

Thomas Daniel

PIZIALI & ASSOCIATES BIOENGINEERING AND ACCIDENT ANALYSIS

Thomas E. Daniel

Mr. Daniel is an expert in the areas of biomechanics, injury analysis, occupant kinematics, and accident reconstruction. He has expertise in dynamic computer simulation of human movement (i.e., MADYMO), experimental design, testing and analysis, and non-linear finite element analysis. Mr. Daniel has worked closely with orthopaedic surgeons in biomechanical analysis of spine and joint loading and has performed physical testing and computer simulations to address orthopaedic-related research. He has been a reviewer for the Society of Automotive Engineers and the American Society of Biomechanics, and his research has been published in peer-reviewed scientific journals and presented at national and international research conferences.

Background and Professional Honors

B.S. (Mechanical Engineering), Virginia Tech

M.S. (Mechanical Engineering, with minor in Biomedical Engineering), University of Minnesota

Managing Engineer, Piziali & Associates, Inc.

Technical Consultant, MSC Software Corporation

Research and Project Engineer, Biomechanics Research Laboratory, Allegheny University of the Health Sciences

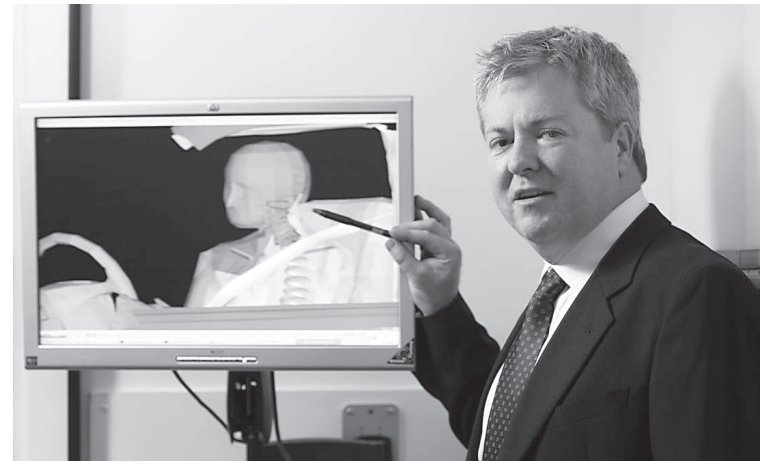
Graduate Research Assistant, Department of Orthopaedic Surgery, University of Minnesota

Research Engineer, AngeLase, Inc.

Tau Beta Pi (National Honor Society for Engineers)

Graduated *magna cum laude* in Mechanical Engineering, Virginia Tech

Graduated *summa cum laude*, University of Minnesota



Professional Affiliations

Reviewer, Society of Automotive Engineers

Reviewer, American Society of Biomechanics

Society of Automotive Engineers (SAE)

American Society of Mechanical Engineers (ASME)

American Society of Biomechanics (ASB)

Selected Publications and Presentations

T.E. Daniel, "A Methodology for Determining Injury Causation in Accidents," Invited Presentation, Mechanical Engineering Graduate Dynamics Lecture, Stanford University, Stanford, CA, 2003.

T.E. Daniel and D.D. Anderson, "Finite Element Simulation of Displaced Intra-Articular Distal Radius Fractures," Summer Meeting of the Bioengineering Division of the American Society of Mechanical Engineers, 1997.

B.R. Deshpande, T.E. Daniel, and D.D. Anderson, "A Three-Dimensional Contact-Coupled Finite Element Model of the Radiocarpal Joint," Summer Meeting of the Bioengineering Division of the American Society of Mechanical Engineers, 1997.

T.E. Daniel, M.E. Baratz, and D.D. Anderson, "A Technique for Assessing Thumb Motion Following Carpometacarpal Arthroplasty," Orthopaedic Research Society, 1997.

B. Petinaux, T.E. Daniel, M.E. Baratz, and D.D. Anderson, "Thumb Motion in a Normal Population," American Society of Surgery for the Hand, 1996.

J.D. Richman, T.E. Daniel, P.L. Miller, D.D. Anderson, and R.E. Douglas, "Biomechanical Evaluation of Internal Fixation Methods Using a Porcine Model," *Spine*, 20:2192-2197, 1995.

D.D. Anderson and T.E. Daniel, "A Contact Coupled Finite Element Analysis of the Radiocarpal Joint," *Seminars in Arthroplasty*, 6:30-36, 1995.

T.E. Daniel and D.D. Anderson, "A Three-Dimensional Finite Element Model of Generic Joint Contact," Summer Meeting of the Bioengineering Division of the American Society of Mechanical Engineers, 1995.

J.D. Richman, T.E. Daniel, P.L. Miller, D.D. Anderson, and R.E. Douglas, "Biomechanical Evaluation of Internal Fixation Methods Using a Porcine Model," Cervical Spine Research Society, 1994.

T.E. Daniel, P.L. Miller, D.D. Anderson, and J.D. Richman, "Application of Axial Torsional and Sagittal Bending Loads in In-Vitro Spine Testing," American Society of Mechanical Engineers, 1994.

J.D. Des Jardins, T.E. Daniel, M.E. Baratz, D.D. Anderson, and J.E. Imbriglia, "Changes in Carpal Kinematics Due to Displaced Fractures of the Distal Radius," Second World Congress of Biomechanics, 1994, and American Society of Mechanical Engineers, 1994.

T.E. Daniel, J.D. Des Jardins, M.E. Baratz, D.D. Anderson, and J.E. Imbriglia, "Carpal Kinematics in Displaced 'Die-Punch' Fractures of the Distal Radius," International Hand and Wrist Biomechanics Symposium, 1995, American Society of Biomechanics, 1994, and American Society of Surgery for the Hand, 1994.

M.J. Schendel, M.B. Dekutoski, J.W. Oglivie, and T.E. Daniel, "Altered Adjacent In Vivo Disc Load after Long Instrumentation of the Lumbar Spine," Scoliosis Research Society, 1994.

M.B. Baratz, D.D. Anderson, J.D. Des Jardins, T.E. Daniel, and F. Wroblewski, "Pathomechanics of Displaced Intra-Articular Fractures of the Distal Radius," American Association of Orthopaedic Surgeons, 1994.