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Professional Profile

Dr. Parenteau has more than 30 years-experience in automotive safety, providing valuable information to the crash safety community. While working in the automotive industry in the US and Europe, in academia, and as a consultant, she has actively conducted a wide breadth of biomechanical research projects resulting in more than 120 technical peer-reviewed publications, as well as numerous patents and patent-related publications.

Dr. Parenteau provides expertise in the areas of biomechanics, occupant kinematics, human tolerance, and injury mitigation. Her work includes analysis of traumatic injury associated with crashes as well as sports. As part of her work in automotive safety, she has conducted research evaluating occupant responses and injury in front, side, rear and rollover using crash test dummies, cadavers, and modeling. Her research works also include extensive evaluations of field crash data, through analysis of FARS, NASS-CDS and other databases maintained by NHTSA. Dr. Parenteau also served as research assistant professor in the Department of Surgery at the University of Michigan and was involved in analyzing and linking analytical morphomics data to crash safety. In sport, she has analyzed research data on NFL and high school football helmets with respect to player safety.

Dr. Parenteau taught the Crashworthiness and Occupant Protection in Transportation Systems as part of the graduate program in the Biomedical Engineering Department at Wayne State University. She discussed crashworthiness and occupant safety facts, computational environment influences, review of federal motor vehicle safety regulations, windshield impact response, modeling and simulation of restraint system, occupants, energy management, and barrier crash tests. Dr. Parenteau has also extensively served the automotive community through her work with the Society of Automotive Engineers, organizing and Chairing various sessions at the SAE World Congress and acting as an Instructor for an SAE course focusing on automotive rollover.

Dr. Parenteau previously led the biomechanical and field data expertise as part of the advanced system group for the interior and electronics divisions at Delphi. She used accident data to assess the safety benefits of the pre-crash and occupant protection technologies and identify future needs. She also evaluated the biomechanical requirement for vehicle closure systems such as power sliding doors and adjustable pedals. She was part of the rollover project, a collaboration between Delphi, Delco, Saab, Milford Proving Grounds and used accident data to develop new laboratory tests.

Academic Credentials & Professional Honors

Ph.D., Chalmers University of Technology, Sweden, 1996

M.Sc., University of Pennsylvania, 1992

B.Sc., University of Pennsylvania, *Magna Cum Laude*, 1992

Awards

SAE/InterRegs Standards and Regulations Award, Society of Automotive Engineers, 2003

David Foust Memorial Fund administered by AAAM, 1994

Academic Appointments

Interviewer, University of Pennsylvania, 2013-present

Research Assistant Professor of Surgery, University of Michigan, 2012-2014

Interviewer, University of Pennsylvania, 2013-present

BioEngineering Instructor, Wayne State University, 2006-2011

Invited guest lecturer at University of Montreal, 2001-2002

SAE World Congress: Rollover/Rear/Side Impacts Session Organizer, 2001

Co-organizer for the Society of Automotive Engineers Lower Extremity TOPTEC, 2001

Professional Affiliations

Ordre des Ingenieurs du Quebec, 1994

Member of the Association for the Advancement of Automotive Medicine (AAAM), 1998-2004

Society of Automotive Engineers (SAE) Member, 2000-2004

Languages

French

Patents

Airbag For Pedestrian Protection - Windshield Frame, PT Number 6467563, 2002

Head Support For Smaller Rear Occupants With Optimal Torso Belt Routing, PT Number 6547333, 2003

Lower Extremity Inflatable System (Lexis), PT Number 6578867, 2003

Break-Away Knee Bolster, PT Number 7331606 02/2008

Defensive Publication

Dynamic Shoulder Belt Positioner And Static Presenter, DP Number 443105, 2001

Smart Belt, DP Number 444071, 2001

Lower Limb Airbag, DP Number 448048, 2001

Foot Pedal Airbag, DP Number 448046, 2001

Safety Net For Occupant Protection In A Vehicle Rollover Event, DP Number 457102, 2002

Adjustable Toepan With Pressure Sensitive Pedals, DP Number 465003, 2003

Power Adjustable Pedals With Moving Foot Support, DP Number 457102, 2003

Publications

Books

Viano DC, Parenteau CS. Editors. Rollover Crashes: Vehicles, Crashes and Injuries. SAE Book PT-101, Society of Automotive Engineers, Warrendale PA, 2004.

