

Curriculum Vitae for Alan T. Dibb, Ph.D., P.E.

Specialized Professional Competencies

- Biomechanical analysis of traumatic events to evaluate the severity and mechanisms of injury
- Occupant kinematics analysis to assess movement and loading during motor vehicle crashes, including frontal, rear-end, side, and rollover collisions
- Vehicle component and restraint design analysis to determine effect on human injury potential
- Human surrogate testing and analysis

Academic Credentials

- Doctor of Philosophy in Biomedical Engineering, Duke University, 2011
- Bachelor of Science in Mechanical Engineering, Brigham Young University, 2003

Licenses and Certifications

- Licensed Professional Engineer, Arizona, #58581
- Certified Child Passenger Safety (CPS) Technician, #T715315
- Northwestern University Center for Public Safety, Traffic Crash Reconstruction, August 2011

Professional Experience

- Senior Engineer, Carr Engineering, Inc., 2024 to Present
- Managing Engineer, Exponent, Inc., 2016 to 2023
- Associate/Senior Engineer, Exponent, Inc., 2011 to 2016
- Research Associate, Injury and Orthopaedic Biomechanics Laboratory, Duke University, 2003 to 2011

Areas of Research

- Occupant kinematics and injury response in various modes of crash loading
- Evaluations of automotive restraints
- Performance of laminated glass
- Cadaveric and computational studies of the head and neck in response dynamic frontal deceleration, compression, and tension modes of crash induced loading
- Injury tolerance and kinematics of the adult and pediatric head and neck
- Biofidelity of crash test dummies

Professional Associations

- Society of Automotive Engineers (SAE)
- American Society of Mechanical Engineers (ASME)
- American Society of Biomechanics (ASB)