Bio

BIO
Dr. David A. Spain is the David L. Gregg, MD Professor and Chief of Acute Care Surgery. His clinical areas of specialty are emergency and elective general surgery, trauma and critical care. His research focus is assessment of clinical care, systems of care and introduction of new technology. He is the current Recorder and Program Chair of the American Association for the Surgery of Trauma and a Governor of the American College of Surgeons. He is the editor of the new textbook Scientific American's Critical Care of the Surgical Patient.

CLINICAL FOCUS
• Critical Care Medicine
• Trauma Surgery
• Splenectomy
• Hernia, Abdominal
• Cholecystectomy, Laparoscopic
• Surgical Critical Care

ACADEMIC APPOINTMENTS
• Professor - Med Center Line, Surgery - General Surgery

ADMINISTRATIVE APPOINTMENTS
• Chief of Trauma and Critical Care Surgery, Stanford University, (2001- present)

HONORS AND AWARDS
• Teaching Award, Stanford/Kaiser Emergency Medicine Residency (2003-04 and 2007-08)
• Collins Teaching Award, General Surgery Residency Program (2004-2005)
• General Surgery Chief Residents’ Award, Stanford (2009-2010)
PROFESSIONAL EDUCATION

- Board Certification: General Surgery, American Board of Surgery (1993)
- Board Certification: Surgical Critical Care, American Board of Surgery (1996)
- Fellowship: University of Louisville Hospital (1994) KY
- Residency: Robert Wood Johnson University Hospital (1992) NJ
- Medical Education: Wayne State University (1986) MI
- MD, Wayne State University, Medicine (1986)
- BS/Honors College, Michigan State University, Biochemistry (1982)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our main areas of interest are clinical research in shock, sepsis, multiple organ failure and ICU pneumonia, as well as organizational characteristic of well functioning trauma centers and systems. We are also developing a program in Health Services Research focused on access to specialized, high acuity care.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Surgical Critical Care Medicine (Fellowship Program)

Publications

PUBLICATIONS

- The trauma ecosystem: The impact and economics of new trauma centers on a mature statewide trauma system. *Journal of trauma and acute care surgery*
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  Spitzer, S. A., Staudenmayer, K. L., Tennakoon, L., Spain, D. A., Weiser, T. G.
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- Population-based estimate of trauma-related deaths for law enforcement personnel: Risks for death are higher and increasing over time. *Journal of trauma and acute care surgery*
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- The American College of Surgeons (ACS) Needs-Based Assessment of Trauma Systems (NBATS): Estimates for the State of California. *Journal of trauma and acute care surgery*
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- International rotations: A valuable source to supplement operative experience for acute care surgery, trauma and surgical critical care fellows. *Journal of trauma and acute care surgery*
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- Trends in open vascular surgery for trauma: implications for the future of acute care surgery. *Journal of surgical research*
  Forrester, J. D., Weiser, T. G., Maggio, P., Browder, T., Tennakoon, L., Spain, D., Staudenmayer, K.
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- Trends in the management of pelvic fractures, 2008-2010 *JOURNAL OF SURGICAL RESEARCH*
  Chu, C. H., Tennakoon, L., Maggio, P. M., Weiser, T. G., Spain, D. A., Staudenmayer, K. L.
• The Triage of Injured Patients: Mechanism of Injury, Regardless of Injury Severity, Determines Hospital Destination  
  Staudenmayer, K., Wang, N. E., Weiser, T. G., Maggio, P., Mackersie, R. C., Spain, D., Hsia, R. Y.  
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• Trauma center care is associated with reduced readmissions after injury.  journal of trauma and acute care surgery  
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• Uninsured status may be more predictive of outcomes among the severely injured than minority race  INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED  
  Gerry, J. M., Weiser, T. G., Spain, D. A., Staudenmayer, K. L.  
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• Small bowel obstruction: A practical step-by-step evidence-based approach to evaluation, decision making, and management.  journal of trauma and acute care surgery  
  Azagury, D., Liu, R. C., Morgan, A., Spain, D. A.  
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• Adding insult to injury: discontinuous insurance following spine trauma.  journal of bone and joint surgery. American volume  
  2015; 97 (2): 141-146

• Adding Insult to Injury: Discontinuous Insurance Following Spine Trauma  JOURNAL OF BONE AND JOINT SURGERY-AMERICAN VOLUME  
  2015; 97A (2): 141-146

• Prediction of neurosurgical intervention after mild traumatic brain injury using the national trauma data bank.  World journal of emergency surgery  
  Sweeney, T. E., Salles, A., Harris, O. A., Spain, D. A., Staudenmayer, K. L.  
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• Prediction of neurosurgical intervention after mild traumatic brain injury using the national trauma data bank.  World journal of emergency surgery  
  Sweeney, T. E., Salles, A., Harris, O. A., Spain, D. A., Staudenmayer, K. L.  
  2015; 10: 23-