Kent R, Parenteau C. Bio-Mechanics: SP-1872, Society of Automotive Engineers, Warrendale PA, 2004.

Peer-Reviewed Publications

Young A., Axel L, Dougherty L, Bogen D, Parenteau C. Validation of Tagging with MR Imaging to Estimate Material Deformation. Radiology, Vol 188, 101-108, 1993.

Parenteau C, Viano D. A New Method to Determine the Biomechanical Properties of Human and Dummy Joints. 1995 IRCOBI Conference, pp. 183-198, 1995.

Parenteau C. Foot-Ankle Injury: Epidemiology and Method to Investigate Joint Biomechanics. Licentiate thesis, Chalmers University of Technology, 1995.

Parenteau C, Viano D, Lövsund P. Foot-Ankle Injury Epidemiological and Biomechanical Studies. International Conference on Pelvic and Lower Extremity Injuries, National Highway Traffic Safety Administration, Department of Transportation, pp. 191-200, December 4-6, 1995.

Petit P, Portier L, Foret-Bruno J-Y, Trosseilles X, Parenteau C. Influence of Muscle Tension on the Biomechanical Foot-Ankle Joints Responses and Updated Accidentological Data, 1996 ASI International Conference of Active and Passive Safety, Capri, Italy, 1996.

Parenteau C, Viano D, Petit P. Reanalysis of Wayne State University Foot-Ankle Data. Chalmers University of Technology Department of Injury Prevention Report R-034, 1996.

Parenteau C, Viano, D. Analysis of Foot-Ankle Injury, 1996 ASI International Conference of Active and Passive Safety, Capri, Italy, 1996.

Parenteau C. Foot-Ankle Joints Responses: Injury Epidemiology, Biomechanical Tests and Mathematical Modeling. Doctoral thesis, Chalmers University of Technology, 1996.

Petit P, Potier L, Foret-Bruno J-Y, Trosseille X, Parenteau C, Coltat J-C, Tarriere C, Lassau J-P. Quasi-static Characterisation of the Human Foot-Ankle Joints in Simulates Tensed State and Updated Accidentology Data., 1996 International IRCOBI Conference, 1996.

Parenteau C, Viano D. Mathematical Models of the Human and Dummy Foot-Ankles, International Journal of Crashworthiness, 1(4):381-39, 1996.

Parenteau C, Viano D, Lövsund P, Tingvall C. Foot-Ankle Injuries: Influence of Impact Location, Seating Position and Occupant Age, Accident Analysis and Prevention, 28(5):607-617, 1996.

Parenteau C, Viano D. Contribution of the Ankle Joint to the Foot-Ankle Motion. In Ph.D. Thesis, Chalmers University of Technology, 1996.

Parenteau C, Viano D, A New Method to Determine the Biomechanical Properties of Human and Dummy Joints, PT 56, Society of Automotive Engineers Book on Biomechanics of Impact Injury and Tolerance of the Extremities, SAE, Warrendale, PA 1996.

Moffatt E, Cooper E, Croteau J, Parenteau C, Togliola A, Head Excursion of Seat Belted Cadaver, Volunteers and Hybrid III ATD in a Dynamic Rollover Fixture. 41th Stapp Conference, SAE 973347, SAE, Warrendale, PA, pp. 509-525, 1997.

Parenteau C, Viano D, Petit P. Biomechanical Properties of Ankle-Subtalar Joints in Quasi-static Loading to Failure. Journal of Biomechanical Engineering, 120:105-111, 1998.

Lau E, Ray R, Parenteau C. Characteristics of Children in Rollover Accidents. 43rd Annual Meeting of the AAAM, Barcelona, Spain, 1999.

Shen W, Parenteau C, Roychoudhury R, Robbins J. Seated Weight Distribution of Adults and Children in Normal and Non-Normal Positions. 43rd AAAM, Barcelona, Spain, pp. 383-398, 1999.

Parenteau C, Shah M, Tieman C. Common Rollover Characteristics In US Rollover Crashes. International Journal of Traffic Medicine, 27 (4): 97-106,1999.

