

## **ALFRED P. BOWLES, II, MD**

### **CURRICULUM VITAE**

#### **EDUCATION**

MD	Indiana University School of Medicine Indianapolis, Indiana	1990
BSME	Mechanical Engineering Purdue University West Lafayette, Indiana	1986

#### **POST GRADUATE STUDIES**

Internship in Surgery University of Kansas Medical Center Kansas City, Kansas	1990-1991
Residency in General Surgery University of Kansas Medical Center Kansas City, Kansas	1991-1995

#### **SELECTED CONTINUING EDUCATION COURSES**

Traffic Accident Reconstruction Northwestern University Traffic Institute Evanston, Illinois	1996
Fundamentals of Sensor Design for Automotive Airbag Systems SAE International Seminars Detroit, Michigan	1997
Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation Association for the Advancement of Automotive Medicine Tempe, Arizona	1998

Biomechanics of Impact Trauma Association for the Advancement of Automotive Medicine Captiva Island, Florida	1998
Aerospace Medicine Primary Course I	1998
Aerospace Medicine Primary Course II	1999
Aerospace Medicine Primary Course III USAF School of Aerospace Medicine Brooks AFB, Texas	2000
Advanced Trauma Life Support Student Course American College of Surgeons Department of Family and Community Medicine Tulane University, New Orleans, Louisiana	1999
Defense Medical Readiness Training Institute Fort Sam Houston, Texas	2003
Wilford Hall USAF Medical Center Lackland AFB Texas	2007
Defense Medical Readiness Training Institute Instructor Fort Sam Houston, Texas	2011-2012
Trauma Refresher Course for Surgeons Wilford Hall US Air Force Medical Center Lackland AFB, Texas	2001
Expeditionary Medical Support Basic Course USAF School of Aerospace Medicine Brooks AFB, Texas	2004
Space Fundamentals Course USAF Advanced Space Operations School Colorado Springs, Colorado	2010

**PROFESSIONAL EXPERIENCE**

Consultant	1995-Present
Principal Consultant and Director Biodynamic Research Corporation San Antonio, Texas	2010-Present
Flight Surgeon United States Air Force Reserve HQ USAF Space Command	2008-Present

Peterson AFB, CO	
General Surgeon	1995-2008
Flight Surgeon	2000-2008
Chief of Professional Services	2006-2008
United States Air Force Reserve	
433 <sup>rd</sup> Medical Squadron	
Lackland AFB, Texas	
Practicing Physician	1996-Present
Emergency and General Medicine	
Southwest Medical Associates	
Rockport, Texas	
Surgeon, General and Trauma Surgery	2005
Air Force Theater Hospital	
Balad Air Base, Iraq	
Physician, Critical Care Air Transport Team	2003
United States Air Force	
Operation Enduring Freedom	
Chief Resident in General Surgery	1994-1995
University of Kansas Medical Center	
Kansas City, Kansas	

**BOARD CERTIFICATIONS**

American Board of Surgery	
Certificate #40958	1996
Re-certification	2006

**PROFESSIONAL REGISTRATIONS**

National Board of Medical Examiners	
Certificate #386331	1991
Kansas Board of Healing Arts	
License #04-25775	1995-Present
Texas State Board of Medical Examiners	
License #J9983	1996-Present
Accreditation Commission for Traffic Accident Reconstruction	
Accredited Traffic Accident Reconstructionist	2011

Registration Number 2344  
Florida Medical Doctor Expert Witness Certification 2011  
Certificate Number MEEW87

## **PROFESSIONAL AFFILIATIONS**

American Society of Mechanical Engineers	1986
American Medical Association	1986
Society of Automotive Engineers	1996
Southwestern Surgical Congress	1996
Bexar County Medical Association	1996
Texas Medical Association	1996
Association for the Advancement of Automotive Medicine	1998
Aerospace Medical Association	1998
Association of Military Surgeons of the United States	2002

## **COMMITTEES AND CLINICAL APPOINTMENTS**

Wilford Hall USAF Medical Center, Lackland AFB, Texas  
Cuero Community Hospital, Cuero, Texas  
USAF International Military Education and Training Team, Instructor

## **HONORS AND AWARDS**

Graduated with Distinction, Purdue University  
Pi Tau Sigma Honorary Society of Mechanical Engineering  
Golden Key National Honor Society  
Phi Kappa Phi Honorary Society  
Excellence in Education, University of Kansas Medical School  
Meritorious Service Medal  
Air Force Commendation Medal  
United States Air Force Achievement Medal with Oakleaf Cluster  
Global War on Terrorism Expeditionary Medal  
National Defense Service Medal

## PRESENTATIONS AND INVITED LECTURES

Bowles, Alfred P., "Management of Hepatic Trauma in Children." Trauma Conference, University of Kansas Medical Center, Kansas City, Kansas. December 1992.

Bowles, Alfred P., "Intussusception: A Review of the Current Literature and Management." Department of Pediatrics Grand Rounds, University of Kansas Medical Center, Kansas City, Kansas. February 1993.

Bowles, Alfred P., W.L. Buntain, "Cystic Lymphangioma of the Pancreas." Kansas Chapter Annual Meeting, American College of Surgeons, Kansas City, Missouri. October 1994.

Bowles, A.P., "Understanding 'Whiplash': Analysis of Low Speed Rear-Impact Testing Using Human Test Subjects." Presentation to Society of Automotive Engineers, Inc., Low Speed Collision TOPTEC, Richmond, British Columbia, Canada, August 1996.

