

LETTERS TO THE EDITOR

Survey of sports injury prevention programmes in the European Community

EDITOR,—I would like to provide a brief report of a survey of sports injury prevention programmes and related research projects in the European Community between September and December 1998.

With the cooperation of partners in the Netherlands (the Netherlands Olympic Committee and the Netherlands Sports Federation), Austria (the Austrian Institute for Home and Leisure Safety), and Belgium (Flanders Red Cross) a questionnaire on sports injury prevention and related research was devised, piloted, and distributed to a sample of 368 sports, health, or safety organisations in Europe. The objective of the study was to determine the number of institutions involved in injury prevention work, and also to seek information on the nature and quality of the work being undertaken.

A total of 86 questionnaires were returned from 77 different organisations in 28 European countries. The largest number of returns was received from Austria (13 returns), Belgium (9 returns), Ireland and the Netherlands (7 returns), and Finland, Germany, and Norway (6 returns each). 87% of the organisations responding to the survey were involved primarily in either sport, safety, or education and research. The other 13% provided health care services.

Forty two out of 86 respondents (58.8% of the returns and 11.2% of the total questionnaires distributed) reported that they were currently running a programme on sports injury prevention or related research. Less satisfactorily, only 14 of the injury prevention projects (16.3% of those responding and 3.8% of the original sample) were based upon research data or had any kind of inbuilt quality control mechanism (such as an assessment of the effectiveness of the programme). Respondents were also requested to send in examples of their injury prevention materials and to provide comments on the provision of injury prevention programmes in their sport. Many of the programmes were found to consist only of warm up and stretching exercises; these were often poorly described and of doubtful value. Few of the programmes were supported by empirical evidence or addressed risk factors specific to individual sports.

Some of the comments returned with the questionnaires included the following:

- "This questionnaire is not relevant to us. Our members look after their own injuries."
- "There are hardly any injuries in our sport." (A sport known to produce a moderately high incidence of overuse injuries.)
- "Injury prevention measures don't work."
- "Stretching and warm up are a waste of time."

Reviews of the literature on sports injuries^{1,2} show that injury prevention measures are most effective when directed at particular sports and population groups, and

that measures directed towards the extrinsic causes of sports injuries (for example, problems with the rules or with personal and playing area equipment) are often the most effective ways of reducing the incidence of sports injuries. Furthermore, a number of studies have failed to show that warm up and high levels of flexibility are effective in reducing the incidence of sports injuries.

Because of the low response rate the findings of our survey must be regarded as preliminary. However, they do suggest the following:

1. A significant number of sporting organisations are ignoring the problem of sports injuries.
2. Injury prevention programmes are often not based upon good empirical evidence and frequently do not address the risk factors specific to particular sports.
3. Quality control and follow up measures are rare in the context of injury prevention programmes.
4. The lack of appropriateness and effectiveness of some injury prevention programmes is being noticed by athletes and sports administrators.

Notwithstanding the limitations of our study, I find the results a source of concern. I would urge your readers to impress upon sporting organisations the need to take injury prevention seriously, and to do all they can to ensure that the measures adopted are based upon the results of empirical research, and that quality control measures are put in place.

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- 1 Renstrom PAFH, editor. Sports Injuries: basic principles of care and prevention. Oxford: Blackwell, 1993.
- 2 Watson AWS. Sports injuries: incidence, causes, prevention. *Physical Therapy Reviews* 1997;2: 135-51.

Use of imaging data for predicting clinical outcome

EDITOR,—I write with reference to the letter of Khan and Kannus.¹ I concur that Gibbon and colleagues are not in a position to draw a conclusion on the diagnostic ultrasound screening of athletes suggesting that sonographic abnormality will lead to a complete rupture. However, I also do not fully agree with the authors of the letter that tissue based pathologies found by Kannus and Jozsa² may be more subtle than can be detected by sonography.