Parenteau C, Shah M, Desai T, Nilson G, Frampton R. US And UK Belted Driver Injuries With and Without Airbag Deployments - A Field Data Analysis, SAE 1999-01-0673, Society of Automotive Engineers, Warrendale, PA, 1999.

Parenteau CS, Viano DC. Center of rotation and ligament properties of the ankle-subtalar joints. J. Traffic Med. 28(1-2): 35-44, 2000.

Parenteau C, Shen W, Shah M. The Effectiveness of Adjustable Pedal Usage. SAE 2000-01-0172, Society of Automotive Engineers, Warrendale, PA, 2000.

Parenteau C, Shah M. Driver Injuries in US Single-Event Rollovers, SAE 2000-01-0633, Society of Automotive Engineers, Warrendale, PA, 2000.

Parenteau C, Thomas P, Lennart J. US And UK Field Rollover Characteristics. SAE 2001-01-0167, Society of Automotive Engineers, Warrendale, PA, 2001.

Parenteau C, Gopal M, Viano D. Near and Far Side Adult Front Passenger Kinematics in Vehicle Rollover. SAE 2001-01-0176, SAE, Warrendale, PA, 2001.

Parenteau C, Shah M, Gopal M. Volunteer and Dummy Head Kinematics in Low-Speed Lateral Sled Tests. Journal of Traffic Safety and Prevention, Vol. 3(3), pp. 233-240, 2002.

Steffan H, Hofinger M, Parenteau C, Shah M, Webber J. Abdominal Responses to Dynamically Lap Belt Loading. 2002 IRCOBI Conference, Munich, Germany, pp. 315-322, 2002.

Parenteau C, Viano D, Shah M, Gopal M, Nichols D, Davies J, Broden J. Field Relevance of a Suite of Rollover Tests To Real-World Crashes and Injuries. Accident Analysis and Prevention, Vol 35(1):103-10, 2003.

Parenteau C, Viano D, Field Data Analysis of Rear Occupant Injuries - Part I: Adults and Teenagers. SAE 2003-01-0153, Society of Automotive Engineers, Warrendale, PA, 2003.

Viano D, Parenteau C. Case Study Of Vehicle Maneuvers Leading To Rollovers: Need For A Vehicle Test Simulating Off Road Excursions, Recovery And Handling. SAE 2003-01-0169, Society of Automotive Engineers, Warrendale, PA, 2003.

Meijer R, Parenteau C, van Hoof J, Gopal M. (2003) Validation of a MADYMO mathematical human body model with detailed neck in low speed lateral impacts. 2003 International IRCOBI Conference on the Biomechanics of Impacts: 357-358.

Parenteau C, Viano D. Field Data Analysis of Rear Occupant Injuries - Part II: Children, Toddlers and Infants. SAE 2003-01-0154, Society of Automotive Engineers, Warrendale, PA, 2003.

Parenteau C, Viano D. Bounce-Overs: Fixed Object Impacts Then Rollovers. SAE 2004-01-0334, Society of Automotive Engineers, Warrendale, PA, 2004.

Viano D, Parenteau C. Rollover Crash Sensing and Safety Overview. SAE 2004-01-0342, Society of Automotive Engineers, PA, 2004.

Malott A, Parenteau C, Marigowda S, Arbogast K. Sled Test Results Using The Hybrid III 6 y.o.: An Evaluation of Various Restraints and Crash Configurations. SAE 2004-01-0316, Society of Automotive Engineers, Warrendale, PA, 2004.

Lemmen P, Gietelink O. Shah M, Parenteau C, Kosiak W, Cashler B. Development of a Pre-Crash System Using the Vehicle Test Facility, ESV conference, Paper 05-0322, 2005.

Parenteau CS. Far-Side Occupant Kinematics in Low Speed Lateral Sled, Traffic Injury Prevention, 7 (2), 2006.

Parenteau CS. A Comparison of Volunteers and Dummy Upper Torso Kinematics with and Without Shoulder Belt Slack in a Low Speed Side/Pre-Roll Environment, Traffic Injury Prevention, 7 (2), 2006.

Viano DC, Parenteau CS, Prasad P, Burnett R. Stiff versus Yielding Seats: Analysis of Matched Rear Impact Tests. SAE 2007-01-0708, Society of Automotive Engineers, Warrendale PA, 2007.

