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 assessment of stress response and PTSD after trauma. He is the current President-elect of the American Association for the Surgery of Trauma and a Director of the American Board of Surgery. 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

- Medical Education: Wayne State University Office of the Registrar (1986) MI
- 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
- 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 association between angioembolization and splenic salvage for isolated splenic injuries. The Journal of surgical research
  2018; 229: 150–55

- Financial Stability of Level I Trauma Centers Within Safety-Net Hospitals. Journal of the American College of Surgeons
  2018

- Surgical deserts in California: an analysis of access to surgical care JOURNAL OF SURGICAL RESEARCH
  2018; 223: 102–8

- Trauma-induced insurance instability: Variation in insurance coverage for patients who experience readmission after injury. The journal of trauma and acute care surgery
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- Letter to the Editor. Annals of surgery
  Spitzer, S. A., Vail, D., Rajasingh, C. M., Tennakoon, L., Spain, D. A., Weiser, T. G.
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- Splenic trauma: WSES classification and guidelines for adult and pediatric patients WORLD JOURNAL OF EMERGENCY SURGERY
  2017; 12: 40

- Real-Time Clinical Decision Support Decreases Inappropriate Plasma Transfusion AMERICAN JOURNAL OF CLINICAL PATHOLOGY
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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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The prevalence of psychiatric diagnoses and associated mortality in hospitalized US trauma patients JOURNAL OF SURGICAL RESEARCH
Townsend, L. L., Esquivel, M. M., Uribe-Leitz, T., Weiser, T. G., Maggio, P. M., Spain, D. A., Tennakoon, L., Staudenmayer, K.
2017; 213: 171–76

A geospatial evaluation of timely access to surgical care in seven countries BULLETIN OF THE WORLD HEALTH ORGANIZATION
2017; 95 (6): 437–44

Spitzer, S. A., Staudenmayer, K. L., Tennakoon, L., Spain, D. A., Weiser, T. G.
2017; 107 (5): 770-774

Development and preliminary performance of a risk factor screen to predict posttraumatic psychological disorder after trauma exposure GENERAL HOSPITAL PSYCHIATRY
Carlson, E. B., Palmieri, P. A., Spain, D. A.
2017; 46: 25–31

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
2017

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
2017

Use of Unsolicited Patient Observations to Identify Surgeons With Increased Risk for Postoperative Complications. JAMA surgery
2017

National Readmission Patterns of Isolated Splenic Injuries Based on Initial Management Strategy. JAMA surgery
Rosenberg, G. M., Knowlton, L., Rajasingh, C., Weng, Y., Maggio, P. M., Spain, D. A., Staudenmayer, K. L.
2017; 152 (12): 1119–25

Trauma advanced practice provider programme development in an academic setting to optimize care coordination. Trauma surgery & acute care open
2017; 2 (1): e000068

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
2016: -?

A Multinational Evaluation of Timely Access to Basic Surgical Services Using Geospatial Analyses
ELSEVIER SCIENCE INC.2016: E118

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.
- The significance of underlying cardiac comorbidity on major adverse cardiac events after major liver resection. *HPB*
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- Contributions of risk and protective factors to prediction of psychological symptoms after traumatic experiences *COMPREHENSIVE PSYCHIATRY*
  2016; 69: 106-15

- 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.
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- The Triage of Injured Patients: Mechanism of Injury, Regardless of Injury Severity, Determines Hospital Destination *AMERICAN SURGEON*
  Staudenmayer, K., Wang, N. E., Weiser, T. G., Maggio, P., Mackersie, R. C., Spain, D., Hsia, R. Y.
  2016; 82 (4): 356-361

- Trauma center care is associated with reduced readmissions after injury. *journal of trauma and acute care surgery*
  Staudenmayer, K., Weiser, T. G., Maggio, P. M., Spain, D. A., Hsia, R. Y.
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- Advantages and psychometric validation of proximal intensive assessments of patient-reported outcomes collected in daily life *QUALITY OF LIFE RESEARCH*
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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.
  2016; 47 (1): 197-202

- 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.
  2015; 79 (4): 661-668

- The Effect of Chronic Kidney Disease on Postoperative Outcomes after Major Hepatectomy: Results from the National Surgical Quality Improvement Program
  ELSEVIER SCIENCE INC.2015: S94–S95