To explain, I feel that part of the problem, resulting in this divergence of opinion, lies both with the diversity of the diagnostic ultrasound equipment used and the skill of the operator. There is little standardisation of either of the techniques used by operators or, in particular, equipment specification. To this end, articles that report studies correlating diagnostic ultrasound findings with other clinical markers have to be carefully interpreted.

Colleagues and I have been regularly performing musculoskeletal ultrasound examinations, particularly on Achilles and supraspinatus tendons. We regularly visualise degenerative changes in asymptomatic tendons that do not go on to rupture or produce significant problems.

We have conducted a three year prospective controlled study that linked diagnostic ultrasonography data to clinical presentation/symptoms. The results showed a strong correlation between the ultrasound findings and the clinical markers used, such as pain, stiffness, and functional ability.

To conclude, ultrasound is a useful and I believe an effective tool to aid in the diagnostic process to evaluate tendon pathology. However, it is only part of the process and, in isolation, can be as misleading as it is helpful.

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- 1 Khan K, Kannus P. Use of imaging data for predicting clinical outcome. *Br J Sports Med* 2000;34:73.
- 2 Kannus P, Jozsa L. Histopathological changes preceding spontaneous rupture of a tendon. *J Bone Joint Surg [Am]* 1991;73:1507-25.

Denial of mental illness in athletes

EDITOR,—Professor Schwenk makes the important point that elite athletes are not immune to serious mental illness and that many of the symptoms of overtraining may, in another context, be considered diagnostic of depression.¹

I have usually considered the following to be a helpful differentiator between the two conditions. Patients with depression will almost always resist any suggestion that they may be more physically active. In contrast, the complaint of the athlete with what has been termed either overtraining or the chronic fatigue syndrome will usually be that they desperately wish to exercise. However, whenever they do exercise, they become profoundly fatigued such that the exercise is not pleasant and further compounds their state of chronic fatigue.

However, after reading Professor Schwenk's article, it struck me that, as fatigue is a symptom that is perceived centrally in the brain, it may be that this distinction is not as clear cut as one may conclude. Could exercise intolerance, as opposed to exercise avoidance, be a symptom of depression in elite athletes?

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- 1 Schwenk TL. The stigmatisation and denial of mental illness in athletes. *Br J Sports Med* 2000;34:4-5.

BOOK REVIEWS

Facilitated stretching. 2nd ed. Robert E McAtee, Jeff Charland. (Pp 143; soft cover; £13.95.) Leeds: Human Kinetics Europe Ltd, 1999. ISBN 0-7360-0066-6.

This is the second edition of a book previously published in 1996 which has been reorganised to make it easier to use and broaden the scope of stretches presented.

Chapter 1 begins with the historical basis of PNF, discussing the work of Kabat and later Knott and Voss. It then goes on to explain the myotactic stretch reflex and the

role of muscle spindles, together with the role of the Golgi tendon organ in the inverse stretch reflex (autogenic inhibition) and its function in Chaitow's muscle energy technique, where muscle elongation takes place during "post-isometric relaxation".

Chapter 2, "Stretching basics", skims over the subject of whether it is necessary to stretch. Although it is admitted that there is no clear agreement of the value of stretching, personally I would have liked to have seen quoted some references both for and against stretching. Again in this chapter the ideal scenario is stated "stretch after warming up, exercise, then stretch again after exercise as part of the cool-down process" but then this is followed by "If time is a factor . . . we recommend skipping the pre-exercise stretching and concentrate on the post-exercise stretching." As a physiotherapist, I would advise the opposite—that is, stretch before exercise—as I feel this helps to reduce injury. This apart, the rest of the chapter is well written and briefly considers several different types of stretching, concluding with a detailed description of how to carry out the techniques for both therapist and subject, emphasising the importance of positioning to minimise the risk of injury to both, and how to isolate individual muscles.

The final section of part I describes patterns of movements for both upper and lower limbs with useful black and white photographs to assist with understanding.