Viano DC, Parenteau CS, Edwards ML. Rollover Injury: Effects of Near- and Far-Seating Position, Belt Use and Number of Quarter Rolls. Traffic Injury Prevention, 8(4):382-392, 2007.

Viano DC, Parenteau CS. Field Accident Data Analysis of 2nd Row Children and Individual Case Review for Safety Priorities. SAE 2008-01-1851, SAE, Warrendale PA, 2008.

Viano DC, Parenteau CS. Fatalities by Seating Position and Principal Direction of Force for 1st, 2nd and 3rd Row Occupants. SAE 2008-01-1850, SAE, Warrendale PA, 2008.

Viano DC, Parenteau CS, Edwards ML. Crash Injury Risks for Obese Occupants Using a Matched-Pair Analysis. Traffic Injury Prevention, 9(1) 2008.

Viano DC, Parenteau CS. Crash Injury Risks for Obese Occupants. Submitted to the SAE, 2008 Congress, 2008.

Viano DC, Parenteau CS. Analysis of Head Impacts Causing Neck Compression Injury. Traffic Injury Prevention, 9(2):144-152, 2008.

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Kent R, Stacey S, Parenteau C. Dynamic pinch tolerance of the phalanges and interphalangeal joints.

Traffic Injury Prevention, 9(1):83-8, 2008.

Viano DC, Parenteau CS. Fatalities of Children 0-7 Years Old in the 2nd Row. Traffic Injury Prevention, 9(3):231-237, 2008.

Viano DC, Parenteau CS. Seat Belt Use: Comparison of NASS-CDS and Police Crash Reports. Traffic Injury Prevention, 10(5):427-435, 2009.

Viano DC, Parenteau CS. Front Seat Performance in Rear Impacts: Effect on 1st and 2nd Row Occupant Injury. SAE 2009-01-0252, SAE, Warrendale PA, 2009.

Viano DC, Parenteau CS, Gopal M, James M. Vehicle and Occupant Responses in a Friction Trip Rollover. SAE 2009-01-0830, SAE, Warrendale PA, 2009.

Viano DC, Parenteau CS, Burnett, R, James M. Influence of Seating Position on Dummy Responses with ABTS Seats in Severe Rear Impacts. SAE 2009-01-0250, Society of Automotive Engineers, Warrendale PA, 2009.

Edwards M, Viano DC, Parenteau CS. Analysis of Front-Seat Occupant Injuries in Rear Impacts. SAE 2009-01-1200, Society of Automotive Engineers, Warrendale PA, 2009.

Viano DC, Parenteau CS. Severe Injury to Near- and Far-Seated Occupants in Side Impacts by Crash Severity and Belt Use. Traffic Injury Prevention, 11(1):69-78, 2010.

Viano DC, Parenteau CS. Severe-Fatal Injury Risks in Crashes with Two Front-Seat Occupants by Seatbelt Use. Traffic Injury Prevention 11(3):294-299, 2010.

Viano DC, Parenteau CS. Ejection and Severe Injury Risks by Crash Type and Belt Use with Focus on Rear Impacts. Traffic Injury Prevention, 11(1):79-86, 2010.

Viano DC, Parenteau CS. Injury Risks in Frontal Crashes by Delta V and Body Region with Focus on Head Injuries. Traffic Injury Prevention, 11(4):382-390, 2010.

Parenteau CS, Viano DC. Basilar Skull Fractures by Crash Type and Injury Source. SAE 2011-01-1126, Society of Automotive Engineers, Warrendale PA, 2011.

Viano DC, Parenteau CS. BioRID Dummy Responses in Matched ABTS and Conventional Seat Tests on the IIHS Rear Sled. In review Traffic Injury Prevention, 2011.

Viano DC, Parenteau CS, Burnett R. Rear Impact Tests of Starcraft-Type Seats with Out-of-Position and In-Position Dummies. SAE 2011-01-0272, Society of Automotive Engineers, Warrendale PA, 2011.

Viano DC, Parenteau CS, Burnett R. Influence of standing or seated pelvis on dummy responses in rear impacts. Accid Anal Prev. 2012 Mar;45:423-31, 2012.

