



International Society of Biomechanics Newsletter

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AFFILIATE SOCIETIES OF ISB:

American Society of Biomechanics; British Association of Sport and Exercise Sciences; Bulgarian Society of Biomechanics; Canadian Society of Biomechanics/Société canadienne de biomécanique; Chinese Society of Sports Biomechanics; Comisia de Biomecanica Inginerie si Informatica (Romania); Czech Society of Biomechanics; Japanese Society of Biomechanics; Korean Society of Sport Biomechanics; Polish Society of Biomechanics; Russian Society of Biomechanics; Société de biomécanique (France).

**From the President- Peter Cavanagh
Membership has its privileges**

By now, you will have received your 1996 membership dues notice from Treasurer Graeme Wood and I would like to use this event as a stimulus to air a few observations regarding the status of Society membership.

First, I would obviously like to encourage you to respond to Graeme's request promptly in order to save the Society the expense and time of sending a follow up request. Second, I would ask that all of you act as ISB ambassadors among your colleagues and students and that you encourage them to join the ISB. Over the next 18 months, we have the goal of increasing our membership by 200 members. This is not an unreasonable goal - given that there are over 2500 subscribers to the BIOMCH-L listserver and yet, at the end of 1995, we had a membership of only 866 (a number of whom were in arrears with their dues - see below). Student membership is particularly important as the students of today will be the Council members of tomorrow.

At the present rates of approximately \$US 40 for full membership and \$US 19 for student membership in the ISB (exact amounts depend on the value of the Australian dollar), an ISB subscription has to be one of the best values in the scientific community. As I review some of my own memberships in other scientific groups, I note costs of \$US 200 for the Orthopaedic Research Society and \$US 125 for the American Diabetes Association. While both of these memberships do include a journal subscription, ISB membership also provides a number of important benefits:

PRESENT:

- ◆ Reduced journal subscriptions (Journal of Biomechanics, Clinical Biomechanics, Journal of Applied Biomechanics)
- ◆ Reduced fees at ISB congresses and ISB sponsored conferences (such as the upcoming Fourth International Symposium on 3D Analysis of Human Movement in Grenoble June 30th-July 3 1996, or next year's XVI Congress of the ISB in Tokyo August 25-29, 1997)
- ◆ Opportunity to join the ISB working and technical groups (groups on 3-D analysis of human movement, computer simulation, and functional footwear currently are active) 4 copies of the ISB Newsletter per year

UPCOMING:

Member only access to some important categories of information in the ISB Biomechanics Data Bank on the World Wide Web. At the moment, there is open access to all information on the page but we intend to provide certain "member only" services in the near future. These will include:

- ◆ CT and MRI scans.
- ◆ Musculoskeletal models
- ◆ Anthropometric data
- ◆ Kinematic and kinetic data
- ◆ Unified gait data sets
- ◆ Notes from Tutorials at ISB Meetings
- ◆ ISB Newsletters

In addition to the individual professional benefits, there is very real satisfaction to be gained from being part of a Society that is helping to nurture the science of biomechanics at the international level. Among such activities are:

- ◆ Sponsorship of the popular listserver BIOMCH-L.
- ◆ An active program of support for scientific efforts in economically developing countries.
- ◆ A series of awards which recognize excellence at a number of levels from student to senior scientist.
- ◆ A book series which publishes important collections of material not available elsewhere (such as the recent: Biocomotion: A century of research using moving pictures.)
- ◆ Eleven affiliated national societies of Biomechanics providing a network for international cooperation.
- ◆ Leadership in publishing standards and terminology in the field of Biomechanics.

Membership information is available on our Web page (<http://www.kin.ucalgary.ca/isb>) or directly from Graeme Wood via E-mail (gwood@uniwa.uwa.edu.au), Air Mail (Department of Human Movement Studies, University of Western Australia, Nedlands, WA 6009, Australia) or Fax: +61-9-380-1039. Please help us make this membership drive a success and please consider acting as a recruiter for new members. If only one in four of our present members introduced one new member each to the Society, our goals would easily be achieved.

One final point to those who are significantly overdue in their payment of dues. For the last decade, we have taken a fairly charitable approach to dues collection. If members did not pay their dues, newsletters would continue to arrive, and

most of the other benefits of membership continued. At a meeting in Jyvaskyla following the 1995 Congress, Council decided that this approach was no longer fair to the members who were paying their dues and neither was it good for the continued health of the society. We are now moving to implement that decision and will be dropping former members from our files when they are more than six months in arrears with payment of dues .

Please join us, and bring a friend!

From the Editor - Mark Grabiner
"Here we go..."

This issue of the ISB Newsletter represents a change of the guard, so to speak, as it is my first effort as Editor. For the past five years, Graeme Wood has served you and the Society in a dual, and difficult role, that of Newsletter Editor *and* Treasurer. His are difficult shoes to fill in the capacity of Newsletter Editor as he leaves a legacy of a quality publication that we all looked forward to receiving and perusing. I'd like to share with you those things that are planned for the Newsletter over the next three years. Basically, the Newsletter is not broken, therefore I do not plan to fix it. The format of the Newsletter will remain as it has been, a mechanism to provide up-to-date information to members related to Society issues, affiliate Society interactions, upcoming meetings and deadlines, job announcements and sometimes, as in the present Newsletter, funding opportunities.

