Effects of fatigue on ankle stability and proprioception in university sportspersons

Objectives
To assess the effect of fatigue from sporting activity on ankle stability and proprioception in students at the University of Southampton. A wide range of sporting activity was included from taekwondo to indoor football.

Methods
Subjects were recruited from Southampton University sport facilities. They agreed to perform two dynamic tests both before and after they took part in sport. (1) A horizontal hop test: starting and finishing on the same foot. The best distance from three attempts was recorded. (2) A hexagonal hop test: the subjects hopped around a hexagon marked on the ground in either a clockwise or anticlockwise direction as quickly as possible. The quickest attempt out of three was recorded.

Results
The means before and after exercise were compared using a Student’s t-test. The means before and after exercise were

Hexagonal hop test (n = 40)
A Student’s t test was used to compare the best time for the hexagonal hop test both before and after exercise. The t value was 3.95, indicating a significant improvement in hop time after exercise.

Horizontal hop test (n = 25)
At the 5% level, the data are insignificant, with a t value of 0.1107. A general trend of improved performance after exercise (fatigue) was observed (mean of 1.746m before against 1.775m after).

Conclusions
The results show that the subjects made significant improvements in hexagonal hop times with no difference in the distance hopped. This leads to the conclusion that, despite muscular fatigue, ankles appear to be more stable after exercise. Does exercise induce an increase inafferent/efferent nerve impulses to and from muscle spindles around the ankle leading to improved joint position sense?

J P Brown, G W Bowyer
University of Southampton Medical School, Southampton University, Southampton, UK.

References

S Naimer
Department of Emergency Medicine, N eve Dekalim, G oost Katif, Israel 79779; sody@bms.com

Centripetal skater’s manual oedema
This doctor’s indulgence in rigorous physical activity led to the realisation of a novel clinical entity. As an active sportsman and ex-ice hockey player, currently living in a hot climate, I have had to sublimate my sporting activities to infrequent inline roller skate street journeys. Recently, on a day of a very pressed schedule, I attempted to concentrate a week’s exercise into one concise session. After an hour and a fifteen minutes of intense exertion, rapidly skating up and down hills and valleys, over good and not so good paved surfaces, I experienced an unexpected heaviness and tightness in the tips of my fingers. Later I noticed that the simple task of donning my skates was not fully possible, and the motion was more accentuated in the right hand (the more dominant of the two). Within the course of a couple of hours the whole condition spontaneously subsided.

The means before and after exercise were compared using a Student’s t-test. The means before and after exercise were

1. The resulting hydrostatic effects of physical exertion of the lower limbs are well documented.1-3 Possible reasons why this problem does not occur during ice skating are the fact that long distances without any stops are uncommon and the cold environment may provide protection through peripheral vasoconstriction.

Thus heavy roller skating is a thought to entertain a doctor’s mind when confronted with a patient with acute unexplained bilateral hand oedema.

S Naimer
Department of Emergency Medicine, Neve Dekalim, G oost Katif, Israel 79779; sody@bms.com

References

LETTER
Intense training in elite female athletes: evidence of reduced growth and delayed maturation?

In their recent article Intense training in elite young female athletes, Baxter-Jones and Maffulli reviewed 18 studies and concluded that growth among female gymnasts was more accentuated in the right hand (the more dominant of the two). Within the course of a couple of hours the whole condition spontaneously subsided.

Maffulli reviewed 18 studies and concluded that elite level gymnasts who are successful at an elite level may be at risk of adverse effects on growth.2 We reported that the increased magnitude of the delay in skeletal maturation with training in an adolescent female gymnast, coupled with the occurrence of catch-up growth during periods of reduced training or retirement, provides evidence that growth and maturation may be affected in some instances.3 Furthermore, in contrast with the interpretation made by Baxter-Jones and Maffulli of our data, we did report an association between growth and years of gymnastic training, and that the deficits were greater at the growth spurt than in girls of the same age.4

We agree with Baxter-Jones and Maffulli that a cause-effect relation between gymnastics training and inadequate growth of girls has not been shown; there have been no randomised controlled trials. However, this does not mean there is “no evidence for inadequate growth among female gymnasts” as we have found reasons why this may be at risk of adverse effects on growth.5

We reported that gymnasts who restricted energy intakes appeared to be at greatest risk.6 We also reported that gymnasts who restricted energy intakes appeared to be at greatest risk.6

S Bass, R Daly
School of Health Sciences, Deakin University, Burwood, Australia; shona@deakin.edu.au

D Caine
Department of Physical Education, Health and Recreation, Westem W Aston University, Bellingham, W Aston, USA

References

www.bjsportmed.com
Spoilsports (understanding and preventing sexual exploitation in sport)


The book is targeted at everyone involved in sport: coaches, doctors, scientists, administrators, parents, and participants.