Part II of the book contains the stretches and is divided into chapters on stretches for the lower extremity, upper extremity, torso, and neck. The general layout begins with the anatomy of the muscle group, accompanied by a line drawing, a table that shows origin, insertion and action, and functional assessment, showing normal ranges of movement. The stretches are then described with relevant photographs showing the positions of subject and partner. Finally there is a "self stretch," with description and black and white photograph.

The final chapter in part II is entitled "PNF in physical therapy" and differs from the previous section of the book, as it deals with treatment of injury and the role of PNF in rehabilitation, providing case presentations and treatment programme.

In a literature review in the appendix it states that "eight of the fourteen studies reviewed (57%) found that PNF stretching is significantly more effective for increasing ROM and flexibility than static, ballistic or passive stretching" but does not provide sufficient information for one to read these studies and compare the protocols used. Furthermore the number of references used throughout the book is comparatively small considering the wealth of studies now being published on the subject of flexibility.

Overall I feel the book is well written and informative supported by good drawings and photographs. My only reservation is the cover of the book. Although the second edition has been published this year, the colours, style of presentation, and photographs give the impression that the book belongs in the 1970s! Notwithstanding this, I feel the book will be of great value to everyone working within the field of rehabilitation and sports injury.

Analysis

| | |
|-------------------|--------|
| Presentation | 15/20 |
| Comprehensiveness | 15/20 |
| Readability | 17/20 |
| Relevance | 17/20 |
| Evidence basis | 13/20 |
| Total | 77/100 |

IAN HORSLEY

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HIV/AIDS in sport. Impact, issues and challenges. G Sankaran, K A E Volkwein, D R Bonsall. (Pp 137; soft cover; £21.50.) Leeds: Human Kinetics Europe Ltd, 1999. ISBN 0-88011-749-4.

The complexity of the issues surrounding HIV and AIDS in sport is dealt with in a concise yet comprehensive manner in this book. The issues range from epidemiology and immunology of HIV to ethical and legal matters. The chapter dealing with the basic science of HIV was informative and yet written in such a way as to be within the grasp of someone not in that field. A similar section dealing with exercise and immune function was well covered, and I agree with the conclusion that more work should be carried out in this particular area. Personal accounts of both amateur sports people and international sport stars were insightful, but lacked depth and skimmed the surface of the full implications in this difficult area. However, these may lie beyond the scope of such a broad ranging book. The chapters dealing with legal and ethical issues were, on the whole, difficult to read and perhaps not geared for the layman. The helplines would only really be appropriate to readers living in the United States. This and the high price are the only criticisms I have of a neat and well presented book that is bound to become well thumbed by those in the field.

Analysis

| | |
|-------------------|--------|
| Presentation | 15/20 |
| Comprehensiveness | 15/20 |
| Readability | 12/20 |
| Relevance | 18/20 |
| Evidence basis | 15/20 |
| Total | 75/100 |

BRENDON MURPHY

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Boxing and medicine. Ed R C Cantu. (Pp 207; £28.50.) Leeds: Human Kinetics Europe Ltd, 1995. ISBN 0-87322-797-2.

I enjoyed reading this book. A book consisting solely of accounts of boxing related injuries would probably have been a chore to read and reinforced my prejudices about a pastime in which participants have to punch their opponents to score points. However, this is a well balanced book that sets out the medical aspects of boxing in a logical fashion.

The differences between amateur and professional boxing are explained, and there are chapters that address the ethical and social aspects of the sport in America. Robert Cantu, the editor, a past president of the American College of Sports Medicine and medical director of the National Centre for Catastrophic Sport Injury Research, has overseen contributions from a number of eminent people. Experts look at the medical

problems associated with boxing and what evidence there is to confirm how they occurred. It is pointed out that there is a lack of well controlled studies of boxing injuries. The Johns Hopkins Medical Institute study of central nervous system function in amateur boxers is a linear prospective investigation, which was reported by two of the team in the chapter discussing the risk of brain damage. Initial findings (1994) of impaired cognitive function being related to the number of previous bouts but reported as being not clinically significant needs further elucidation, and follow up results should be interesting.

