

## Conference Reports

Conferences sponsored by the VA Rehabilitative Engineering Research and Development Service, or by individual VA Medical Centers in cooperation with VA RER&DS programs, will be reported in this new regular section of the Bulletin. In some cases we hope to publish the complete proceedings of important conferences, when other facilities for timely publication are lacking. In most cases, more brief accounts should be expected, with emphasis on subjects, contributors, and the availability of papers or a "Proceedings".

Conference Title:

### INVESTIGATING SPINAL STABILITY—AN ENGINEERING AND CLINICAL WORKSHOP

Loyola University, Maywood Illinois

October 15-18, 1980

The Rehabilitative Engineering Research and Development Service, through the Hines VA Medical Center, sponsored and funded an open forum for free exchange of data, feelings, and questions concerning clinical problems and basic biomechanical and physiological problems in the investigation of spinal stability. John R. Fisk, M.D., assistant professor and co-director of the RER&D Center at Loyola University Medical Center, coordinated the workshop.

Speakers began with an uncertainty of what was desired of them, but were able to generate interesting and profitable discussions. Short presentations were followed by equal time for discussion from the floor. Discussions were informal and allowed to continue in whichever direction seemed most appropriate. There was an opportunity to visit the RER&D Center at Hines VA Hospital, which is in a very exciting development stage.

Presentations were grouped under these headings: Anatomy, Spine Fractures, Acceleration, Biological Material, Instrumentation, Computer, Providing Stability, Implant Testing, Spinal Orthotics, Bony Fusion, and Spinal Injuries.

The titles of the presentations and their authors were: Spinal Stability (Clinical Concerns), **S. Stauffer**; Spinal Stability (Bioengineering Concerns), **A. Schultz**; Structure vs. Motion, **J. Fisk**; Bone Ligament Interface, **R. Little**; Phylogeny of Lower Cervical Spine Fractures and Dislocations, **B. Allen**; X-Ray Versus CT Scanning in Evaluation of Spinal Trauma, **P. DiMartino**; Biomechanics of Fractures, **J. Mazur**; Seatbelt Injuries, **D. Nagel**; Cephalocaudal Loads, **L. Kazarian**; In Vitro Techniques, **R. Jacobs**; The Canine as an Experimental Model, **K. Metz**; Sheep as an Experimental Model, **G. Lewinnek**; Cadaver Studies in Spinal Stability, **J. Laborde**; Intraoperative Applied Loads, **D. Smith**; Loading Machines for In Vitro Investigation of Spinal Stability, **R. Vanderby**; Transducer Instrumentation, **A. Patwardhan**; The Computer as a Clinical Tool, **D. Smith**; Spinal Modeling and Finite Element Analysis, **R. Brown**; Validity and Future Potentials, **C. Moseley**; Clinical Spinal Stability, **E.S. Stauffer**; Implants Present and Future, **J. Lonstein**; Design Versus Material in the Design of Spinal Instrumentation, **G. Shen**; Laboratory Studies of Spinal Implants, **K. Markolf**; Biomechanics of Implant Utilization,

**J. Mayfield**; Comparative Mechanics of Segmental Spinal Instrumentation Versus Traditional, **D. Wenger**; The System Post Time and Stress, **R. Jacobs**; Force Measurements, **T. Stonecipher**; Spinal Stability—Orthotic Design, **M. Carlson**; Orthotic Effectiveness, **J. Mayfield**; Fusion—When and How, **V. Mooney**; Internal Fixation, **J. Lonstein**; Bone Healing, **M. Cole**; Effect of Bony Fusion on the Mobility of Spine, **A. Patwardhan**; Surgical Indications and Contributions, **B. Allen**; Vertebral Body Replacement—Its Clinical Indications and Requirements, **M. Schafer**; Laboratory vs. Clinical Data, **K. Markolf**; Assuring Validity of Test Conditions, **L. Kazarian**.

Proceedings of the workshop will be available from the Continuing Medical Education Office, Loyola University, probably in the summer of 1981.