Naturally, I want to encourage (with much enthusiasm) each ISB member to contribute to the Newsletter. After all, the Newsletter belongs to, and should service the membership. For example, I hope that graduate students continue to send synopses of their research. In that vein, I hope to be able to regularly publish updates on the activities of the growing student network. Perhaps members will consider sending in their laboratory's website so that other members can pay them a virtual visit. Do you have a hypothesis, observations, or comments you'd like to open up for discussion using the Newsletter as the conduit?. Similarly, are there issues that you would like to see openly debated by designated experts in the Newsletter?

I am particularly interested in the funnier side of ourselves and our scientific endeavors. Have any of you had the misfortune of blowing up your

laboratory? (I mention this as the smoke is still clearing from a medical student's experiment gone awry at a nearby research institution). Feel free to send me any of your humorous research and/or education-related anecdotes. Also, I am in need of an individual, or individuals, with both an artistic flair and a sense of humor targeted toward science in general, and biomechanics in particular- send me your cartoons. There are also some other types of features included in this issue for which I request your support. These relate to "Award Sightings" and "Members in the Limelight: whether they like it or not".

I am in the process of enlisting editorial help for the Newsletter. I am the first to admit that I am somewhat dissociated from some of the important events going on in places more distant, like Europe, Asia, and Kentucky. Maarten Bobbert, from the Institute for Fundamental and Clinical Movement Sciences in Amsterdam, has graciously agreed to provide assistance regarding European events that will be of interest to members. I wish to extend to him at the outset, a grateful "thank you". His input has been extremely helpful. However, the Newsletter is in need of an Asian correspondent so if you are interested in this exciting offer of much work with little reward, please E-mail me.

And now I'd like to make a commentary, which is possible because of the outstanding ISB Congress held last summer in Jyväskylä. I would guess that fewer biomechanists suffer than the average person from the paralyzing fear brought on by specter of public speaking. It is not surprising, but curious nonetheless, that public speaking invoked a greater "scare index" (at least in Americans) than death itself in a large sample of average subjects. This reminds me of Mark Twain who had written, long before this study was reported, "There are three kinds of lies; lies, damned lies, and statistics." In the United States, a conventionally proposed, yet likely untested solution, to the dilemma of being terrified of public speaking yet having to deliver a presentation is to imagine the audience naked. I wonder if this is a peculiar to the United States. I can not say that I am frightened by public speaking although I do experience something similar to the pregame jitters. At last summer's ISB Congress I was introduced to the Finnish tradition of sauna, a room heated to approximately the temperature of the Earth's core and in which, among other things, one sweats without reserve. The prodigious amount of heat and sweat, of course, makes clothing an

unnecessary burden, not to mention the buttons and zippers that would reach extreme temperatures. Thus, the *sauna* provided me with my first experience of having presented a scientific presentation to an audience with whom I had spent any significant time undressed. That the presentation was neither affected nor unaffected by the *sauna* experience is not the point of all of this. The point is that the above paragraph is merely an example of what you may be subjected to over the next three years if I don't receive submissions from you!!

Looking forward to hearing from you.

From the Council- Ton van den Bogert Update on BIOMCH-L
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What is Biomch-L?

Biomch-L is an electronic discussion forum, under the patronage of the ISB. It allows people who have a common interest in biomechanics and related fields to communicate by electronic mail (E-mail). Membership is free. The main purpose of Biomch-L is to act as a 'bulletin board'. If you send a message to the address BIOMCH-L@HEARN.BITNET or BIOMCH-L@NIC.SURFNET.NL, this message will be distributed by the mainframe computer in Nijmegen, Netherlands, to all subscribers. Biomch-L should *not* be used for commercial advertising. Unsolicited commercial information can only be contributed to the yellow pages directory, and such contributions are posted by one of the list moderators. However, we encourage list members with commercial affiliations to participate in any discussions. Secondary functions of Biomch-L are the 'E-mail directory' (white pages and yellow pages), and a 'file server' for software, archives, and other information.

History

Biomch-L was initiated in 1988 by the late Herman J. Woltring, who contributed most of the postings at a time when E-mail was still not widely used in the biomechanics community. In recent years, Biomch-L has attained a certain critical mass and traffic has increased from 50 kB/month to 500 kb/month. At the same time, the signal-to noise ratio is continuously improving. Biomch-L is

considered to be one of the best scientific discussion groups on the Internet. The group enjoys regular contributions from excellent researchers. At the time of writing (January 1995), there are 2585 subscribers in 49 countries. Biomch-L mail is typically 4 to 6 messages per day. Computer facilities have been generously provided by the University of Nijmegen in the Netherlands.