Celia Brackenridge is internationally acclaimed for her work in uncovering the story of sexual exploitation in sport and offering explanations about why it occurs. She is uniquely qualified by her professional expertise as a scholar in the sociology of sport and by her own experience as coach and athlete at elite level in the sport of lacrosse. It is very brave to pursue a line of research that almost always creates immediate resistance from the audience (“... that can't be happening in our sport/profession”). It is also personally harrowing to investigate this issue with the victims and to find support to cope with what is heard. The production of this book is therefore a culmination of several years of difficult research. It is clear to me that all of us involved in sport must read this book and be aware of the issues. Those of us in higher education must also put this book on the reading list for "ethical issues" topics in curricula for all sport related degrees.

The title is great. Sport should be fun and run within a set of rules that are clear to all. But sexual exploitation within sport is a breach of rules and most certainly will spoil sport (and lives) for many (and who knows how many) individuals. The first two parts of the book provide evidence for the complex issue of sexual exploitation in sport and reasoning about why it may occur. If anyone reads this and continues to think that sexual exploitation cannot be happening in their sport or profession because there are no specific examples, then they must think again. Evidence suggests that exploitation will be happening in all areas of sport, and Brackenridge challenges us to become aware of that and then to take steps to prevent it. The third and fourth parts of the book offer a challenge to change the way sport is managed and how researchers can assist in this change in order that sexual exploitation is dealt with.

Further details: Celia H Brackenridge, Department of Physical Activity and Health Science, University of Glasgow, Scotland, UK; n.mutrie@bio.gla.ac.uk

Reference

Sports Medicine Course
3-10 August 2002, Vancouver, Canada
Further details: Cathy Means; tel: +1 608 263 6637; fax: +1 608 262 8421; email: cjmeans@facstaff.wisc.edu

XVI IEA World Congress of Epidemiology
18-22 August 2002, Montreal, Canada
Further details: Conference Secretariat, Events International Meeting Planners, 759 Square Victoria, Suite 300, Montreal, Quebec, H2Y 2J 7, Canada; tel: +1 514 286 0855; fax: +1 514 286 6066; email: info@eventsinvt.com
Web site: www.iea2002.com

Kinesiology—New Perspectives.
3rd International Scientific Conference
25-29 September 2002, Opatija, Croatia
Further details: Conference Office, Faculty of Kinesiology, 10,000 Zagreb, Horvancakaci zavod 15, Croatia; tel: +385 1 3658 666; fax: +385 1 3634 146; email: natalija.babic@ffk.hr

Evening Tutorials II: The ankle, anatomy, examination, biomechanics, surgical procedures, and rehab, with practical sessions
Autumn 2002, Edinburgh
Further details: Dr Faith Gardner, 73a London Rd, Kilnamrook, Ayrshire; tel: (0)1563 537306

The Queen’s Golden Jubilee and Post Commonwealth Games
BASEM Congress 2002
10-13 October 2002, The Low Wood Hotel and Conference Centre, Windermere, Cumbria, UK

Keynote lecturers
Professor Stuart M McGill (Canada), will lecture on “Low back exercise: the foundation for building the best programme” and present a workshop on “a programme to enhance spine stability”. Assistant Professor Karim Khan (Canada), will lecture on “Better management of tendinopathies” and “Physical activity and bone health”. Other speakers include: Professor Dr med Hans H Paessler (Germany) lecturing on “Current concepts in knee ligament reconstruction following sports injuries” and “Rehabilitation after cruciate ligament reconstruction”; Mr Peter Hamlyn (United Kingdom), Chairman of the Government Ministerial Working Group on Safety and Medicine in Sport, will open and Chair a discussion on progress one year on from the report.

A full programme is available on our web site www.bjsportmed.com.

Further details: Mrs Sue Roberts, BASEM Company Office, 12 Greenside Ave, Frodsham, Cheshire WA4 7SA, UK; tel/fax: +44 (0)1928 732 961; email: basemoffice@compuserve.com

Web site: www.basem.co.uk

Reference

Sports Medicine of Australia
2002 Australian Conference
12-16 October 2002, Carlton Crest Hotel, Melbourne, Australia
Keynote speakers include Dr Bill Evans, Professor Tom Rowland, and Dr Glenn Singleman.

Further details: Kate Gulliver, Sports Medicine Australia, PO Box 237, Dickson ACT 2602; tel: +02 6230 4650; fax: +02 6230 5908; email: sma.conf@sigma.org.au; Carlton Crest Hotel contact details: 62 Queens Road, Melbourne VIC 3004, Australia; tel: +61 3 9526 7470; fax: +61 3 9526 7400.

Celebrating 50 years of Orthopaedics in Singapore
13-16 October 2002, Singapore
In conjunction with the 25th Singapore Orthopaedic Association Meeting, 22nd Asian Orthopaedic Association Meeting, 5th Combined Meeting of Spinal and Paediatric Sections—APOA, 7th Meeting of Sports Medicine Section—APOA, 3rd Meeting of Asia-Pacific Orthopaedic Society for Sports Medicine.