Bowles, A.P., "Auditory and Visual System Injury Potential with Airbag Deployment." Presentation to Society of Automotive Engineers, Inc., Airbag Design and Performance TOPTEC, Costa Mesa, California, August 1997.

"Low Velocity Impact Investigations"; National Insurance Crime Bureau Advanced Academy.

Houston, Texas, December 2-3, 1997

Portland, Oregon, June 2-4, 1998

Phoenix, Arizona, March 22-26, 1999

Baltimore, Maryland, August 31, 1999

Orlando, Florida, January 24, 2000

"Injury Causation"; Invited Lecturer, Personal Injury Seminar, Indianapolis, Indiana. March 21, 1998.

"Low Velocity Impact/Soft Tissue Claims - Biomechanical Investigation"; Property Loss Research Bureau Claims Conference.

Chicago, Illinois, April 7-8, 1998

Lincoln, Rhode Island, November 3-4, 1998

New Orleans, Louisiana, March 28-31, 1999

Atlanta, Georgia, March 12-13, 2001

"Low Velocity Impact Investigations"; Invited Lecturer, Arizona Department of Insurance Conference, Phoenix, Arizona, April 28, 1998.

“Ocular Injury from Air Bag Deployment”, Invited Lecturer, Defense Research Institute Product Liability Seminar, San Francisco, California, February 2, 1999.

“Injury Biomechanics in Low Velocity Impact Collisions”, Invited Lecturer, Louisiana Chapter, International Association of Special Investigation Units, New Orleans, Louisiana, June 22, 1999.

“Role of Biomechanics Expert in the Litigation of Low Velocity Claims”, Invited Lecturer, International Association of Special Investigation Units, Dallas, Texas, September 13-16, 1999.

“Trying a Low Velocity Impact Injury Case”; Mock Trial, American Board of Trial Advocates of Wisconsin, Milwaukee, Wisconsin, November 12, 1999.

“Air Bag Induced Eye Injury”, Inflatable Restraints in Aviation Workshop, Invited Lecturer, US Army Aeromedical Laboratory and The Technical Cooperative Program, Huntsville, Alabama, December 1-3, 1999.

“Air Bag Induced Eye Injury: The Automotive Experience.” Aerospace Medical Association 71<sup>st</sup> Annual Scientific Meeting, Houston, Texas, May 16, 2000.

“Operation Cutting Edge”, Combat Trauma Skills Course, Lead Instructor. United States Air Force Reserve, 433 MDS, Lackland AFB, Texas, February 3-4, 2001.

“Understanding Mechanisms of Vehicle Crash Related Injury”, South Central Texas Society of Gastroenterology Nurses and Associates Education Seminar, San Antonio, Texas, March 10, 2001.

Leadership Course in Regional Disaster Response and Trauma System Management, International Medical Education Team, United States Air Force Medical Service, San Salvador, El Salvador, September 10-15, 2001.

“Trauma, Critical Care and Para-Rescue Skills Course.” International Medical Education Team, United States Air Force Medical Service, Institute for Global Health, Kathmandu, Nepal, August 19-23, 2002.

“Cutting Edge Training: Critical Resuscitation Skills for the Combat Medical Provider”, Association of Military Surgeons of the United States, 105<sup>th</sup> Annual Conference, Louisville, Kentucky, November 14, 2002.

Leadership Course in Regional Disaster Response and Trauma System Management, Defense Institute for Medical Operations, United States Department of Defense.

Asmara, Eritrea, February 22-28, 2003

Hradec Kralove, Czech Republic, March 24-29, 2003

Pre-Hospital Trauma Life Support, Adjunct Faculty Instructor. US Army Airborne Task Force 44 Hospital, Camp Stronghold Freedom, Uzbekistan, July 28-30, 2003.

Critical Life-Saving Skills for First Responders, Defense Institute for Medical Operations, United States Department of Defense.

Kathmandu, Nepal, May 17-21, 2004

Mexico City, Mexico, September 20-24, 2004

Kigali, Rwanda, September 20-22, 2006

Forensic Investigation of Injuries, 2005 US Law Network Client Conference, New Orleans, Louisiana, March 11, 2005.

Blast Injury: Mechanism and Medical Management, International Emergency Preparedness and Response Research and Training Course, Cairo, Egypt, May 1-3, 2006.

Impact Biomechanics: Forensic Investigation of Injuries, School of Mechanical Engineering, Purdue University, West Lafayette, Indiana, November 20, 2006

## **PUBLICATIONS**

Howard, R.P., Bowles, A.P., Guzman, H.M., Krenrich, S.W., "Head, Neck and Mandible Dynamics Generated by 'Whiplash'", Accident Analysis and Prevention, Vol. 30, No. 4, pp 525-534, 1998.

Bowles, A.P., "Air Bag Induced Eye Injury: The Automotive Experience", (Abstract), Aviation, Space and Environmental Medicine, Vol. 71, No. 3, pp 287-288, 2000.

Banks, R.; Martini, J; Smith, H.; Bowles, A.; McNish, T.; Howard, R. "Alignment of the Lumbar Vertebra in a Driving Posture", Crash Prevention and Injury Control. Vol. 2, Issue 2, August 2000.

"Air Bag Related Eye Injuries", Proceedings of the Technical Cooperative Program Workshop: Inflatable Restraints in Aviation, USAARL Report No. 2000-21, pp 35-40, August 2000.