How to join

Subscribing to Biomch-L is as easy as sending a one-line E-mail message, for example:

SUBSCRIBE BIOMCH-L Lisa Simpson
(University of Springfield)

Use your own name and (optional) affiliation, and send this message to LISTSERV@nic.surfnet.nl. Do not try to send such messages to BIOMCH-L@nic.surfnet.nl. That address is intended for public postings, not for administrative messages. After sending this request, LISTSERV will always reply with further instructions, even if a syntax error was made. If no such reply is received within 24 hours, there is no functioning E-mail path between LISTSERV and your site. Contact your system administrator for assistance. Other useful LISTSERV commands are: INFO REFCARD (a short LISTSERV manual) REVIEW BIOMCH-L (COUNTRIES (list of subscribers, 'white pages') GET BIOMCH-L GUIDE (strongly recommended for new users) GET BIOMCH-L YPAGES (to get the yellow pages) GET BIOMCH-L FILELIST (to see what is on the file server)

Any number of LISTSERV commands may be combined in one E-mail message. Command names and file names are case-insensitive.

What's new?

The growth of Biomch-L has created some administrative problems. It is no longer feasible to troubleshoot all E-mail delivery problems. Instead, subscribers with delivery problems on three successive days are removed from the mailing list, unless the problem is immediately obvious. If this happens to you, just try to re-subscribe as described above. The Biomch-L archives contain a wealth of knowledge and information. Access to this information is now much improved over the previous E-mail based method. A WAIS (Wide Area Information Service) interface has been set up

as part of the new ISB Web server. This allows searching of the archives using combinations of key words. Postings matching the search query can be ranked according to various criteria and retrieved by 'point-and-click'. The Biomch-L Web page can be found at <http://www.kin.ucalgary.ca/isb/biomch-l.html>. This web page also provides access to all other information about Biomch-L, as well as to the ISB home page. One of the 'spin-offs' of Biomch-L is the Biomechanics World Wide web site (<http://dragon.acadiau.ca/~pbaudin/biomch.html>), edited by Pierre Baudin, which provides links to laboratories, individual researchers, and companies across the world. Another web page has been set up for the Biomch-L Yellow Pages:

<http://www.orst.edu/~bowenk/byp.html>, edited by Karen Marie Bowen. In the beginning of 1996, we will install -- for at least a trial period -- a gateway between the Biomch-L mailing list and a new Usenet newsgroup bit.listserv.biomch-l. This will allow access to Biomch-L using newsreader software, or a 'news:bit.listserv.biomch-l' URL on a Web browser. Some users will prefer Usenet because of the possibility for 'threading', i.e. following discussions about one topic, while ignoring other postings. Usenet also prevents mailbox overload and delivery errors. Postings originating from Usenet will be fully moderated, in order to maintain the quality of the contributions. Note that LISTSERV will continue to operate as before, and all postings will be archived. If you have questions about Biomch-L, contact one of the moderators:

Ton van den Bogert <bogert@acs.ucalgary.ca>
Krystyna Gielo-Perczak <kgp@infopol.com>
Christoph Reinschmidt
<reinschm@acs.ucalgary.ca>
Pierre Baudin <pierre.baudin@acadiau.ca>
Michael Young <mflyoung@mtu.edu>

Job Market

Assistant and Associate Professor: The Department of Kinesiology and The Center for Locomotion Studies (CELOS) at Penn State University are seeking two tenure-track faculty members who will each divide their time equally between teaching in the Department and conducting research at the Center. The successful candidates will be expected to teach at the graduate and

undergraduate levels, to contribute to the academic life of the department, and to attract external funding for their research programs. We are seeking individuals who can complement the efforts of existing faculty and invite applications from a range of relevant disciplinary perspectives. Send a curriculum vitae, three samples of recent publications, and the names of three individuals who can be contacted for a recommendation to: Peter R. Cavanagh, Ph.D.; Chair of Faculty Search Committee; Center for Locomotion Studies; Penn State University; Box A; Room 10 IM Building; University Park, PA 16802-2002. Initial contacts to PRC@psu.edu are encouraged.

Project Director (Ph.D.): Albert Einstein Medical Center and the Moss Rehabilitation Research Institute seek a project director for a 2-year federally funded research project on overuse syndromes in post-polio survivors. The project director is full time and will supervise staff including physical therapist/PT aide, physician's assistant, nurse, research fellow, and data entry, clerical, and data analysis personnel. The opportunity exists to develop independent research directions in mobility rehabilitation and become a permanent faculty member of the Moss Rehabilitation Research Institute. The appropriate candidate will have a doctoral degree in kinesiology or a related field, experience in managing a multi-person research effort, and skills in research design, data analysis, and writing. Send cover letter to: Dr. J. Whyte, Director Moss Rehabilitation Research Institute 1200 W. Tabor Rd. Philadelphia PA 19141.

Associate Research Scientist (PhD): Ph.D. in mechanical or biomedical engineering, or equivalent combination of education and experience required. Research interests of the candidate should be oriented towards the field of orthopaedic biomechanics and biomechanical measurements, as well as expertise in mechanical design of experimental apparatus for novel musculoskeletal measurements. Contact Dr. T. Brown, Orthopaedic Biomechanics Laboratory, 2430 Steindler Bldg, Iowa City, IA 52242, tel: 319-335-7528, E-mail: tom-brown@uiowa.edu.

