

Publications of Interest

BIOENGINEERING

Acquisition and Analysis of Electromyographic Data Associated with Dynamic Movements of the Arm, M. Gandy, S.W. Johnson, P.A. Lynn, G.A.L. Reed, and S. Miller; *Med. & Biol. Engng. & Comput.*, 18(1):57-64, Jan. 1980.

An Adaptive Control System for a Complete Hand/Arm Prosthesis, I.D. Swain and J.M. Nightingale; *J. Biomed. Engng.*, 2(3):163-166, July 1980.

Analysis and Measurement of the Loads on the Lumbar Spine During Work at a Table, G.B.J. Andersson, R. Örtengren and A. Schultz; *J. Biomech.*, 13(6):513-520, 1980.

Clinical Engineering Services at the VA Medical Center, Los Angeles, T.L. Robertson; *J. Clin. Engng.*, 5(2):126-132, Apr.-June 1980.

Closed-Loop Control of Force During Electrical Stimulation of Muscle, P.E. Crago, J.T. Mortimer, and P.H. Peckham; *IEEE Trans. on Biomed. Engng.*, BME-27(6):306-312, June 1980.

The Corrosion Fatigue of a Molybdenum Ion-Plated Orthopaedic En58J Stainless Steel, B. Gregory and R. Ozcan; *Engng. in Med.*, 9(1):3-7, Jan. 1980.

Dielectric Properties of Fluid-Saturated Bone, D.A. Chakkalakal, M.W. Johnson, R.A. Harper, and J.L. Katz; *IEEE Trans. on Biomed. Engng.*, BME-27(2):95-100, Feb. 1980.

The Effect of Variations of the Conducting Media Inhomogeneities on the Electroretinogram, M.J. Doslak, R. Plonsey, and C.W. Thomas; *IEEE Trans. Biomed. Engng.*, BME-27(2):88-94, Feb. 1980.

The Evoked Potential and Early Studies of Bioelectricity, A. Sances, Jr., J. Myklebust, S.J. Larson, and J.F. Cusick; *J. Clin. Engng.*, 5(1):27-32, Jan.-Mar. 1980.

A Feedback On-Off Model of Biped Dynamics, H. Hemami; *IEEE Trans. on Systems, Man, & Cybern.*, SMC-10(7):376-383, July 1980.

Finite Element Analysis of a Simulated Total Hip Replacement, N.L. Svensson, S. Valliappan and R. McMahon; *Engng. in Med.*, 9(3):143-146, July 1980.

Flat Circular Punch Testing of Clinical Support Surfaces, C.F. Small; *Engng. in Med.*, 9(1):9-16, Jan. 1980.

Function of Implanted Cathodes in Electrode-Induced Bone Growth, J.A. Spadaro and R.O. Becker; *Med. & Biol. Engng. & Comput.*, 17(6):769-775, Nov. 1979.

Functional Electrical Stimulation of the Upper Limb: Charting the Forearm Surface, R.H. Nathan; *Med. & Biol. Engng. & Comput.*, 17(6):729-736, Nov. 1979.

Hydrophilic Polyurethane Elastomers for Hemiarthroplasty: A Preliminary *In Vitro* Wear Study, J.B. Medley, R.M. Pilliar, E.W. Wong and A.B. Strong; *Engng. in Med.*, 9(2):59-65, April 1980.

An Interface Pressure Sensor for Routine Clinical Use, J.C. Robertson, J. Shah, H. Amos, J.E. Druett and J. Gisby; *Engng. in Med.*, 9(3):151-156, July 1980.

Intra-Articular Pressures During Joint Use—Their Changes with Disease and Pathological Consequences, M.I.V. Jayson; *Engng. in Med.*, 9(2):105-106, April 1980.

Joint Space of the Human Knee and Hip Joint Under a Static Load, K. Terayama, T. Takei and K. Nakada; *Engng. in Med.*, 9(2):67-74, April 1980.

Microcomputer-Controlled Visual Stimulator for Studies of Eye Movements and Visual Evoked Potentials. Technical Note, V.J. Äntti, E. Aantaa, H. Lang, J. Lahti, and J. Virtanen; *Med. & Biol. Engng. & Comput.*, 17(6):781-782, Nov. 1979.

A Miniature Swashplate Water Pump for Powered Prostheses, A.W. McIntyre, G.A. Needham, and R.D. McLeish; *Engng. in Med.*, 9(1):23-28, Jan. 1980.

Moiré Contourgraph—An Accuracy Analysis, M.C. Van Wijk; *J. Biomech.*, 13(7):605-613, 1980.

Moiré Contourography and Computer-Aided Replication of Human Anatomy, J.P. Duncan, D.P. Dean and G.C. Pate; *Engng. in Med.*, 9(1):29-36, Jan. 1980.

A Monitor for Plotting Pressure Contours Inside a Plaster Cast, D.J. Pratt, P. Bowker, D. Wardlaw and J. McLauchlan; *Engng. in Med.*, 9(3):147-149, July 1980.

Preliminary Study on Static Weight Distribution Under the Human Foot as a Measure of Lower Extremity Disability, A.K. Ghosh, D.N. Tibarewala, P. Mukherjee, S. Chakraborty, and S. Ganguli; *Med. & Biol. Engng. & Comput.*, 17(6):737-741, Nov. 1979.

Pressure Distribution Under the Foot During Static Activities, R. Arvikar and A. Seireg; *Engng. in Med.*, 9(2):99-103, Apr. 1980.

Review of Acquisition and Analysis of Somatosensory Evoked Potentials, J.B. Myklebust, B.A. Cohen, A. Sances, Jr., and J.F. Cusick; *J. Clin. Engng.*, 5(1):33-40, Jan.-Mar. 1980.

The Salford Technique for the Treatment of Complicated Tibial Fractures, A.J. Banks and E. Dervin; *Engng. in Med.*, 9(2):84-85, April 1980.

Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation, Antal K. Bejczy; *Science*, 208(4450):1327-1335, June 20, 1980.

Simulation: Problems Relating to Mechanical Tests on Hip Joint Replacements, A. Gatti; *Engng. in Med.*, 9(1):17-22, Jan. 1980.

Speech Recognition and Control System for the Severely Disabled, A. Cohen and D. Graupe; *J. Biomed. Engng.*, 2(2):97-107, Apr. 1980.

A System for the Rapid Acquisition of Surface Potential Maps of Human Skeletal Muscle Motor Units, A.W. Monster, J. Pittore, and W. Barrie; *IEEE Trans. on Biomed. Engng.*, BME-27(2):110-112, Feb. 1980.

Thermal and Circulatory Response of Tissue to Localized Pressure Application: A Mathematical Model, S.D. Mahanty and R.B. Roemer; *Arch. Phys. Med Rehab.*, 61(8):335-340, August 1980.

Velocity of Contraction of Skeletal Muscle as a Function of Activation and Fiber Composition: A Mathematical Model, C.A. Phillips and J.S. Petrofsky; *J. Biomech.*, 13(7):549-558, 1980.

Voice-Operated Transducer for the Disabled, V.L. Newhouse, C.T. Ho, and J.F. Pairitz; *J. Clin. Engng.*, 5(2):139-144, Apr.-Jun. 1980.

BIOMECHANICS

Anatomical Frames of Reference and Biomechanics, Herbert M. Reynolds and Robert P. Hubbard; *Human Factors*, 22(2):171-176, April 1980.

Angle-Angle Diagrams in the Assessment of Locomotion, Cecil Hersher and Morris Milner; *Amer. J. Phys. Med.*, 59(3):109-125, June 1980.

Ballistic Walking, S. Mochon and T.A. McMahon; *J. Biomech.*, 13(1):49-57, 1980.

A Biomechanical Analysis of the Joints of the Thumb, R. Toft and N. Berme; *J. Biomech.*, 13(4):353-360, 1980.

Biomechanics of Elbow Instability: The Role of the Medial Collateral Ligament, G. H. Schwab, J.B. Bennett, G.W. Woods, and H.S. Tullos; *Clin. Orthop. & Rel. Res.*, 146:42-52, Jan.-Feb. 1980.

Biomechanics of the Shoulder, C.O. Bechtol; *Clin. Orthop. & Rel. Res.*, 146:37-41, Jan.-Feb. 1980.

The Development of Mature Gait, D.H. Sutherland, R. Olshen, L. Cooper, and S.L.Y. Woo; *J. Bone Joint Surg.*, 62-A(3):336-353, April 1980.

The Effect of Cane Use on Hip Contact Force, R.A. Brand and R.D. Crowninshield; *Clin. Orthop. & Rel. Res.*, 147:181-184, Mar.-Apr. 1980.

Electromyographic Activity of Shoulder Muscles During Unilateral Upper Extremity Proprioceptive Neuromuscular Facilitation Patterns, P.E. Sullivan and L.G. Portney; *Phys. Ther.*, 60(3):283-288, Mar. 1980.

Electromyographic Biofeedback for Tension Control During Fine Motor Skill Acquisition, Stephen N. French; *Biofeedback and Self-Regulation*, 5(2):221-228, June 1980.

Electromyographic Investigations of Gait in Cerebral Palsied Children, H. Woltering, V. Güth, and F. Abbink; *Electromyogr. Clin. Neurophysiol.*, 19(6):519-533, Nov.-Dec. 1979.

A Five Body-Three Dimensional Dynamic Analysis of Walking, D.E. Hardt and R.W. Mann; *J. Biomech.*, 13(5):455-457, 1980.

Fourier Analysis of Forces Exerted in Walking and Running, R. McN. Alexander and A.S. Jayes; *J. Biomech.*, 13(4):383-390, 1980.

Gait of Children with Down Syndrome, A.W. Parker and R. Bronks; *Arch. Phys. Med. Rehab.*, 61(8):345-351, August 1980.

The Geometric Properties of Paired Human Tibiae, G.J. Miller and W.W. Purkey, Jr.; *J. Biomech.*, 13(1):1-8, 1980.

Ground Reaction Forces in Distance Running, P.R. Cavanagh and M.A. LaFortune; *J. Biomech.*, 13(5):397-406, 1980.

An Improved Approach for Performance Evaluation in Lower Extremity Involvement, A.K. Ghosh, D.N. Tibarewala, S. Chakraborty, S. Ganguli and K.S. Bose; *J. Biomed. Engng.*, 2(2):121-125, Apr. 1980.

Internal Fixation of Intertrochanteric Hip Fractures: A Clinical and Biomechanical Study, R.R. Jacobs, O. McClain, and H.J. Armstrong; *Clin. Orthop. & Rel. Res.*, 146:62-70, Jan.-Feb. 1980.

An Investigation Into Biomechanical Causes of Prosthesis Stem Loosening Within the Proximal End of the Human Femur, H.A.C. Jacob and A.H. Huggler; *J. Biomech.*, 13(2):159-173, 1980.

Isokinetic and Isometric Torque Relationships in the Human Body, J.J. Knapik and M.U. Ramos; *Arch. Phys. Med. Rehab.*, 61(2):64-67, Feb. 1980.

A Mathematical Model for the Dynamics of Human Locomotion, S. Onyshko and D.A. Winter; *J. Biomech.*, 13(4):361-368, 1980.

Measurement and Analysis of In Vivo Bone Strains on the Canine Radius and Ulna, D.R. Carter, D.J. Smith, D.M. Spengler, C.H. Daly, and V.H. Frankel; *J. Biomech.*, 13(1):27-38, 1980.

Mechanical Compliance Evaluation of Clinical Support Surfaces, C.F. Small; *J. Biomech.*, 13(4):315-322, 1980.