• Ground-level Falls Are a Marker of Poor Outcome in the Injured Elderly  AMERICAN SURGEON  
  Gerry, J. M., Spain, D. A., Staudenmayer, K. L.  
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• Environmental Sampling for Clostridium difficile on Alcohol-Based Hand Rub Dispensers in an Academic Medical Center  SURGICAL INFECTIONS  
  Forrestor, J. D., Banaei, N., Buchner, P., Spain, D. A., Staudenmayer, K. L.  
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• Variations in Pediatric Trauma Transfer Patterns in Northern California Pediatric Trauma Centers (2001-2009)  ACADEMIC EMERGENCY MEDICINE  
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• Variations in pediatric trauma transfer patterns in Northern California pediatric trauma centers (2001-2009).  Academic emergency medicine  
  2014; 21 (9): 1023-1030

• Clostridium ramosum Bacteremia: Case Report and Literature Review  SURGICAL INFECTIONS  
  Forrestor, J. D., Spain, D. A.  
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• Factors Associated With the Disposition of Severely Injured Patients Initially Seen at Non-Trauma Center Emergency Departments Disparities by Insurance Status  JAMA SURGERY  
  2014; 149 (5): 422-430
• Factors associated with the disposition of severely injured patients initially seen at non–trauma center emergency departments: disparities by insurance status. *JAMA surgery*
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• Variability in California triage from 2005 to 2009: A population-based longitudinal study of severely injured patients. *Journal of trauma and acute care surgery*
  Staudenmayer, K., Lin, F., Mackersie, R., Spain, D., Hsia, R.
  2014; 76 (4): 1041-1047

• The epidemiology of trauma-related mortality in the United States from 2002 to 2010. *Journal of trauma and acute care surgery*
  Sise, R. G., Calvo, R. Y., Spain, D. A., Weiser, T. G., Staudenmayer, K. L.
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• Cost-effectiveness of helicopter versus ground emergency medical services for trauma scene transport in the United States. *Annals of emergency medicine*
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• Cost-effectiveness of preoperative imaging for appendicitis after indeterminate ultrasonography in the second or third trimester of pregnancy. *Obstetrics and gynecology*
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• Triage of elderly trauma patients: a population-based perspective. *Journal of the American College of Surgeons*
  Staudenmayer, K. L., Hsia, R. Y., Mann, N. C., Spain, D. A., Newgard, C. D.
  2013; 217 (4): 569-576

• Logistics of transfusion support for patients with massive hemorrhage. *Current Opinion in Anesthesiology*
  Goodnough, L. T., Spain, D. A., Maggio, P.
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  Pickham, D. M., Callcut, R. A., Maggio, P. M., Mell, M. W., Spain, D. A., Bech, F., Staudenmayer, K.
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• Abdominal wall reconstruction with dual layer cross-linked porcine dermal xenograft: The "Pork Sandwich" herniorrhaphy. *Journal of Plastic Reconstructive and Aesthetic Surgery*
  Satterwhite, T. S., Miri, S., Chung, C., Spain, D. A., Lorenz, H. P., Lee, G. K.
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  JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE
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  JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE
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  Maggio, P. M., Brundage, S. I., Hernandez-Boussard, T., Spain, D. A.
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• An Evaluation of Multidetector Computed Tomography in Detecting Pancreatic Injury: Results of a Multicenter AAST Study
  JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE
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• The impact of hypopituitarism on function and performance in subjects with recent history of traumatic brain injury and aneurysmal subarachnoid haemorrhage
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• Validation of a Prehospital Trauma Triage Tool: A 10-Year Perspective
  JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE
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• Insulin increases the release of proinflammatory mediators
  63rd Annual Meeting of the American-Association-for-the-Surgery-of-Trauma
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Peng, P. D., Spain, D. A., Tataria, M., Hellinger, J. C., Rubin, G. D., Brundage, S. I.

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County hospital surgical practice: a model for acute care surgery. *59th Annual Meeting of the Southwestern-Surgical-Congress*


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Pediatric blunt abdominal injury: Age is irrelevant and delayed operation is not detrimental. *64th Annual Meeting of the American-Association-for-the-Surgery-of-Trauma*


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Venous air embolism and pressure infusion devices. *Journal of Trauma-Injury Infection and Critical Care*

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Early enteral nutrition after abdominal trauma: effects on septic morbidity and practicality. *Nutrition in clinical practice*

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Lebl, D. R., Dicker, R. A., Spain, D. A., Brundage, S. I.

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Are temporary inferior vena cava filters really temporary? *57th Annual Meeting of the Southwestern-Surgical-Congress*


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• Management of acute complete tracheal transection caused by nonpenetrating trauma: Report of a case and review of the literature  *JOURNAL OF CARDIOTHORACIC AND VASCULAR ANESTHESIA*  
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• Perioperative risk assessment in elderly and high-risk patients  *International Symposium on World Overview of Important Nutrition Problems and How They are Being Addressed*  
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• Impairment of endothelium-dependent dilation response after resuscitation from hemorrhagic shock involved postreceptor mechanisms  *24th Annual Meeting of the Shock-Society*  
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• The continuing challenge of intra-abdominal infection  *27th Annual Surgical Symposium of the Association-of-VA-Surgeons*  
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• Ventilator-associated pneumonia and surgical patients *CHEST*
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  Vitaz, T. W., McIlvoy, L., Raque, G. H., Spain, D. A., Shields, C. B.
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