Assistant Professor (Ph.D.): The Department of Kinesiology at Louisiana State University is seeking applicants for a tenure track Assistant Professor

position in Motor Control/Biomechanics. Send a cover letter, CV, transcripts, and 3 letters of recommendation to Dr. Richard Magill, Dept. of Kinesiology, Louisiana State University, Baton Rouge, Louisiana, 70803, tel: (504) 388-3680, Fax: (504) 388-3680, E-mail hpmgil@lsuvm.lsu.edu

Assistant Professor (Ph.D.). The School of Human Kinetics at the University of British Columbia invites applications for a full-time, tenure-track, faculty position in the area of human factors (especially neural control of muscle activity, biomechanics, motor learning or developmental biodynamics). Send a letter of application including a description of research interests, a curriculum vitae and copies of recently published articles (if available), names and contact information (address, phone, FAX, and E-mail addresses) of three referees who have been asked to provide supporting letters for the application to Dr. A. Martin, Acting Director, School of Human Kinetics, 210 War Memorial Gym, 6081 University Boulevard, Vancouver, B.C., Canada V6T 1Z1, tel: 604- 822-2767, Fax: 604-822-2767, E-mail: amartin@unixg.ubc.ca

Assistant or Associate Professor (Ph.D.): The Department of Mechanical Engineering and Center for Biomedical Engineering at the City College of New York, invites applications for a tenure track faculty position in the area of Biomechanical engineering, either in biomaterials or biomechanical-electrical systems. Applicants should have a Ph.D. Degree (at the time of appointment) in either Biomedical engineering, in Mechanical engineering or a closely related field. Send a resume, a one page statement of research and teaching interests and career objectives, and the names, addresses and telephone numbers of four references by March 15, 1996, to Dr. A. Sadegh, Chairman, Search Committee, Dept. Of Mechanical Engineering, City College of New York, Convent Ave. And 138th St., New York, NY 10031.

Assistant/Associate Professor (Ph.D.): The Department of Mechanical Engineering at the State University of New York at Stony Brook is accepting applications for a tenure-track faculty position in the area of Biomechanics. The principal commitment will be to the recently established interdisciplinary graduate program in Biomedical Engineering. Preference will be given to those with

a research emphasis in cell/tissue mechanics, or cell/tissue engineering. Candidates should hold a Ph.D. or equivalent in Mechanical Engineering or a closely related discipline. Send a detailed resume which includes a list of publications and names of at least three references to: Dr. C. Rubin, Search Committee Co-Chair, Director, Program in Biomedical Engineering, Health Science Center T18-030, State University of New York, Stony Brook, NY, 11794-8181

Assistant Professor (Ph.D.): Tenure eligible position in the Department of Exercise and Sport Sciences at Ithaca College. Required qualifications include an earned doctorate with an emphasis in motor control/learning, evidence of teaching experience, and promise of scholarly activity. Send a letter of application and credentials, including vita, transcripts, and at least three letters of reference to: Dr. K. Scriber, Chair, Search Committee, Department of Exercise and Sport Sciences, Ithaca College, Ithaca, NY 14850-7193.

Associate/Assistant Professor (Ph.D.): Primary responsibilities involve teaching undergraduate and graduate courses in biomechanics. Individuals qualified to teach an additional specialization area such as motor learning, athletic training, adapted physical education or research design/applied statistics will be given preference. Send letter of application, resume, transcripts, and three letters of reference to: Dr. D.F. Anderson, Chair, 235 Physical Education Building, Department of Health and Human Performance, Iowa State University, Ames, IA 50011

Assistant Professor (Ph.D.): Physical Therapy program at University of Wisconsin La Crosse, La Crosse, Wisconsin is seeking a biomechanist and/or motor control prepared individual for a tenure track position. Applicants with a PhD/PT, PT with advanced degree, or PhD with compatible interests will be considered. Send cv and three letters of reference to: Dr. P.A. Wilder, Chair, Physical Therapy, 2033 Cowley Hall, UW La Crosse, La Crosse, Wisconsin 54601, tel: 608-785-8469, Fax: 608-785-8460

Senior Research Engineers (M.S., Ph.D.): Perform hands-on development and implementation of orthopaedic materials technology with emphasis on polymeric bone cements and implantable

polymer/composite materials and/or UHMWPE as well as hydroxylapatite and other ceramics. Project leadership and supervisory skills preferred.