Viano DC, Parenteau CS. Front-to-rear crashes involving two vehicles with severe driver injury. Traffic Inj Prev.;13(1):55-60, 2012

Viano DC, Parenteau CS, Burnett R. Influence of belt pretensioning on dummy responses in 40 km/h rear-impact sled tests. Traffic Inj Prev. 13(1):65-71, 2012
Viano DC, Parenteau CS, Burnett R. Rebound after rear impacts. Traffic Inj Prev. 14(2):181-7, 2013.

Parenteau CS, Holcombe S, Zhang, P, Kohoyda-Inglis C, Wang SC. The effect of age on fat and bone properties along the vertebral spine, SAE Technical Paper 2013-01-1244, Society of Automotive Engineers, Warrendale PA, 2013.

Parenteau CS, Zhang P, Holcombe S, Wang SC Characterization of vertebral angle and torso depth by gender and age groups with a focus on occupant safety. *Traffic Inj Prev.* 2014;15(1):66-72

Parenteau CS, Zuby D, Brolin KB, Svenson MY, Palmertz C, Wang S. Restrained male and female occupants in frontal crashes: are we different? In the Proceedings of the IRCOBI conference, 2013.

Parenteau CS, Zhang P, Holcombe S, Kohoyda-Inglis C, Wang S. Analysis of Morphomics Parameters by Gender and BMI Groups: Thorax Shape and H-point Location. In the Proceedings of the IRCOBI conference, 2013.

Zhang PC, Parenteau CS, Wang L, Holcombe S, Kohoyda-Inglis C, Sullivan J, Wang S. (2013). Prediction of thoracic injury severity in frontal impacts by selected anatomical morphomic variables through model-averaged logistic regression approach, *Accident Analysis & Prevention*, 5;60C:172-180., 2013.

Holcombe S, Kindig M, Zhang P, Parenteau C, Rabban P, Hully L, Wang S. Age-based predictive model of the pediatric ribcage, *JSAE* 2013.

Parenteau CS, Ehrlich P, Ma L, Su LG, Holcombe S, Wang SC. The Quantification of Liver Anatomical Changes and Assessment of Occupant Liver Injury Patterns, *Stapp Journal*, 2013.

Parenteau CS, Zhang P, Holcombe S, Kohoyda-Inglis C, Wang SC. Can anatomical morphomic variables help predict abdominal injury rates in frontal vehicle crashes? *Traffic Inj Prev.* 2014;15(6):619-26.

Parenteau CS, Viano DC. Light-vehicle occupancy and severe injury by vehicle and crash type. *Traffic Inj Prev.* 2014;15(5):457-61.

Viano DC, Burnett R, Parenteau CS. Influence of a combo side airbag on the risk for basilar skull fracture in a far-side occupant. *Traffic Inj Prev.* 2014;15(7):726-33.

Viano DC, Parenteau CS. Effect of cargo loading on occupant injury and seat deformation in motor-vehicle crashes. *Traffic Inj Prev.* 2014;15(8):835-43.

Parenteau CS, Wang NC, Zhang P, Caird MS, Wang SC. Quantification of pediatric and adult cervical vertebra-anatomical characteristics by age and gender for automotive application. *Traffic Inj Prev.* 2014;15(6):572-82.

Parenteau CS, Viano DC. Spinal fracture-dislocations and spinal cord injuries in motor vehicle crashes. *Traffic Inj Prev.* 2014;15(7):694-700.

Viano DC, Parenteau CS. Concussion, Diffuse Axonal Injury, and AIS4+ Head Injury in Motor Vehicle Crashes. *Traffic Inj Prev.* 2015;16(8):747-53.

Viano DC, Parenteau CS. Update on the effectiveness of high retention seats in preventing fatal injury in rear impacts. *Traffic Inj Prev.* 2015;16(2):154-8.

Viano DC, Parenteau CS. NASS-CDS analysis of high retention seat performance in rear impacts. *Traffic Inj Prev.* 2015;16(5):491-7.

Viano DC, Parenteau CS. Effectiveness of the revision to FMVSS 301: FARS and NASS-CDS analysis of fatalities and severe injuries in rear impacts. *Accid Anal Prev.* 2016 Apr;89:1-8.

Viano DC, Parenteau CS. Difference in dummy responses in matched side impact tests of vehicles with and without side airbags. *Traffic Inj Prev.* 2016 Jul 3;17(5):524-9.