- Hepato-pancreatectomy: how morbid? Results from the national surgical quality improvement project *HPB*
  Tran, T. B., Dua, M. M., Spain, D. A., Visser, B. C., Norton, J. A., Poultsides, G. A.
  2015; 17 (9): 763-769

- Care and caring in the intensive care unit: Family members’ distress and perceptions about staff skills, communication, and emotional support *JOURNAL OF CRITICAL CARE*
  Carlson, E. B., Spain, D. A., Muhtadie, L., McDade-Montez, L., Macia, K. S.
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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.
• 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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• 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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  Goodnough, L. T., Spain, D. A., Maggio, P.
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• Predictors of emergency department death for patients presenting with ruptured abdominal aortic aneurysms JOURNAL OF VASCULAR SURGERY
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• Payer status is associated with the use of prophylactic inferior vena cava filter in high-risk trauma patients SURGERY
  Pickham, D. M., Callcut, R. A., Maggio, P. M., Mell, M. W., Spain, D. A., Bech, F., Staudenmayer, K.
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• Outcomes of Complex Abdominal Herniorrhaphy Experience With 106 Cases ANNALS OF PLASTIC SURGERY
  Satterwhite, T. S., Miri, S., Chung, C., Spain, D., Lorenz, H. P., Lee, G. 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.
  2012; 65 (3): 333-341

• The forgotten trauma patient: Outcomes for injured patients evaluated by emergency medical services but not transported to the hospital JOURNAL OF TRAUMA AND ACUTE CARE SURGERY
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  2012; 72 (3): 594-599

• Statins for Everyone Are We There Yet? ARCHIVES OF SURGERY
  Spain, D. A.
  2012; 147 (2): 189-189

• Under-Utilization of Transfer for Ruptured Abdominal Aortic Aneurysm (rAAA) in the Western United States
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• Development and Validation of a Brief Self-Report Measure of Trauma Exposure: The Trauma History Screen PSYCHOLOGICAL ASSESSMENT
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• Characteristics of Pediatric Trauma Transfers to a Level I Trauma Center: Implications for Developing a Regionalized Pediatric Trauma System in California ACADEMIC EMERGENCY MEDICINE
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• Early outcomes of deliberate nonoperative management for blunt thoracic aortic injury in trauma JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY
  Caffarelli, A. D., Mallidi, H. R., Maggio, P. M., Spain, D. A., Miller, D. C., Mitchell, R. S.
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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*
  2009; 66 (3): 641-646

• The impact of hypopituitarism on function and performance in subjects with recent history of traumatic brain injury and aneurysmal subarachnoid haemorrhage *Brain Injury*
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• Validation of a Prehospital Trauma Triage Tool: A 10-Year Perspective *Journal of Trauma-Injury Infection and Critical Care*
  2008; 65 (6): 1253-1257

• Insulin increases the release of proinflammatory mediators 63rd Annual Meeting of the American-Association-for-the-Surgery-of-Trauma
  Brundage, S. I., Kirilcuk, N. N., Lam, J. C., Spain, D. A., Zautke, N. A.
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• Responsible development and application of surgical innovations: a position statement of the Society of University Surgeons. *Journal of the American College of Surgeons*
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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
  EXCERPTA MEDICA INC-ELSEVIER SCIENCE INC. 2007: 758–64

• 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
  LIPPINCOTT WILLIAMS & WILKINS 2007: 608–14

• Venous air embolism and pressure infusion devices *Journal of Trauma-Injury Infection and Critical Care*
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• Recruitment strategies for a fall prevention program: If we build it, will they really come? 36th Annual Meeting of the Western-Trauma-Association
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• Requests for 692 transfers to an academic Level I trauma center: Implications of the Emergency Medical Treatment and Active Labor Act. 65th Annual Meeting of the American-Association-for-the-Surgery-of-Trauma
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• Endovascular management of a gunshot wound to the thoracic aorta. 35th Annual Meeting of the Western-Trauma-Association
  LIPPINCOTT WILLIAMS & WILKINS. 2006: 204–8

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• Spontaneous splenic rupture: The masquerade of minor trauma. 35th Annual Meeting of the Western-Trauma-Association
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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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