Research Engineer II's (B.S., M.S.): Hands-on development and implementation of orthopaedic metallurgical materials/process research; research related to materials development, development of standards, testing, and reporting, interfacing with product development, marketing, regulatory, and manufacturing departments and other companies and Universities. Contact Dr. G. Rhodes, Group Director, Technology and Research, Smith & Nephew Richards, Inc., 1450 Brooks Road, Memphis, TN 38116, Proof of Permanent Ability to Work in the USA Required

Research Kinesiologist (M.S.): The Division of Restorative Neurology and Human Neurobiology at Baylor College of Medicine seeks a full-time Research Physical Therapist or Research Kinesiologist. The individual will be required to collaborate with both scientists and physicians on research and clinical studies involving stroke and spinal cord injured subjects. Qualifications include a degree in physical therapy or a Master's degree in kinesiology with experience in scientific research. Preference will be given to applicants who have prior experience in gait analysis, electromyography and functional electrical stimulation. Send a cover letter, a curriculum vitae and any relevant materials to Dr. F.E. Pollo, Director, Human Motor Control Laboratory, Division of Restorative Neurology and Human Neurobiology, Baylor College of Medicine, 6550 Fannin, Suite 1901, Houston, TX 77030

Mechanical or Biomechanical Engineer (M.S.): The successful candidate should have a Masters degree in Mechanical or Biomechanical Engineering with experience in three dimensional kinematics, computer programming, and numerical methods. Computer aided engineering (ANSYS, ABAQUS, PATRAN, AutoCAD), computational geometry (NURBS), and/or image processing experience is a plus. Responsibilities include providing technical support for biomechanical testing and analysis procedures for research projects and developing analytical procedures to correlate testing data to known mechanical engineering principles. US Citizenship is required. Send a curriculum vitae and three letters of reference to Dr. M.E. Johnson, Laboratory Supervisor, Orthopedic Biomechanics Laboratory, Mayo Foundation, 200

S.W. First Street, Rochester, MN 55905

Injury Biomechanics (M.S.): Expected duties include analyses of injury mechanisms as part of forensic reconstructions of automobile, sport/recreation, and slip/fall accidents; assistance in research projects; opportunity to pursue related research and/or develop specialized area of expertise; opportunity for growth, entry level applicants encouraged. Contact Dr. J.B. Wheeler, Biomechanics Research & Consulting, Inc., 840 Apollo Street, Suite 218, El Segundo, CA 90245, tel: 310-615-3112, Fax: 310-615-3038, E-mail: brccal@ix.netcom.com

Mechanical Engineer/ Biomechanist (M.S.): The Biomotion Foundation and Good Samaritan Medical Center, West Palm Beach, Florida, have an opening for a Mechanical Engineer/ Biomechanist in the Orthopaedic Research Laboratory. The candidate should have research experience in three dimensional human motion and musculoskeletal/biomechanical computer modeling, direct experience with sports medicine and/or joint replacement studies, video based motion analysis systems, EMG, computer graphics, and mechanical simulation packages. Send a cv, letters of reference, and a statement of professional interests and career goals to: Dr. S.A. Banks, Technical Director, Orthopaedic Research Laboratory, Good Samaritan Medical Center, 1309 N. Flagler Drive, West Palm Beach, FL 33402

Test Engineer (B.S. or M.S.): Wright Medical Technology, Inc. has an opening for a Test Engineer who will be responsible for designing test fixtures, preparing test protocols, analyzing data, and writing technical reports. Applicants must have a B.S. or M.S. degree in Mechanical Engineering and a background in numerical and experimental stress analysis techniques. Experience with biomechanical testing and analysis preferred. Send resume to Wright Medical Technology, Inc., P.O. Box 100, Arlington, TN 38002, Attn: HRD/TIS

Product Manager, Medical Orthopaedic Market (B.S.): UFP Technologies, Inc. is looking for an individual who can apply biomechanical engineering skills to serve as a product specialist and engineering/design resource. Applicants should have a degree in biomechanical engineering (with

an emphasis on materials), or equivalent experience. Experience as a product manager or salesperson is considered an advantage. Contact Dr. R.L. Bailly, UFP Technologies Inc., 172 E. Main Street, Georgetown, Massachusetts, USA, tel: 508-352-2200, Fax: 508-352-5616.

Mechanical Engineer: The Mayo Clinic Orthopaedic Biomechanics Laboratory has an opening for a mechanical engineer with a background in three dimensional kinematics and computer programming. Experience in one or more of the following areas is a plus: finite element analysis, geometric modeling (parametric surfaces), medical imaging (processing of CT and MRI images). U.S. Citizenship is required. Send a resume and three letters of reference to Dr. M. Johnson, Biomechanics Laboratory, 128 Guggenheim Building, 200 First Street S.W., Rochester, MN 55905

Undergraduate, Graduate, and Post-Doc Opportunities

Post-Doctoral Position: A post-doctoral position is available in the Department of Biomedical Engineering, Case Western Reserve University to investigate microstimulation of the lumbosacral spinal cord for neural prosthetic applications. Qualified candidates will have experience conducting animal experiments, experience in transducing physical variables, an understanding of electrical stimulation, the ability to work independently, and excellent written communication skills. This position provides a competitive salary and full health insurance benefits. Send a CV with the names of 3 references to Dr. W. Grill, Fax: 216-778-4259, E-mail: wmg@po.cwru.edu