Method of Measuring "Shearing" Forces on the Sole of the Foot, J.W. Tappin, J. Pollard and E.A. Beckett; *Clin. Phys. & Physiol. Meas.*, 1(1):83-85, Feb. 1980.

On the Biomechanics of the Shoulder Complex, A. Erkan Engin; *J. Biomech.*, 13(7):575-590, 1980.

One Leg Swing Through Gait Using Two Crutches: An Analysis of the Ground Reaction Forces and Gait Phases, J. Stallard, E. Dounis, R.E. Major, and G.K. Rose; *Acta Orthop. Scand.*, 51(1):71-77, Feb. 1980.

Planar Control in Multi-Camera Calibration for 3-D Gait Studies, H.J. Woltring; *J. Biomech.*, 13(1):39-48, 1980.

Review of Some Basic Assumptions in Knee Biomechanics, M. Nissan; *J. Biomech.*, 13(4):375-381, 1980.

The Role of the Ankle Plantar Flexors in Normal Walking, D.H. Sutherland, L. Cooper, and D. Daniel; *J. Bone Joint Surg.*, 62-A(3):354-363, April 1980.

Simple Kinematic Gait Measurement, T. Bajd and A. Kralj; *J. Biomed. Engng.*, 2(2):129-132, Apr. 1980.

The Size of Active Motor Units in the Initiation and Maintenance of an Isometric Contraction Carried Out to Fatigue, A. Blank, B. Gonen, and A. Magora; *Electromyogr. Clin. Neurophysiol.*, 19(6):535-539, Nov.-Dec. 1979.

Skeletal Transients on Heel Strike in Normal Walking with Different Footwear, L.H. Light, G.E. McLellan and L. Klenerman; *J. Biomech.*, 13(6):477-480, 1980.

Strength of Isometric and Isokinetic Contractions: Knee Muscles of Men Aged 20 to 86, M.P. Murray, G.M. Gardner, L.A. Mollinger, and S.B. Sepic; *Phys. Ther.*, 60(4):412-419, Apr. 1980.

A Study of Lower-Limb Mechanics During Stair-Climbing, T.P. Andriacchi, G.B.J. Andersson, R.W. Fermier, D. Stern, and J.O. Galante; *J. Bone Joint Surg.*, 62-A(5):749-757, Jul 1980.

Study on Eccentric-Concentric Contraction of the Upper Extremity Muscles, T. Bober, E. Jaskólski and Z. Nowacki; *J. Biomech.*, 13(2):135-138, 1980.

Surface EMG and Muscle Force at Low Force Levels, V. Pollak; *Amer. J. Phys. Med.*, 59(3):126-141, June 1980.

Surgical Implications of Biomechanics of the Foot and Ankle, R.A. Mann; *Clin. Orthop. & Rel. Res.*, 146:111-118, Jan.-Feb. 1980.

System of Reporting and Comparing Influence of Ambulatory Aids on Gait, G.L. Smidt and M.A. Mommens; *Phys. Ther.*, 60(5):551-558, May 1980.

A Technique for Obtaining Spatial Kinematic Parameters of Segments of Biomechanical Systems from Cinematographic Data, N.R. Miller, R. Shapiro and T.M. McLaughlin; *J. Biomech.*, 13(7):535-547, 1980.

A Technique for the Display of Pressure Distributions Beneath the Foot, P.R. Cavanagh and M. Ae; *J. Biomech.*, 13(2):69-75, 1980.

Torque Curves Produced at the Knee During Isometric and Isokinetic Exercise, G.N. Scudder; *Arch. Phys. Med. Rehab.*, 61(2):68-73, Feb. 1980.

Transfers of Mechanical Energy Within the Total Body and Mechanical Efficiency During Treadmill Walking, M.R. Pierrynowski, D.A. Winter and R.W. Norman; *Ergonomics*, 23(2):147-156, February 1980.

The Wrist Position Between Neutral and Ulnar Deviation that Facilitates the Maximum Power Grip Strength, J.C. Pryce; *J. Biomech.*, 13(6):505-511, 1980.

ORTHOTICS

Electromyographic Studies of the Hip Joint Musculature When Using Ischial Weight Bearing Orthoses. (German text. German, English, French summaries.), R. Volkert, D. Steeger and P. Busch; *Orthopädie Technik*, 30(12):181-184, Dec. 1979.

Experiences in Milwaukee Brace Treatment of Scoliosis, (German text. German, English, French summaries.), P. Siguda and E. Röhms; *Orthopädie Technik*, 31(2):26-28, Feb. 1980.

Functional Bracing of Colles' Fractures: A Prospective Study of Immobilization in Supination vs. Pronation, A. Sarmiento, J.B. Zagorski, and W.F. Sinclair; *Clin. Orthop. & Rel. Res.*, 146:175-183, Jan.-Feb. 1980.

Intermediate Influence of the Thoracic Flexion Exercise on Vertebral Position in Milwaukee Brace Wearers, R.A. Miyasaki; *Phys. Ther.*, 60(8):1005-1009, August 1980.

Is the Supporting Therapy of the Vertebral Column Still Senseful? (German text. German, English, French summaries.), W. Krause; *Orthopädie Technik*, 30(12):185-187, Dec. 1979.

Lower Extremity Bracing in Paraplegia—A Follow-up Study, J.K. Coghlan, C.E. Robinson, B. Newmarch, and G. Jackson; *Paraplegia*, 18(1):25-32, Feb. 1980.

Orthopaedic Aspects in the Treatment of Rheumatic Patients (German text. German, English, French summaries.), H.G. Jilke; *Orthopädie Technik*, 31(4):49-52, April 1980.

Orthoses and Ambulation in Hemiplegia: A Ten Year Retrospective Study, R. Ofir and H. Sell; *Arch. Phys. Med. Rehab.*, 61(5):216-220, May 1980.