The editor points out that safety changes have been made in American football, professional boxing, and, in particular, amateur boxing through informed medical advice. He would like to see the safety and preventive medicine aspects of the amateurs incorporated into the professional world, and the final chapter of the book is an excellent account of how professional boxing could be made safer. Measures are outlined with reasons why they are necessary.

The IOC medical commission does not now permit theophyllines and systemic steroids, which are suggested as permissible for asthma treatment. Otherwise the role of the ringside doctor is extremely detailed, comprehensive, and includes an excellent account of safety measures that need to be present.

Boxing is an extremely contentious subject, but this book will be of interest to any sports physician involved in boxing or who at least wishes to be able to take part in reasoned debate.

Analysis

| | |
|-------------------|-------|
| Presentation | 17/20 |
| Comprehensiveness | 17/20 |
| Readability | 16/20 |
| Relevance | 18/20 |
| Evidence basis | 17/20 |

IAN MCGIBBON

Kircudbright

SYMPOSIUM REPORT

Symposium on football medicine

This one day symposium took place at Liverpool Medical Institution on 16 March 2000. A total of 65 delegates from the whole spectrum of sports physicians, surgeons, and therapists across the United Kingdom attended, in addition to local general practitioners.

Mr Steve Bollen debated the management of ankle ligament injuries; a sound evidence basis substantiated his conclusion that, although surgery for chronic instability and pain does afford good results, operative intervention has little place in the acute management of even a grade three injury.

Professor David Chadwick reported on the latest Australian data from the Victorian State Injury Surveillance System, and the concept of "convulsive convulsions" was discussed. He suggested that the second impact syndrome may be a myth, as it is not reported

in certain sports such as boxing where it might be expected.

Professor Wayne Gibbons demonstrated the use of ultrasound—as scanners become cheaper they could be used for “near-patient testing”. The demonstration on MRI challenged anatomy textbooks, in particular, the existence of the conjoint tendon which may be an embalming artefact.

Dr John Hunter’s presentation on the “Effects of exercise on the gut” included joggers’ diarrhoea, and it seems that it is not a general effect of exercise, but certain people such as the young and poorly trained may be more susceptible.

Mr David Rees from the Elite Sports Assessment Centre showed the facilities and techniques used at their sports injuries laboratory in Oswestry. In particular, anterior cruciate ligament rehabilitation and assessment was discussed.

The symposium concluded with Professor Klenerman discussing foot and ankle injuries. Early controlled mobilisation was preferred to immobilisation in plaster after Achilles tendon repair.

STEVE McNALLY

General practitioner and Medical Officer to
Liverpool FC Academy

NOTES AND NEWS

Annual meeting of the American College of Sports Medicine

A large contingent from the UK travelled to the annual meeting of the American College of Sports Medicine. Nic Mafulli gave the annual BASEM lecture to a select group of tendon experts, and many other prominent BASEM members gave important presentations. The number of UK participants at this meeting has increased greatly and already a number of research groups are planning to contribute to next year’s meeting in Baltimore.

Guidelines for advising on injury treatment and prevention

There is increasing awareness in the sporting and medical community of the need for medical input in injury treatment and prevention. The British Medical Association is currently considering the need to issue guidelines to doctors who may be acting, or interested in acting, as a medical advisor to sports clubs or at other public events in a voluntary, rather than a professional full time capacity. It is envisaged that the issues covered would include reference to the courses run by the Football Association, the National Sports Medicine Institute, and any other relevant organisations. Such issues as insurance, responsibilities of the doctor, relationship with competitors’ GPs, legal and contractual arrangements, responsibility for crowd injuries, and the need for knowledge of injuries specific to the sport/event would be covered. It is likely that any guidelines issued would appear on the BMA website with links to other organisations and would be sent to interested doctors. The British Medical Association has consulted with a number of bodies about the guidelines, including the

RCGP sport and exercise medicine working group, BASEM, and NSMI. Any individual who wishes to make their views known can contact any of these groups or may wish to contact Nick Harrison at the BMA on 020 7383 6225 or nharrison@bma.org.uk.