Research Assistant: The Ergonomics Program, University of California, San Francisco/Berkeley has an opening for a research assistant. Knowledge of EMG techniques, optoelectronic motion acquisition, upper extremity anatomy, both PC and Macintosh computing platforms, and a positive demeanor are preferred. Contact Dr. P.J. Keir, UCSF Ergonomics Program, 1301 South 46th St. Bldg. 112, Richmond, CA 94804, tel: 510-231-5724, Fax: 510-231-5729, E-mail: pjkeir@itsa.ucsf.edu,

Research and Teaching Assistantships: Openings available for the Fall of 1996 in the Biomechanics Research Lab at the University of Southern California. Contact Dr. J.L. McNitt-Gray, Biomechanics Research Lab, University of Southern California, Los Angeles, CA 90089-0652, tel: 213-740-2492, Fax: 213-740-7909, E-mail: mcnitt@usc.edu

Research Assistant (M.S.): Division of Sport Science and Technology- United States Olympic Committee. Research Assistants are expected to be able to function as junior level professional staff members while working directly with athletes in education and service delivery. Expertise is sought in the areas of biomechanics, physiology, and psychology. Term of employment is generally one year. Send letters and application materials to Sport Science & Technology Division, c/o Dr. J. Carkner, United States Olympic Committee, One Olympic Plaza, Colorado Springs, CO, 80909, tel- 719-578-4810

Graduate Research Assistant, Musculoskeletal Research Center, Department of Orthopaedic Surgery, University of Pittsburgh. Support is available for a student to pursue doctoral work in studying the material properties and biocompatibility of ultra-high molecular weight polyethylene used in total joint replacements. A full graduate research assistantship is offered which includes student health benefits. Send a resume and research interests to: Dr. A.S. Shanbhag, Dept. Orthopaedic Surgery, University of Pittsburgh, E 1641 BST, 210 Lothrop Street, Pittsburgh, PA 15213, Tel: 412-648-1638, Fax: 412- 648-2001

Upcoming Meetings, Workshops, Etc.

March

12th International Jerusalem Symposium on Sports Injuries: 25-28 Mar 1996, Netanya, Israel. Contact Dr. G. Mann, Dept. Orthopaedic Surgery, Hadassah University Hospital, Mount Scopus, Jerusalem 91240 Israel, Fax: +972-2-61986 or +972-2-823515.

15th Southern Biomedical Engineering Conference, 29-31 Mar 1996; Dayton, Ohio, USA; Contact Dr. P.K. Bajpai, Conference Chair, Dept. of Biology, Univ. of Dayton, Dayton, Ohio 45469-

2320, USA; Tel. 513-229-2135 Fax 513-229-2021.

April

In-vivo pressure measurement: Scientific, Clinical and Commercial Aspects, 3-4 Apr 1996, Crewe & Alsager Faculty, Manchester Metropolitan University, UK., Contact Dr. C. Jordan or Dr. P. Dabnichki, Crewe & Alsager Faculty, Manchester Metropolitan University, Hassal Road, Alsager, ST7 2HL., UK, Tel: +44-161 247 5650 or +44-161-2475491, Fax: +44-161 247 6375, E-mail: biomechanics@bbcnc.org.uk.

33rd Annual Rocky Mountain Bioengineering Symposium: 12-13 Apr 1996, U.S. Air Force Academy, Colorado Springs, CO; Contact Dr. H. Valenta, 19042 E Oxford Drive, Aurora, Colorado 80013; Tel. 303-690-9688 Fax 303-530-6277 E-mail: valenh@pfizer.com

6th Annual Meeting on Neural Control of Movement: 16-21 Apr, 1996, Marco Island, Florida, USA. Contact Dr. B.W. Peterson, Dept. Physiology, Northwestern University Medical School, 303 E. Chicago Ave., Ward Bldg 5-095, Chicago, Illinois, 60611-3008 USA, tel: 312-503-6216, Fax: 312-503-5101, E-mail: bpeterson2@nwu.edu.

1st Annual North American Society of Gait and Clinical Movement Analysis Conference: 20-23 Apr 1996, The Children's Hospital of Alabama in Birmingham, AL U.S.A; Contact Dr. T.S. Horn, Program Chairman, Gait Analysis Center, 1600 7th Avenue South, ACC Suite 418, Birmingham, Alabama 35233 USA; Tel. 205-939-6051, Fax 205-939-6057, E-mail: medto30@uabdpo.dpo.uab.edu

May

6th Injury Prevention through biomechanics symposium: 9-10 May 1996, Wayne State University, Detroit, Michigan, USA, Contact Dr. M.J. Grimm, Bioengineering Center, 818 W. Hancock, Wayne State University, Detroit, Michigan 48202, tel: 313-577-8395, E-mail at grimm@rrb.eng.wayne.edu.

ErgoCon '96: Silicon Valley Ergonomics Conference: 12-15 May 1996 Contact Dr. A. Moallem, Conference Chair, Silicon Valley Ergonomics Institute, San Jose State University, One Washington Square, San Jose, California 95192-0180; Tel. 408-924 4132 Fax 408-924 4153.

Course on Orthopaedic Biomechanics, 13-16 May 1996, Martha's Vineyard, Massachusetts, USA.