Orthoses for Rheumatoid Fingers, Richard D. Koch and David A. Bird; *Orth. & Prost.*, 34(2):25-32, June 1980.

A Quantitative Comparative Analysis of Fracture Healing Under the Influence of Compression Plating vs. Closed Weight-Bearing Treatment, Augusto Sarmiento, Donald L. Mullis, Loren L. Latta, Richard R. Tarr, and Rafael Alvarez; *Clin. Orthop. & Rel. Res.*, 149:232-239, June 1980.

The Rationale of Functional Bracing of Fractures, L. L. Latta, A. Sarmiento, and R.R. Tarr; *Clin. Orthop. & Rel. Res.*, 146:28-36, Jan.-Feb. 1980.

Spondylflex—A New Sacro-Iliac Support Bandage, (German text. German, English, French summaries.), J. Merx; *Orthopädie Technik*, 31(2):17-18, Feb. 1980.

The Switzer Splint, S. Switzer; *Brit. J. Occup. Ther.*, 43(2):63-64, Feb. 1980.

The Treatment of Active Dorsal Scheuermann's Disease by a New Reclination Brace for Thoracic Respiration, (German text. German, English, French Summaries), M. Yücel and J. Breitenfelder; *Orthopädie Technik*, 31(1):7-8, Jan. 1980.

Treatment of Idiopathic Scoliosis in the Milwaukee Brace: Long-Term Results, William A. Carr, John H. Moe, Robert B. Winter, and John E. Lonstein; *J. Bone Joint Surg.*, 62-A(4):599-612, June 1980.

A Tri-Correctional Upper-Limb Orthosis, W.F. Benton; *Ortho. & Prost.*, 34(1):41-42, Mar. 1980.

The VAPC Functional Elbow Orthosis, K.P. Lablanc and C.P. Mason; *Ortho. & Prost.*, 34(1):13-24, Mar. 1980.

Variable Abduction HKAFO for Spinal Bifida Children, Kenneth V. Jackman, Robert O. Nitschke, P. William Haake, and James A. Brown; *Orth. & Prost.*, 34(2):3-9, June 1980.

PROSTHETICS

Adaptive, Adjustable Device for Providing Wide Range of Initial Flexion for Above Knee Prosthesis, F. Surdyk; *Amer. Corr. Ther. J.*, 34(2):57, March-April 1980.

Amputations and Prostheses, Miroslaw Vitali, Kingsley P. Robinson, Brian G. Andrews, and Edward E. Harris, 1978, 241 pp. Bailliere Tindall, Cassell & Co., Ltd., 35 Red Lion Square, London WC1R 4SG. (Also available from Macmillan Publishing Co., Inc., 866 Third Ave., New York, N.Y. 10022).

The Below-Elbow Myo-electric Prosthesis, M.D. Northmore-Ball, Hanna Heger and Gordon A. Hunter; *J. Bone Joint Surg.*, 62-B(3):363-367, August 1980.

Error Rate in Five-State Myoelectric Control Systems, J.E. Paciga, P.D. Richard and R.N. Scott; *Med. & Biol. Engng. & Comput.*, 18(3):287-290, May 1980.

Experiences with OTTO-BOCK-Modular Prostheses (German text. German, English, French summaries.), G. Laszlo and L. Radnai; *Orthopädie Technik*, 31(1):5-6, Jan. 1980.

For Accelerated Postamputation Rehabilitation: Zoroc Intermediate Prostheses, J.M. Leal, J.M. Malone, W.S. Moore, and S.J. Malone; *Ortho. & Prost.*, 34(1):3-12, Mar. 1980.

Götz von Berlichingen and his Prostheses (The Two Jagsthausen Hands) (German text. German, English, French summaries.), L. Löffler; *Orthopädie Technik*, 31(1):11-15, Jan. 1980.

The Guildford Elbow Joint, E.J. Evans and P.J. Stiles; *J. Biomed. Engng.*, 2(3):205-210, July 1980.

Low Temperature Performance of Electric Hands. (Technical Note.) R.R. Caldwell and R.N. Scott; *Med. & Biol. Engng. & Comput.*, 17(6):779-780, Nov. 1979.

Modification of Temporary Below-Knee Sockets for Amputees with Absent or Diminished Sensation, T.G. McPoil, H.T. Bergtholdt, and G.C. Hunt; *Phys. Ther.*, 60(4):437-438, Apr. 1980.

Myoelectric Control of an Artificial Hand for Sequential Movement in a Tropical Climate, G.C. Ray, S.C. Saxena, and P. Mukhopadhyay; *Med. & Biol. Engng. & Comput.*, 17(6):724-728, Nov. 1979.

Myoelectric Prosthetic Fitting in Young Children, Rolf Sörbye; *Clin. Orthop. & Rel. Res.*, 148:34-40, May 1980.

Myoelectric Signal Processing: Optimal Estimation Applied to Electromyography—Part I: Derivation of the Optimal Myoprocessor, N. Hogan and R.W. Mann; *IEEE Trans. on Biomed. Engng.*, BME-27(7):382-395, July 1980.

Myoelectric Signal Processing: Optimal Estimation Applied to Electromyography—Part II: Experimental Demonstration of Optimal Myoprocessor Performance, N. Hogan and R.W. Mann; *IEEE Trans. on Biomed. Engng.*, BME-27(7):396-410, July 1980.

Myoelectrically Controlled Hand Prostheses in Children—Clinical Considerations (German text. German, English, French summaries.), R. Sörbye; *Orthopädie Technik*, 31(2):19-22, Feb. 1980.

Occupational Therapy for the Limb-Deficient Child: A Developmental Approach to Treatment Planning and Selection of Prostheses for Infants and Young Children with Unilateral Upper Extremity Limb Deficiencies, Susan D. Clarke and Joanna G. Patton; *Clin. Orthop. & Rel. Res.*, 148:47-54, May 1980.

