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CONTENTS

- vi Letter to the Editor
- vii A Tribute to Colin A. McLaurin, ScD
Dudley S. Childress, PhD
- xi Guest Editorial
Rory A. Cooper, PhD
- xii Clinical Relevance for the Veteran: Summaries of Scientific/Technical Articles

Scientific/Technical Articles

- 1 Peak foot pressures influence the healing time of diabetic foot ulcers treated with total contact casts
David G. Armstrong, DPM; Lawrence A. Lavery, DPM, MPH; Tod R. Bushman, DPM
- 6 Videofluoroscopic evaluation of prosthetic fit and residual limbs following transtibial amputation
Christian R. Bocobo, MD; Juan M. Castellote, MD, PhD; Dougal MacKinnon, MD, PhD; Ann Gabrielle-Bergman, MD
- 14 Experimental development of a sensory control system for an upper limb myoelectric prosthesis with cosmetic covering
Andrea Tura, MS; Claudio Lamberti, MS; Angelo Davalli, MS; Rinaldo Sacchetti, MS
- 27 Accuracy and precision of volumetric determinations using two commercial CAD systems for prosthetics: A technical note
Sven Johansson, CPO, BsC and Tommy Öberg, MD, PhD
- 34 Three-dimensional evaluation of lumbar orthosis effects on spinal behavior
Ngoc Huynh Tuong, MASc, Eng; Jean Dansereau, PhD, Eng; Gilles Maurais, MD, FRCS(c); Rony Herrera, OPD
- 43 A neural net representation of experienced and nonexperienced users during manual wheelchair propulsion
Patrick Patterson, PhD, PE and Scott Draper, MS
- 52 Development of a simple approach to modify the supporting properties of seating foam for pressure relief
Tommy E.T. Kang, BEng, MPhil and Arthur F.T. Mak, PhD
- 61 Three-dimensional kinematics of the shoulder complex during wheelchair propulsion: A technical report
Jaime L. Davis, BA; Eric S. Growney, BS; Marjorie E. Johnson, MS, PT; Brian A. Iuliano, BS, Kai-Nan An, PhD
- 73 Crash simulations of wheelchair-occupant systems in transport
Weize Kang, PhD and Walter D. Pilkey, PhD

Clinical Reports

- 85** Sensory Changes in Adults with Unilateral Transtibial Amputation: A Clinical Report
Judith B. Kosasih, MD and M. Barbara Silver-Thorn, PhD
- 91** Application of Fuzzy Logic Techniques for the Qualitative Interpretation of Preferences in a Collective Questionnaire for Users of Wheelchairs
Rubén Lafuente, MS; Álvaro Page, PhD; Javier Sánchez-Lacuesta, MS; Lourdes Tortosa, MD

Departments

- | | |
|---|---|
| 108 Abstracts of Recent Literature
<i>Joan E. Edelstein, MA, PT and Jerome D. Schein, PhD</i> | 130 Publications of Interest |
| 128 Book Review
<i>Kristjan T. Ragnarsson, MD</i> | 146 Calendar of Events |
| 129 New Books | 150 Index to JRRD Vol. 34 (1997) |

LETTER TO THE EDITOR

To the Editor:

Rehabilitation After Knee Injury: A Swinging Crank

The return to normal activity after injury or operations on the knee may depend on the rate of mobilization. An engineer and cycling enthusiast, aged 73 years, achieved a rapid recovery when he found a way to obtain his own physiotherapy. He had sustained a torn sub-patellar tendon of his right knee, which did not require surgery, causing painful flexion. Extension exercises were advised but were particularly uncomfortable as a result of the accident and so he devised a way to limit the pain and get fit by cutting and hinging the pedal crank of a standard bicycle. The pedal then lifted through a shorter distance than usual (**Figure 1**), reducing the knee movement on the affected side, enabling him to cycle daily. Normal flexion returned within 2 weeks, followed by full recovery in approximately 3 months. The pedal cranks are made of hardened steel and could be modified easily in a light engineering workshop using a Zif-bronze bush and stainless steel bolt. Either side could be altered without affecting the gears, making it equally suitable for an exercise machine or road bike.

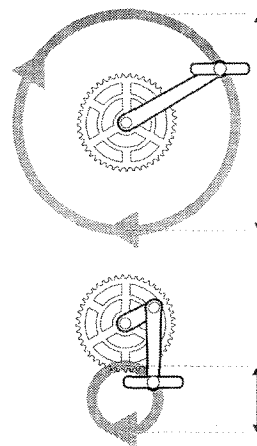


Figure 1.
Standard crank and swinging crank (below).
Arrows show the range of vertical travel.

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