Contact Dr. M. Dizzzoza, Department of Biomechanics and Biomaterials, Hospital for Special Surgery, 535 East 70th Street, New York, New York, 10021 USA. Tel: 212-606-1754, Fax: 212-606-1490.

First Annual Conference of the International Functional Electrical Stimulation Society (IFESS), 14-16 May 1996, Cleveland, Ohio, USA. Contact Dr. J. O'Malley Teeter, Chair, Local Organizing Committee, Cleveland FES Center, 11000 Cedar Avenue, Cleveland, Ohio, 44106-3052 USA, 216-231-3257 Fax: 216-231-3258, E-mail: fess96@po.cwru.edu

3RD International Workshop on Animal Locomotion: 20-23 May 1996, National Equestrian School of Saumur - Saumur, France; Secretariat of IWAL 3 - Contact Dr. E. Barrey, INRA, SGQA, 78352 JOUY-EN-JOSAS CEDEX, France; Fax. +33 1 34 65 22 10 E-mail: ugeneba@dgal.jouy.inra.fr

First Annual Congress of European College of Sport Science, 28-31 May 1996, Nice, France, Contact Chairman of the Scientific Committee Dr. H.T.A. Whiting, Dept. of Psychology, University of York, U.K., E-mail: HTAW1@unix.york.ac.uk
American College of Sports Medicine, 29 May - 1 Jun 1996, Cincinnati, Ohio, Contact American College of Sports Medicine, P.O. Box 1440, Indianapolis, Indiana, USA, Tel: 317-637-9200, Fax: 317-634-7817.

June

Biomechanics and Neural Control of Movement IX- Neuro-Mechanical Control: Interaction Between Neural Circuits and Biomechanics, 1-6 Jun 1996, Deer Creek Resort and Conference Center, Mt. Sterling, Ohio, Contact: Engineering Foundation Conferences, 345 East 47th Street, New York, New York 10017, 212-705-7836 Fax: 212-705-7441, E-mail: engfnd@aol.com

14th International Symposium of Biomechanics in Sports: 25-29 Jun 1996 Funchal, Portugal. Contact Dr. J. Abrantes, ISBS'96 Chairman, Laboratório de Biomecânica, Faculdade de Motricidade Humana, Universidade Técnica de Lisboa, 1499 Lisboa Codex, Portugal, tel: 351-1-4149131/4196777, Fax: 351-1-415248.

First International Summer School on 3D analysis of human movement, 27-30 Jun 1996,

Lyon, France, Contact Dr. J. Dimnet, Labatoire de biomechanique du mouvement, Centre de mecanique, University Claude Bernard, 43, Bd du 11 Novembre 1918 69622 Villeurbanne cedex, France, phone: +33-72 44 80 87, Fax: +33-72 44 80 54, or Dr. P. Allard, Centre de recherche, Sainte-Justine Hospital, 3175 Cote St-Catherine, Montreal, PQ, H3T 1C5 Canada, Tel: +1 514 345-4740 Fax: +1 (514) 345-4801, E-mail: allardp@ere.umontreal.ca

Fourth International Symposium on 3D analysis of human movement, 30 Jun - 3 Jul 1996, Grenoble, France, Contact Dr. J. Blanchi, Universite Joseph Fourier, BP 53-X, 38041 Grenoble, France, Phone: +33-76 51 46 94, Fax: +33-76 51 44 69, E-mail:blanchi@pop.ujf-grenoble.fr., or Dr. P. Allard, Centre de recherche, Sainte-Justine Hospital, 3175 Cote St-Catherine, Montreal, PQ, H3T 1C5 Canada, Tel: +1 514 345-4740 Fax: +1 (514) 345-4801, E-mail:allardp@ere.umontreal.ca

July

The Engineering of Sport: 2-4 Jul 1996, University of Sheffield, Sheffield, England; Contact Dr S. J. Haake, Dept. Mechanical and Process Engineering, University of Sheffield, Mappin Street, Sheffield S1 3JD, UK; Tel: 0114-282-5415, Fax.: 0114-275-3671, E-mail: S.J.Haake@sheffield.ac.uk

Bioengineering and Orthopaedic Science Gordon Conference: 28 July -2 Aug 1996. Andover, New Hampshire, USA. Contact Dr. S.A. Goldstein, University of Michigan, Orthopaedic Research Laboratories, G0161 400 North Ingalls, Ann Arbor, Michigan, USA, 48109-0486, tel: 313-763-9674, Fax: 313-747-0003, E-mail: stevegl@umich.edu.

August

XIIth International Biophysics Congress 11-16 Aug 1996, Amsterdam, The Netherlands, contact: Congress Secretariat XIIth IBC, Amsterdam RAI - OBA, P.O. Box 77777, 1070 MS Amsterdam, The Netherlands. tel: +31 (0)20 549 1212, Fax +31 (0)20 646 4469

9th Canadian Society for Biomechanics Conference: 22-24 Aug 1996 Simon Fraser University, Burnaby, B.C.; Contact Dr. J. Eng., School of Kinesiology, Simon Fraser University, Burnaby, BC, Canada, V5A 1S6; Tel. 604-291-

5770 , E-mail: jjeng@sfu.ca

Bernstein's Traditions in Motor Control, 23-25 Aug 1996, Penn State University, State College, Pennsylvania. Contact Dr. M. Latash, Biomechanics Lab., Penn State University, University, Park, Pennsylvania, 16802. Tel: 814-863-5374, Fax: 814-865-2440, E-mail:mll11@psu.edu.

