like to attend this event, please register and pay online at www.orthotics-cadcam.com/event or contact Hannah Harlock at hlh@delcam.com

Once you have successfully registered for the event, you will be sent confirmation along with details of hotels that we have negotiated special rates with.

Hosted by:



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Approved event



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Custom Orthotic Insoles Technology Forum

Programme

Thursday 19th May

9.30 Registration & Coffee

10.30 **Welcome & Introductions**

Kevin Edge - Deputy Vice Chancellor, University of Bath

Stephen Newman - Professor of Innovative Manufacturing Technology, University of Bath

Chris Lawrie - Healthcare Product Manager, Delcam plc

11.00 **Technology in Sports Podiatry**

Clifton Bradeley, Owner, SUB 4 (UK)

New digital biomechanical evaluation devices and related theories

Lloyd Thomas, Owner, CycleFit (Germany)

Digital technologies for professional cyclist insoles

Craig Tanner, Head Podiatrist, Aspetar Orthopaedic and Sports Medicine Hospital (Qatar)

Digital Orthotic System - Exploring the possibilities in a Sports Medicine Service

12.30 Questions and Answers

12.45 Lunch – Claverton Rooms, University of Bath

2.00 **SCAN / CAD / CAM**

Larry Huppin , Medical Director of Prolab Orthotics (USA)

Evidence based medicine: Foot imaging for custom functional foot orthoses

Craig Payne, Senior Lecturer, Latrobe University (Australia)

Cost benefit comparison of plaster casts and optical scans for the manufacture of foot orthoses

Dan Swatton, Healthcare Technical Product Manager, Delcam Plc (UK)

Workflow Management – web based orthotic order management

3.30 Questions and Answers

3.45 Coffee

4.15 **SCAN / CAD / CAM**

Dr Roozbeh Naemi, Senior Research Officer, Staffordshire University (UK)

Mathematical modelling to help design custom shoe soles and insoles

Michel Babin, President, TechMed 3D Inc. (Canada)

Converting the clinician to CAD/CAM; a step by step approach

5.15 Questions and Answers

5.30 Close

* Content and timings of this event may vary due to personal circumstances of the speakers.

Thursday 19th May - Evening

Evening meal at the Roman Baths (included in your registration fee)

7.15pm Pre Drinks Reception in 'The Roman Baths'

At the heart of the World Heritage city and dating back nearly 2000 years, enjoy drinks beside the steaming waters in this magical setting.

8.00pm Dinner on The Terrace

A 3 course meal on the Terrace overlooking the Great Bath.



Friday 20th May

9.30 Manufacturing Technology

Stephen Newman, Professor of Innovative Manufacturing Technology, University Of Bath (UK)
Cryogenic machining of soft material orthotics

Adrian Bowyer, Founder of the RepRap Project, University Of Bath (UK)
Low Cost 3D Printing of custom insoles

Francis Barrett, ALGEOS (UK)
Materials Technology

11.00 Questions and Answers

11.15 Coffee

11.45 Summary

Phil Wells, Technical Support Manager, Salts TechStep (UK)
Advanced CAD/CAM for custom Orthotic Insole Design

Greg Armstrong, President of sales and marketing, Mile High Orthotics (USA)
Going digital - are you ready?

12.45 Questions and Answers

1.00 Event Close

Stephen Newman - Professor of Innovative Manufacturing Technology, University of Bath
Chris Lawrie - Healthcare Product Manager, Delcam plc

1.15 Lunch

2.00 Exhibition / Demonstration – Hands on - The full CAD/CAM process in action

3.30 Coffee and Close



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