Parapodium Design with Knee and Hip Locks, James A. Brown, Martha Gram, and Edward Kinnen; *Orth. & Pros.*, 34(2):14-20, June 1980.

A Polycentric Knee-Ankle Mechanism for Above-Knee Prostheses, A. Cappozzo, T. Leo and S.S. Cortesi; *J. Biomech.*, 13(3):231-239, 1980.

Pressure Distribution Measurement in Prosthetic Sockets (German text. German, English, French summaries.), E. Hennig and H. Habermann; *Orthopädie Technik*, 31(1):1-4, Jan. 1980.

A Prosthesis for the Short Above-Knee Amputee, I. Onna, J. Mizrahi, and Z. Susak; *Orth. & Pros.*, 34(2):10-13, June 1980.

A Prosthesis for Very Short Below-Knee Stumps, R. Seliktar, A. Bar, Z. Susak, and T. Najenson; *Ortho. & Prosth.*, 34(1):25-35, Mar. 1980.

Prosthetic and Stump Problems of Elderly Amputees, (German text. German, English, French summaries.), W. Ulsass; *Orthopädie Technik*, 31(4):59-60, April 1980.

Prosthetic Communication Device, J.W. Steadman, C.D. Ferris, and C.N. Rhodine; *Arch. Phys. Med. Rehab.*, 61(2):93-97, Feb. 1980.

Prosthetic Design for a Chronic Foot Deformity, L. Eickman and M. Benson; *Phys. Ther.*, 60(4):429-430, Apr. 1980.

Prosthetic Management for Children with Knee Disarticulations, D.J. Jendrzeczyk; *Inter-Clinic Info. Bull.*, 17(7):9-16, March 1980.

Prosthetic Management of A/K Amputees with Hip Joint Flexion Contractures (German text. German, English, French summaries.), R. Schettler; *Orthopädie Technik*, 31(3):37-39, Mar. 1980.

Prosthetic Management of Knee Disarticulation in Geriatrics (German text. German, English, French summaries.), W. Knoche; *Orthopädie Technik*, 30(12):192-194, Dec. 1979.

Prosthetic Supply with Electrically Powered Arm Prostheses and Multifunctional Control Systems, (German text. German, English, French summaries.), H. Benning; *Orthopädie Technik*, 31(4):53-56, Apr. 1980.

Recent Advances in Research in Prosthetics for Children, Julie Shaperman and Carl T. Sumida; *Clin. Orthop. & Rel. Res.*, 148:26-33, May 1980.

Replacement of the Proximal Humerus With a Ceramic Prosthesis: a Preliminary Report, F.H. Sim, E.Y.S. Chao, D.J. Pritchard, and M. Salzer; *Clin. Orthop. & Rel. Res.*, 146:161-174, Jan.-Feb. 1980.

Report on the Principles and Clinical Experiences of a Compression Therapy Prosthesis for B/K Stump Problems (German text. German, English, French summaries.), W. Winkler and G. Fitzlaff; *Orthopädie Technik*, 30(12):188-190, Dec. 1979.

Selected Reading: A Review of Orthotics and Prosthetics, Brian A. Mastro and Robert T. Mastro. 1980. 406 pp. The American Orthotic and Prosthetic Association, 1444 N St., N.W., Washington, D.C. 20005.

The Selectively Placed Silicone-Gel Liner System for PTB Prosthesis, Jack M. Graves; *Orth. & Pros.*, 34(2):21-24, June 1980.

Sensory-Feedback System Compatible with Myoelectric Control, R.N. Scott, R.H. Brittain, R.R. Caldwell, A.B. Cameron, and V.A. Dunfield; *Med. & Biol. Engng. & Comput.*, 18(1):65-69, Jan. 1980.

Standards for Modular Prostheses, A. Staros; *Prosth. Orth. Int.*, 4(1):45-46, April 1980.

Technical Aspects of a New Myoelectrically Controlled Hand for Children, (German text. German, English, French summaries.), L. Hedström, T. Holmquist, S. Randström and R. Sörbye; *Orthopädie Technik*, 31(2):23-25, Feb. 1980.

Two Prostheses for Knee Disarticulation (German text. German, English, French summaries.), J.W. Ziegler; *Orthopädie Technik*, 31(3):40-42, Mar. 1980.

Use of Austin-Moore Prosthesis Through Anterolateral Approach in Intracapsular Fracture of Femoral Neck, S.L. Chhabra, H. Ershadi, and F.A. Khaweri; *Orthop. Rev.*, 9(6):77-79, June 1980.

SENSORY AIDS

Communication Aids for the Blind, H. Lauer and L. Mowinski; *Blindness (AAWB Annual)*, 60-72, 1979-80.

The Demography of Blindness Throughout the World, Hyman Goldstein. 1980, Research Series No. 26. American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011. (For detailed information, see Notes and News.)

Differential Electrical Excitation of the Auditory Nerve, R.C. Black and G.M. Clark, *J. Acoust. Soc. Amer.*, 67(3):868-874, Mar. 1980.

The Effects of Hearing Aids on Localization of White Noise by Blind Subjects, Bruce R. Bergen; *J. Vis. Impair. & Blind.*, 74(5):189-192, May 1980.

Foundations of Orientation and Mobility. 1980. 672 pp. Edited by Richard L. Welsh and Bruce B. Blasch. American Foundation for the Blind, 15 West 16th St., New York, New York 10011. (For detailed information, see Notes and News department.)

Free Field Pure Tone Audiometry as a Comparative System for the Assessment and Fitting of Hearing Aids, Monty Schulberg; *J. Biomed. Engng.*, 2(3):197-200, July 1980.

Irrational Thinking and Adjustment to Loss of Vision, W.E. Needham and M.N. Ehmer; *J. Vis. Impair. & Blind.*, 74(2):57-61, Feb. 1980.

Living With Impaired Vision: An Introduction, Anne Yeadon and Dava Grayson. 75 pp. American Foundation for the Blind, 15 West 16th St., New York, N.Y. 10011. \$7.00.