Viano DC, Parenteau CS. Brainstem injury in motor vehicle crashes. *Traffic Inj Prev.* 2017 Oct 3;18(7):730-735.

Viano DC, Parenteau CS, Xu L, Faul M2. Head injuries (TBI) to adults and children in motor vehicle crashes. *Traffic Inj Prev.* 2017 Aug 18;18(6):616-622.

Viano DC, Parenteau CS. Occupant-to-occupant contact injury in motor vehicle crashes. *Traffic Inj Prev.* 2017 Oct 3;18(7):744-747.

Viano DC, Parenteau CS. Severe Injury in Multiple Impacts: Analysis of 1997-2015 NASS-CDS. *Traffic Inj Prev.* 2018 Mar 19:1-17.

Viano DC, Parenteau CS, Burnett R. Thoracic and Lumbar Spine Responses in High-Speed Rear Sled Tests. *Traffic Inj Prev.* 2018 Mar 1:1-22.

Parenteau CS, Viano DC. Driver injury in near- and far-side impacts: Update on the effect of front passenger belt use. *Traffic Inj Prev.* 2018 Apr 3;19(3):264-269.

Viano DC, Parenteau CS. Belted driver fatalities: Time of death and risk by injury severity. *Traffic Inj Prev.* 2018 Feb 17;19(2):153-158.

Viano DC, Parenteau CS, Burnett R, Prasad P. Occupant responses in conventional and ABTS seats in high-speed rear sled tests. *Traffic Inj Prev.* 2018 Jan 2;19(1):54-59.

Parenteau CS, Viano DC. Driver and front passenger injury in frontal crashes: Update on the effect of unbelted rear occupants. *Traffic Inj Prev.* 2018 Jan 2;19(1):28-34.

Viano DC, Parenteau CS. Lumbar Spine Fractures in Undercarriage Impacts: Analysis of 1997-2015 NASS-CDS, SAE 2018-01-0546, Society of Automotive Engineers, Warrendale PA, 2018.

Parenteau CS, Viano DC. Abdominal Injuries in Frontal Crashes: Influence of Occupant Age and Seating Position, SAE 2018-01-0535, Society of Automotive Engineers, Warrendale PA, 2018.

Viano DC, Parenteau CS. Rear-Seat Occupant Responses in NHTSA Rear Crash Tests, SAE 2018-01-1330, Society of Automotive Engineers, Warrendale PA, 2018.

Viano DC, Parenteau CS. Rollover injury in vehicles with high-strength-to-weight ratio (SWR) roofs, curtain and side airbags, and other safety improvements. *Traffic Inj Prev.* 2018 Oct 30:1-7.

Viano DC, Parenteau CS. Severe injury in multiple impacts: Analysis of 1997-2015 NASS-CDS. *Traffic Inj Prev.* 2018 Jul 4;19(5):501-505.

Viano DC, Parenteau CS. Analysis of 2nd Row Sled Tests with the 5th Female Hybrid III: Errors, Misrepresentations, Misstatements and Incorrect Conclusions in Bidez et al. SAE 2005-01-1708, SAE 2019-01-0618, Society of Automotive Engineers, Warrendale PA, 2019.

Bunn BL, Johannson S, Kohoyda-Inglis C, Wang S, Parenteau CS, Holcombe S, Quantification of Sternum Morphometrics and Injury Data, SAE 2019-01-1217, Society of Automotive Engineers, Warrendale PA, 2019.

Viano D, Parenteau C, White S. Influence of DISH, Ankylosis, Spondylosis and Osteophytes on Serious-to-Fatal Spinal Fractures and Cord Injury in Rear Impacts SAE 2019-01-1028, Society of Automotive Engineers, Warrendale PA, 2019.

Parenteau C, Smedley J, Carhart M, Dibb A. The Effect of Obesity on Rollover Ejection and Injury Risks, SAE 2020-01-1219, Society of Automotive Engineers, Warrendale PA, 2020 (in press).

Parenteau C, Smedley J, Ian Campbell, Carhart M. Evaluation of Laminated Side Window Glazing Coding and Rollover Ejection Mitigation Performance using NASS-CDS, SAE 2020-01-1216, Society of Automotive Engineers, Warrendale PA, 2020 (in press).