Stimulated by the articles on education in this issue?

The School of Postgraduate Medical and Dental Education at the University of Wales College of Medicine (UWCM) recently advertised their Diploma/MSc in Sports Medicine. The purpose of this course is to educate doctors and chartered physiotherapists who wish to develop their expertise in sports medicine. It will be organised primarily as an open distance learning programme and is PGEA approved. The cost is £1800 for national students and £3585 for international students. Further details are available from Mr Gareth Irwin, University of Wales Institute, Cardiff, Cynod Road, Cardiff CF23 6XD; tel: 0292 041 6537; email: Girwin@uwic.ac.uk.

BASEM 2000 conference

There is already considerable interest in the BASEM 2000 conference in Tewkesbury on 3–5 November. The congress continues to develop and the combination of outstanding international speakers, the very best of research from the UK, and a vibrant social programme ensures its continued success. The current interest and controversies surrounding the management of head injury in sport will attract considerable academic and media interest when Dr Bob Cantu, one of the leading researchers from the USA, addresses this topic on the afternoon of Saturday 4 November. Our other keynote speaker, Professor Norbert Bachl from Austria, promises a fascinating lecture on the effect of living on Space Station Mir. We also look forward to hearing about European developments in sport and exercise. Further details are available from Mrs Sue Roberts, BASEM Company Office, 12 Greenside Avenue, Frodsham, Cheshire WA6 7SA. Tel: 01928 732 961; email: basemoffice@compuserve.com.

CALENDAR OF EVENTS

British Association of Sport and Exercise Sciences Annual Conference

29 August–1 September 2000; Liverpool, UK
Further details: BASES 2000, Event Management Services, Egerton Court, 2 Rodney St, Liverpool L3 5UX. Tel: 0151 231 3585. Fax: 0151 709 5057. Email: ems@livjm.ac.uk

Diploma in Sport and Exercise Medicine, Great Britain and Ireland

This two part diploma examination will be held twice a year. Part 1 of the examination, consisting of a multiple choice question and

short essay paper will be held in April and September in London, Glasgow, or Dublin. Successful candidates will proceed to part 2 of the examination in either June or November. This consists of an oral and a clinical, based on two OSCEs, and will be held at a single centre which will rotate every six months
Further details: Examinations Department, Royal College of Surgeons in Edinburgh, Nicolson Street, Edinburgh EH8 9DW.
Website: www.rcsed.ac.uk

2000 Pre-olympic scientific congress

7–13 September 2000; Brisbane, Australia
Themes running through the programme include:

- Role of the Olympic Games in promoting health for all
- Impact of elite athlete sports medicine on the general community
- Ethical issues and ergogenic aids
- Sports medicine, sports science, and physical activity in the new millennium
- Funding of elite sports versus physical education
- Regional issues and developing countries
- Sport for whom? Nations, corporations, spectators or athletes?
- Manipulating athletic bodies: science, training, technology, and drugs in the 21st century.

Further details: Congress Manager, Sports Medicine Australia, PO Box 897, Belconnen Act 2616, Australia. Tel: +61 2 6251 6944. Fax: +61 2 6253 1489. Email: smanat@sma.org.au

19th congress of sports medicine

13–14 October 2000; Bruges, Belgium
Topics include:

- Sports physiotherapy
- Children and sports
- Arthroscopy and sports traumatology
- Medical ethics, doping, and sports

Further details: Dr Michel D’Hooghe, President Brusport, Hospital AZ Sint-Jan AV, Ruddershove 10, B-8000 Brugge, Belgium. Tel: +32 50 452230. Fax: +32 50 452231. Email: brucosport@azbrugge.be
Website: <http://user.online.be/brucosport/index.htm>