Modern Technologies Applied to Communications for the Blind, E.L. Glaser; *Blindness (AAWB Annual)*, 51-59, 1979-80.

New Attachments of the Precision Micrometer for the Blind, Sneh Anand and Sujoy K. Guha; *Sensory World*, 39:20-29, June 1980.

Nonlinearities in Auditory-Nerve Fiber Responses to Bandlimited Noise, T.B. Schalk and M.B. Sachs; *J. Acoust. Soc. Amer.*, 67(3):903-913, Mar. 1980.

Orientation and Mobility Come of Age, W.R. Wiener; *Blindness (AAWB Annual)*, 118-148, 1979-80.

Rehabilitation of Blind Patients with Lower Extremity Amputations, P.C. Altner, J.J. Rusin, and A. DeBoer; *Arch. Phys. Med. Rehab.*, 61(2):82-85, Feb. 1980.

Sensory Substitution in Rehabilitation, Paul Bach-y-Rita; *Sensory World*, 39:12-19, June 1980.

Simultaneous Recording of the Visual Evoked Response to Flashes at Different Retinal Locations, G.W. Thickbroom and J.L. Black; *Clin. Phys. & Physiol. Measurement*, 1(1):41-45, Feb. 1980.

SPINAL CORD INJURY

Analysis of Changes in the Scoliotic Spine Using a Three-Dimensional Radiographic Technique, J. Hindmarsh, J. Larsson and O. Mattsson; *J. Biomech.*, 13(3):279-290, 1980.

The Cervical Spine after Halo-Pelvic Traction, John Dove, Louis C.S. Hsu and Arthur C.M.C. Yau; *J. Bone & Joint Surg.*, 62-B(2):158-161, May 1980.

Electronic Aspects of Spinal-Cord Stimulation in Multiple Sclerosis, D.T. Jobling, R.C. Tallis, E.M. Sedgwick, and L.S. Illis; *Med. & Biol. Engng. & Comput.*, 18(1):48-56, Jan. 1980.

Experience with the Management of Deep Vein Thrombosis in Patients with Spinal Cord Injury, A. Perkash; *Paraplegia*, 18(1):2-14, Feb. 1980.

Localization of Spinal Motor Neurons Supplying Single Ventral Roots, J.F. Lane and J.F. Hindson; *Amer J Phys. Med.*, 59(2):55-72, Apr. 1980.

Mineral Metabolism in Spinal Cord Injury, N.E. Naftchi, A.T. Viau, G. H. Sell, and E.W. Lowman; *Arch. Phys. Med. Rehab.*, 61(3):139-142, Mar. 1980.

Paraplegia Following Surgery in Foix and Alajouanine Syndrome, L.W. Kneisley, M.R. Dominguez, A. Bignami and A.B. Rossier; *Paraplegia*, 18(1):33-41, Feb. 1980.

Physiological Work Performance in Chronic Low Back Disability: Effects of a Progressive Activity Program, L.K. Thomas, H.J. Hislop, and R.L. Waters; *Phys. Ther.*, 60(4):407-411, Apr. 1980.

Pressure Sore Prevention for the Wheelchair-Bound Spinal Cord Injury Patient, M.W. Ferguson-Pell, I.C. Wilkie, J.B. Reswick and J.C. Barbenel; *Paraplegia*, 18(1):42-51, Feb. 1980.

Reduced Motor Conduction Velocity of the Ulnar Nerve in Spinal Cord Injured Patients, L. Stefaniwsky, D.S. Bilowit, and S.S. Prasad; *Paraplegia*, 18(1):21-24, Feb. 1980.

Sensory and Motor Activity in the Posterior Primary Rami Following Complete Spinal Cord Injury, W.H. Donovan and G.M. Bedbrook; *Arch. Phys. Med. Rehab.*, 61(3):133-138, Mar. 1980.

A Simple Method for the Stabilization of Malignant Spines, A.J. Banks and E. Dervin; *Engng. in Med.*, 9(2):81-83, April 1980.

Thyroid Hypofunction in Spinal Cord Injury Patients, V. Prakash, M.S. Lin, C.H. Song and I. Perkash; *Paraplegia*, 18(1):56-63, Feb. 1980.

Training Apartment in Community for Spinal Cord Injured Patients: a Model, A.Z. El-Ghatit, J.L. Melvin, and M.A. Poole; *Arch. Phys. Med. Rehab.*, 61(2):90-92, Feb. 1980.

SURGERY

Controlled Environment Treatment, I.M. Troup; *Prosth. Orth. Int.*, 4(1):15-28, April 1980.

The Effect of Thickness and Pressure on the Curing of PMMA Bone Cement for the Total Hip Joint Replacement, G.C. Sih, G.M. Connelly and A.T. Berman; *J. Biomech.*, 13(4):347-352, 1980.

Femoral Fractures in Patients with Lower Extremity Amputations, Erwin G. Gonzalez and Mathai M. Mathews; *Arch. Phys. Med. Rehab.*, 61(6):276-280, June 1980.

Hinged Total Knee Prosthesis, Frank C. Hui and Robert H. Fitzgerald, Jr.; *J. Bone Joint Surg.*, 62-A(4):513-519, June 1980.

Mamma-Amputation and Possibilities of Reconstructive Plastic Surgery. (German text. German, English, French summaries.), R.R. Olbrisch; *Orthopädie Technik*, 31(1):9-11, Jan. 1980.

Mechanical Loosening of the Femoral Head Prosthesis in the Charnley Total Hip Arthroplasty, A.S. Carlsson and C.F. Gentz; *Clin. Orthop. Rel. Res.*, 147:262-270, Mar.-Apr. 1980.

The Monk "Soft Top" Endoprosthesis, P.J. Webb, K.W.J. Wright and G.D. Winter; *J. Bone Joint Surg.*, 62-B(2):174-179, May 1980.