Further details: 2002 COM Secretariat, c/o Dept of Orthopaedic Surgery, National University Hospital, 5 Lower Kent Ridge Road, Singapore 119074, Republic of Singapore; tel: +65 772 4340; fax: +65 778 0720; email: secretariat@soa.org.sg

BASICS Immediate Care Course
21-25 October 2002, Madingley Hall, Cambridge, UK
This five day residential course is primarily aimed at those with extensive experience in immediate care; this course will develop and enhance the necessary skills to deal with all medical and other emergencies in pre-hospital medicine.

Further details: BASICS Education Ltd; tel: +44 (0) 870 165 4999; fax: +44 (0)870 165 4949; email: educ@basics.org.uk
Web site: www.basics.org.uk

References
3rd Québec International Symposium on Cardiopulmonary Rehabilitation Evidence Based Interventions: Science to the Art of Cardiopulmonary Rehabilitation
11–13 May 2003, Québec City Convention Center, Québec, Canada
Call for abstracts deadline is 1 November 2002. The abstract submission form and complete programme can be printed from the web site.
Further details: email: j.j.obin@med.ulaval.ca
Web site: www.ulaval.ca/symp-rehab

The 6th STMS World Congress on Medicine and Science in Tennis in conjunction with the LTA 2004 Sports Science, Sports Medicine and Performance Coaching Conference
Keynote speakers include Professor Per Rennstrom (SWE), Professor Peter Jokl (USA), Dr Mark Safran (USA), Dr Ben Kibler (USA), Prof Bruce Elliott (AUS), and Professor Ron Maughan (UK).
Further details: Dr Michael Turner, The Lawn Tennis Association, The Queen’s Club, London W14 9EG, United Kingdom; email: michael.turner@lta.org.uk

Sports medicine at the University of New South Wales
Masters of Sports Medicine
You don’t have to leave your practice:
• Delivery by distance education
• Videos, CDROMs and online learning
• All aspects of Sports Medicine covered
• Locally organised examinations
• Clinical training
• Certificate and Diploma courses also offered
Further details: Sports Medicine Programs, UNSW Sydney 2052, Australia; tel: +61 9385 2557; fax: +61 9313 8629; email: sportsmed@unsw.edu.au
Web site: www.med.unsw.edu.au/sportsmed

NCPAD NEWS
A monthly publication of the National Center on Physical Activity and Disability. NCPAD is the leading source for information about organisations, programmes, and facilities nationwide providing accessible physical activity and recreation. NCPAD also has a large and growing online library of fact sheets, monographs, and contact information on physical activity and recreation for people with disabilities.
Sign up for this free monthly electronic newsletter by sending an email to: Lister@listserv.uiuc.edu, with this message in the body of the e-mail: SUBSCRIBE NCPAD-NEWS yourfirstname yourlastname.
If you have any difficulties, you can also sign up for the newsletter by going to http://www.ncpad.org/signup

Further details: BASICS Education Ltd; tel: +44 (0) 870 165 4999; fax: +44 (0)870 165 4949; email: educ@basics.org.uk
Web site: www.basics.org.uk

The 5th Asian Federation of Sports Medicine Congress
24–27 October 2002, Seoul, South Korea
Further details: AFSMC 2002 Seoul Secretariat, Hanlim Travel Service Ltd, (c/o Young CHANG) Marine Center New Bldg 5th Fl, #51, Sogong-dong, Chung-gu, Seoul 100–770, South Korea; tel: +822 726 5555; fax: +822 778 2514; email: ychang@katour.com
Web site: http://www.afsmc2002.or.kr

Australian College of Sports Physicians (ACSP) 2002 Conference in conjunction with the New Zealand Sports Medicine Conference
30 October–3 November 2002, Christchurch, NZ
Keynote speaker will be Assistant Professor Karim Khan from Vancouver, Canada.
Further details: Rob Campbell; email: rcampbel@sportsmed-nz.co.nz
Web site: www.acsp.com.au

Skills Course in Musculoskeletal Ultrasound
6–8 January 2003, Oxford, UK
Further details: Alison Davies, Department of Radiology, Nuffield Orthopaedic Centre, Headington, Oxford, OX3 7LD, UK; tel: +44 (0)1865 227765; fax: +44 (0)1865 227347; email: alison.davies@noc.anglox.nhs.uk
BASICS Refresher course
28–29 November 2002, Madingly Hall, Cambridge, UK
This two day course is directed at previous participants on the pre-hospital emergency care and immediate care courses. The aim is to maintain and update skills, incorporating the latest developments in pre-hospital care.
Further details: BASICS Education Ltd; tel: +44 (0) 870 165 4999; fax: +44 (0)870 165 4949; email: educ@basics.org.uk
Web site: www.basics.org.uk

2nd World Congress of Science and Medicine in Cricket
4–7 February 2003, University of Port Elizabeth, Port Elizabeth, South Africa
Further details: Dr Richard Stretch, University of Port Elizabeth, PO Box 1600, Port Elizabeth 6000, South Africa; tel: +27 41 5042584; fax: +27 41 5832605; email: sparas@upe.ac.za
Web site: http://www.fmh.utl.pt/wesf