1st Moscow International Forum: Sport medicine science and practice on the eve of the 21st century

20–25 October 2000; Moscow

Further details: Organising Committee of the Forum, Yachshuk AM, Zemlyanoi Val 53, Moscow. Tel: +7 928 29 92

Symposium: training, overtraining, and regeneration in sport—from the muscle to the brain

26–28 October 2000; University of Ulm, Germany

Topics include:

- Training and regeneration in sports
- Metabolism, training, and monitoring
- Cellular protection and immunological function
- Muscular adaptations and stress proteins and cytokines

- Peripheral mechanisms for adaptation and regeneration
- Hypothalamic hormonal regulation and the central nervous system

Further details: Dr J M Steinacker, Abt. Sport and Rehabilitationsmedizin, Medizinische Klinik und Poliklinik, Universitätsklinikum Ulm, 89070 Ulm, Germany. Tel: +49 731 502 6966; fax: +49 731 502 6686; email: org.sportmed@medizin.uni-ulm.de
Website: www.uni-ulm.de/sportmedizin

British Association of Sport and Medicine congress

3–5 November 2000; Tewkesbury, UK

Lectures include:

- Muscular conditioning during space station MIR flight
- Health enhancing physical activity—an upgrowing challenge for sports medicine

Further details: Mrs Sue Roberts, BASEM Company Office, 12 Greenside Avenue, Frodsham, Cheshire WA6 7SA. Tel/fax: 01928 732 961; email: basemoffice@compuserve.com

Website: www.pmhcs.com/basem

20th national congress of the Société Française de Médecine de Sport: Physical activity, sport and health

6–8 December 2000; Paris, France

Topics include:

- Physical activity and fertility
- Sport and aging
- Rehabilitation

Further details: Pranacom, 40 rue des Blancs Manteaux, 75004 Paris, France. Email: pranacom.ifrance.com
Website: www.sfms.asso.fr

NSMI/BASEM Current concepts meeting on tendinopathies

8–9 December 2000; Cambridge, UK

Subjects covered include:

- Tendon science
- Achilles tendon
- Rotator cuff

Further details: Barry Hill, NSMI Medical Education, Medical College of St Bartholomew's Hospital, Charterhouse Square, London EC1M 6BQ. Tel: 020 7251 0583 x237; fax: 020 7251 0774; email: barry.hill@nsmi.org.uk
Website: www.nsmi.org.uk

CORRECTION

The authors of Khan *et al* (*BJSM* 2000;34:81–83) have conceded an error. They referred to patellar tendon allograft instead of patellar tendon autograft, and regret any confusion they may have caused.

True or false?—answers

(T = true; F = false)

p 246: Pedersen BK, Toft AD. Exercise effects on lymphocytes and cytokines
(1) T; (2) F; (3) T; (4) F; (5) F.

Essay question—answer

p 246: Pedersen BK, Toft AD. Exercise effects on lymphocytes and cytokines
Exercise induces increased levels of cytokines in the blood. The levels of TNF, IL-1, IL-6, IL-1ra, IL-8, IL-10, MIP-1 β and sTNF-R increase. IL-6 increases more than any other cytokine, the increase being up to 100-fold that measured at rest.

Multiple choice—answers

p 252: Rath E, Richmond JC. The menisci: basic science and advances in treatment

1 (e); 2 (c); 3 (a); 4 (c); 5 (b).

Essay questions—answers

p 252: Rath E, Richmond JC. The menisci: basic science and advances in treatment.

- 1 This patient might present with recurrent joint line pain, episodic swelling, clicking. Often there will be no or trivial trauma. Physical examination may disclose an effusion, with joint line tenderness, and pain on forced flexion.
- 2 The meniscus serves several important functions, most notably force distribution and joint surface protection. Preserving healthy meniscal tissue will reduce the long term risk of osteoarthritis.