Parenteau C, Stephens G, Yaek J, Gregory S. The Effect of FMVSS 301R on Vehicle Structure in Rear Impact, SAE 2020-01-1226, Society of Automotive Engineers, Warrendale PA, 2020 (in press).

Parenteau C, Campbell IA, Pasquesi SA. The Effect of Active and Conventional Head Restraints on Front Seat Occupant Responses in 16 km/h Rear Impacts 2020-01-1217, Society of Automotive Engineers, Warrendale PA, 2020.

Parenteau C, Caird M, Kohoyda-Inglis C, Holcombe S, Wang S. Characterization of Thoracic Spinal Development by Age and Gender and Possible Effect on Crash Occupants 2020-01-0520, Society of Automotive Engineers, Warrendale PA, 2020.

Parenteau C, Miller B, Burnett R. Injury Risk by Crash Severity, Belt Use and Head Restraint Type and Performance in Rear Impacts 2020-01-1223, Society of Automotive Engineers, Warrendale PA, 2020.

Parenteau C, Croteau J, Zolock J. The Effect of Crash Severity and Structural Intrusion on ATD Responses in Rear-End Crashes, SAE 2020-01-1224, Society of Automotive Engineers, Warrendale PA, 2020.

Parenteau C, Viano D. Update on Second-Row Children Responses in Rear and Frontal Crashes with a Focus on the Potential Effect of Stiffening Front Seat Structures 2020-01-1215 Society of Automotive Engineers, Warrendale PA, 2020.

Parenteau CS, Viano DC, Burnett R, Lau E. Second-row occupant responses with and without intrusion in rear sled and crash tests. *Traffic Injury Prevention*, 22 (1), 2021.

Parenteau CS, Viano DC, Burnett R, E. Lau. Effect of ABTS and Conventional Seats on Occupant Injury in Rear Impacts: Analysis of Field and Test Data. *Traffic Injury Prevention*, 2021.

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Parenteau CS, Burnett R, Viano DC, White S. Effect of Occupant Weight and Initial Position in Low-to-High Speed Rear Sled Tests with Older and Modern Seats, SAE 2021-01-0918, Society of Automotive Engineers, 2021.

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Buckman JL, Parenteau CS, Burnett R, Viano DC, Andreacovich C. Assessment of the 50th Hybrid III Responses in Blunt Rear Impacts to the Torso, SAE 2021-01-0919, Society of Automotive Engineers, 2021.

Parenteau CS, Viano DC, Hardy WN. Response Corridors for Blunt Impacts to the Back, JSAE 2021.

Viano DC, Burnett R, Miller GA, Parenteau CS. Influence of Retractor and Anchor Pretensioning on Dummy Responses in 40 km/h Rear Sled Tests, TIP 2021.

Other Publications

Parenteau C, Why Rear Crash Safety Is Not That Simple, MDTC Quarterly E-Newsletter, Vol. 10 no. 3, February 2020.

Selected Presentations

Parenteau C. Accident Investigation and Biomechanics, Presentations at the Arizona Bar Association, Phoenix, AZ, 1997.

Parenteau C. Occupant Kinematics and Injury Mechanisms in a High Speed Rear-End Impact. SAE TOPTEC on High Speed Rear-End Impacts, Society of Automotive Engineers, PA, Tempe, AZ, 1997.

Parenteau C. Driver Injuries with and without Airbag Deployments. SAE TOPTEC, Society of Automotive Engineers, PA, Costa Mesa, CA, August 1999.

Parenteau C. The Effectiveness of Adjustable Pedals. SAE Brazil, Society of Automotive Engineers, PA, San Paolo, Brazil, October 2000.

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Viano D, Parenteau C. Field Data Analysis of Vehicle Maneuvers Prior to Rollovers: Relevance of Handling Tests in Simulating the Precipitating Rollover Event. SAE Industry meeting, Society of Automotive Engineers, PA, May 2002.

Parenteau C. Field Relevancy of Rollover Tests. NCSA training meeting in Orlando, Florida, 2004.

Parenteau C. Potential Benefit of Tensioning in Rollover. SAE Industry meeting, Society of Automotive Engineers, PA May 2005.

Peer Reviewer

Accident Analysis

Traffic Injury and Prevention