The Phenomenon of Implant Loosening—Late Complications after Joint Substitution Surgery, (German text. German, English, French summaries.), L. Zichner and W. Heipertz; *Orthopädie Technik*, 31(3):33–36, Mar. 1980.

Pre-Ischiatic Silicone Implants, A.C. Sierra, A.L. Pita and P.S. de Munian; *Paraplegia*, 18(1):52–55, Feb. 1980.

Recent Advances in Surgery of Lower Limb Deficiencies, Leon M. Kruger; *Clin. Orthop. & Rel. Res.*, 148:97–105, May 1980.

Results of Knee Replacement with the Walldius and Geometric Prostheses: A Comparative Study, Frank C. Wilson, David M. Fajgenbaum, and George C. Venters; *J. Bone Joint Surg.*, 62-A(4):497–503, June 1980.

Results with the Constrained Total Knee Prosthesis in Treating Severely Disabled Patients and Patients with Failed Total Knee Replacements, William L. Bargar, Andrea Cracchiolo III, and Harlan C. Amstutz; *J. Bone Joint Surg.*, 62-A(4):504–512, June 1980.

Scoliosis in Symptomatic Spondylolisthesis, I.B. McPhee and J.P. O'Brien; *J. Bone Joint Surg.*, 62-B(2):155–157, May 1980.

The Spherocentric Knee: A Re-Evaluation and Modification, F.R. Convery, M. Minter-Convery, and L.L. Malcom; *J. Bone Joint Surg.*, 62-A(3):320–327, April 1980.

Survivorship of Total Hip Replacements, H.S. Dobbs; *J. Bone Joint Surg.*, 62-B(2):168–173, May 1980.

Three Dimensional Stress Analysis of the Femoral Stem of a Total Hip Prosthesis, S.J. Hampton, T.P. Andriacchi and J.O. Galante; *J. Biomech.*, 13(5):443–448, 1980.

Total Shoulder Replacement with a Constrained Prosthesis, M. Post, S.S. Haskell, and M. Jablon; *J. Bone Joint Surg.*, 62-A(3):327–335, April 1980.

Traumatic Limb Amputations and Subsequent Mortality from Cardiovascular Disease and Other Causes, Z. Hrubec and R.A. Ryder; *J. Chron. Dis.*, 33:239–250, 1980.

GENERAL

Aids for Handicapped Children. Prepared by Barry R. Seeger, edited by Leon M. Stern, August 1980. 76 pp. The Crippled Children's Association of South Australia Inc., The Regency Park Centre for Physically Handicapped Children, Days Road, Regency Park, South Australia 5010, Australia.

American National Standard Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People, ANSI A117.1–1980, 68 pp American National Standards Institute, 1430 Broadway, New York, N.Y. 10018.

Arterial Occlusive Disease in Amputee Patients: Assessment with the Doppler Ultrasound Flowmeter and Correlation with Rehabilitation, Z. Susak, A. Gaspar, and T. Najenson; *Arch. Phys. Med. Rehab.*, 61(6):269–272, June 1980.

Augmentative Modes of Communication for the Severely Speech- and Motor-Impaired, Gregg C. Vanderheiden; *Clin. Orthop. & Rel. Res.*, 148:70–86, May 1980.

"Burns" Occurring During Lengthy Surgical Procedures, F. Gendron; *J. Clin. Engng.*, 5(1):19–26, Jan.–Mar. 1980.

Comparison of Actual and Simulated EMG Biofeedback in the Treatment of Hemiplegic Patients, W.W. Hurd, V. Pegram, and C. Nepomuceno; *Amer. J. Phys. Med.*, 59(2):73–82, April 1980.

Current Uses of Mobility Aids, Brian J. Allison; *Clin. Orthop. & Rel. Res.*, 148:62–69, May 1980.

Design of an Artificial Skin. I. Basic Design Principles, I.V. Yannas and J.F. Burke; *J. Biomed. Mat. Res.*, 14(1):65–81, Jan. 1980.

Design of an Artificial Skin. II. Control of Chemical Composition, I.V. Yannas, J.F. Burke, P.L. Gordon, C. Huang, and R.H. Rubenstein; *J. Biomed. Mat. Res.*, 14(2):107–132, March 1980.

Design of an Artificial Skin. III. Control of Pore Structure, N. Dagalakakis, J. Flink, P. Stasikellis, J.F. Burke, and I.V. Yannas; *J. Biomed. Mat. Res.*, 14(4):511–528, July 1980.

Digest of Data on Persons with Disabilities. Rehab. Group, Inc., 5827 Columbia Pike, Falls Church, Virginia 22041. May 1979. 141 pp. (Document is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)

Electrode Effectiveness During Transcutaneous Motor Stimulation, H.E. Nelson, Jr., M.B. Smith, B.R. Bowman, and R.L. Waters; *Arch. Phys. Med. Rehab.*, 61(2):73–77, Feb. 1980.

EMG Biofeedback in Stroke: A 1-Year Follow-Up on the Effect of Patient Characteristics, S.L. Wolf, M.P. Baker, and J.L. Kelly; *Arch. Phys. Med. Rehab.*, 61(8):351–355, August 1980.

Fracture Toughness Concept Applied to Methyl Methacrylate, G.C. Sih and A.T. Berman; *J. Biomed. Mat. Res.*, 14(3):311–324, May 1980.

Hand Grip Function in Patients with Rheumatoid Arthritis, D.B. Myers, D.M. Grennan, and D.G. Palmer; *Arch. Phys. Med. Rehab.*, 61(8):369–373, August 1980.

Hand Strength Measurement Instruments, K.N. An, E.Y.S. Chao, and L.J. Askew; *Arch. Phys. Med. Rehab.*, 61(8):366–368, August 1980.

Hum-Controlled Electric Wheelchair. R.L. Ramsey, J.H. Aylor, B.W. Johnson, and C.T. Swanson; *Med. & Biol. Engng. & Comput.*, 17(6):776–778, Nov. 1979.

Infant Amputees: Early Growth and Care, Ruth Rosenfelder; *Clin. Orthop. & Rel. Res.*, 148:41–46, May 1980.

Measurement of Compression Loads in Thigh and Shank Fractures, (German text. German, English, French summaries.), H. Schädlich; *Orthopädie Technik*, 31(4):57–58, April 1980.

Measurement of Electrical Currents Emerging During the Regeneration of Amputated Finger Tips in Children, Cynthia M. Illingworth and A.T. Baker; *Clin. Phys. & Physiol. Meas.*, 1(1):87–89, Feb. 1980.

Motor Nerve Latencies Through the Tarsal Tunnel in Normal Adult Subjects: Standard Determinations Corrected for Temperature and Distance, Robert Fu, Joel A. DeLisa, and George H. Kraft; *Arch. Phys. Med. Rehab.*, 61(6):243–248, June 1980.

Muscle Blood Flow Changes in Response to 915 MHz Diathermy with Surface Cooling as Measured by Xe^{133} Clearance, K.M. Sekins, D. Dundore, A.E. Emery, J.F. Lehmann, P.W. McGrath, and W.B. Nelp; Arch. Phys. Med. Rehab., 61(3):105-113, Mar. 1980.

Nerve Conduction Velocity: Relationship of Skin, Subcutaneous and Intramuscular Temperatures, E.M. Halar, J.A. DeLisa, and F.V. Brozovich; Arch. Phys. Med. Rehab., 61(5):199-203, May 1980.

A New Footsteering Wheelchair, J. Knox, Brit J. Occup. Ther., 43(2):51, Feb. 1980.

Performance Evaluation of Surgical Diathermy Indifferent Electrodes, D. Whelpton; Clin. Phys. & Physiol. Meas., 1(1):59-70, Feb. 1980.

Physical Therapy Management of Patients with Total Ankle Replacement, C.L. Smith; Phys. Ther., 60(3):303-306, Mar. 1980.

Piezoelectric Ceramic Implants: A Feasibility Study, J.B. Park, A.F. von Recum, G.H. Kenner, B.J. Kelly, W.W. Coffeen, and M.F. Grether, J. Biomed. Mat. Res., 14(3):269-277, May 1980.

Polyurethane Foam Wheelchair Cushions: Retention of Supportive Properties, G.M. McFadyen and D.L. Stoner; Arch. Phys. Med. Rehab., 61(5):234-237, May 1980.

Positive Pressure Respiratory Assist for Wheelchair-Mobile Persons, H.V. Janelli, T.A. Krouskop, J. Canzoneri, and J. Jameson; Arch. Phys. Med. Rehab., 61(3):143-144, Mar. 1980.

Recreational Activities of Lower Extremity Amputees: A Survey, Bernice Kegel, Jeffrey C. Webster, and Ernest M. Burgess; Arch. Phys. Med. Rehab., 61(6):258-264, June 1980.

Rehabilitation of an Electrical Burn Patient through Thermal Biofeedback, E.I. Bird and G.R. Colborne; Biofeedback and Self-Regulation, 5(2):283-287, June 1980.

Rehabilitation Outcome: Comparative Analysis of Different Patient Types, S.K. Forer and L.S. Miller; Arch. Phys. Med. Rehab., 61(8):359-365, August 1980.

Rehabilitative and Geriatric Teaching Programs: Clinical Efficacy in a Skilled Nursing Facility, John E. Schuman, Ellen J. Beattie, Dorothy A. Steed, James E. Gibson, George M. Merry, and Arthur S. Kraus; Arch. Phys. Med. Rehab., 61(7):310-315, July 1980.

Relative Stresses of Wheelchair Activity, Roger M. Glaser, Stephen A. Barr, Lloyd L. Laubach, Michael N. Sawka, and Agaram G. Suryaprasad; Human Factors., 22(2):177-181, April 1980.

Serving Physically Disabled People. An Information Handbook for All Libraries. Ruth A. Velleman, 1979. 392 pp. R.R. Bowker Company, 1180 Avenue of the Americas, New York, N.Y. 10036. \$17.50.

A Simple and Versatile Driving Appliance for Upper Limb Amputees, T.E. Sensky; Prosth. Orth. Int., 4(1):47-49, April 1980.

Skin Problems of the Leg Amputee, S.W. Levy; Prosth. Orth. Int., 4(1):37-44, April 1980.

Synthesis of a Fine Neurological Electrode by Plasma Polymerization Processing, J.G. Cannon, R.O. Dillon, R.F. Bunschah, P.H. Crandall, and A.M. Dymond; J. Biomed. Mat. Res., 14(3):279-288, May 1980.

The Telescoping Bifurcation Synostosis in the Treatment of Incomplete Longitudinal Tibial Deficiency, L.C. Meyer, R.I. Sehayik, and H. Davis; Inter-Clinic Info. Bull., 17(7):1-8, March 1980.

A Terribly Strange Bed. D. Morrison; Engng. in Med., 9(1):43-47, Jan. 1980.

Toileting Self-Care Methods for Bilateral High Level Upper Limb Amputees, L. Friedmann; Prosth. Orth. Int., 4(1):29-36, April 1980.

Treatment of Ischemic Ulcers of the Lower Extremities, D.H. Klasson; Angiology; J. Vasc. Dis., 31(3):210-219, March 1980.

Vestibular Control of Oculomotor and Postural Mechanisms, G.R. Barnes; Clin. Phys. & Physiol. Meas., (1):3-40, Feb. 1980.

Wheelchair Cushion Effect on Skin Temperature, Heat Flux, and Relative Humidity, S.F.C. Stewart, V. Palmieri, and G.V.B. Cochran; Arch. Phys. Med. Rehab., 61(5):229-233, May 1980.