10th Conference of the European Society of Biomechanics: 28-31 Aug 1996 Leuven, Belgium; Contact Dr. J. Vander Sloten, Celestijnenlaan 200A, B-3001, Heverlee (Belgium); Tel: +321 632 7096 Fax: +321 629 2716; E-mail: jos.vandersloten@mech.kuleuven.ac.be

September

Third International Conference on Medical and Biological Implant Theory, 2-6 Sep 1996, University of Nottingham, U.K., Contact Dr. K. Copeland, Conference Chairman, 6 Holland Court, Page Street, Mill Hill, London NW7 2DJ, UK
tel & fax: +44 0 181 959 8626

Preventing falls in the elderly: 28-29 Sep 1996, Eden Roc Resort and Spa, Miami Beach, Florida, USA. Contact NRE, tel: 360-696-2299 Fax: 360-699-1351

October

20th Annual Meeting of the American Society of Biomechanics: 17-19 Oct 1996, Atlanta, Georgia, USA; Contact Dr. R.J. Gregor, Department of Health and Performance Sciences, Georgia Institute of Technology, Atlanta, Georgia, 30332-0110; Tel. 404-894-1028 Fax 404-894-7025 E-mail: robert.gregor@sac.gatech.edu

18th Annual International Conference of the IEEE, Engineering in Medicine and Biology Society, 31 Oct-3 Nov 1996, Amsterdam, The Netherlands, contact: Conference secretariat: Basics International Conference Services, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands, +31-53-4356770

November

Dynamics, Control, and Measurement of Biomechanical Systems: 1996 International Mechanical Engineering Congress and Exposition, 17-22 Nov Atlanta Georgia, Contact Dr. Y. Hurmuzlu, Dept. Mechanical Engineering, Southern Methodist University, Dallas, Texas, USA 75275, Tel: 214-768-3498, Fax 214-768-1473, E-

mail : hurmuzlu@seas.smu.edu

*Kind of, but not really,
way out there...*

World Biomaterials Congress: 29 May-2 Jun 1997; Toronto, Ontario, Canada, Contact Congress Canada, 191 Niagara Street, Toronto, Ontario, Canada M5V 1C9; Tel. 416-860-1772 Fax 416-860-0380

XVIth Congress of the International Society of Biomechanics, 25-29 Aug 1997, Tokyo, Japan. Contact Dr. S. Fukashiro, General Secretary, XVIth ISB, Tokyo Congress, Dept. Life Sciences, University of Tokyo, Komaba 3-8-1, Meguro 153, Japan. Tel & Fax: +81-3-5454-9494, E-mail: ISB97@idaten.c.u-tokyo.ac.jp.

The Third World Congress of Biomechanics: 2-8 Aug 1998, Contact Hokkaido University, Sapporo, Japan; Biomechanics Laboratory, Department of Mechanical Engineering, Faculty of Engineering Science, Osaka University, Toyonaka, Osaka 560, Japan; tel: +81-8-850-6170, Fax: +81-8-850-6171

Award Sightings

Many of you may be familiar with the *Annals of Improbable Research* (AIR) which is touted as the journal for inflated research and personalities. If you've not already been able to peruse this journal, it is certainly worth the effort to access it. Last October, at Harvard University, five Nobel Laureates headed a group comprising, among others, children, animals, musicians, and other celebrities, to honor people whose achievements "can not or should not reproduced" in the Fifth First Ig Nobel Prize Ceremony. . It was a spectacular gala event that I was quite pleased to have been able to attend. As I later thought about the ceremony I realized that in fact, quite literally for decades, ISB has had its own version of these awards. The *Dick and Dewey Awards* have been a highlight of each ISB Congress, held at the banquet. It is my hope that one of ISB's trusted historians (Dick, why aren't you returning my phone calls?) will soon submit to the Newsletter the chronicle of these awards for they represent one of the Society's enduring legacies. Back at Harvard, at the close of the Ig Nobel Prize Ceremony, Marc Abrahams, Co-founder of AIR, proclaimed, "To those of you who

won awards, and to those of you who did not...better luck next year". Those familiar with the Dick and Dewey Awards know that, in similar fashion, they should be approached with caution. However, if I am not mistaken, there have been no award winners that have not been ISB Congress attendees. Therefore, to partially diminish this quasi-discriminating practice and to bring to the entire membership (at least those who read the Newsletter), I propose a regular column in which ISB members can submit announcements of AWARD SIGHTINGS, a term that may have been coined at the last ISB Congress. An award sighting, if observed during an ISB Congress, is an event that may have competed for a Dick and Dewey award. As the first in what I hope will be an illustrious chain, I would like to bestow upon Fred Yeadon (the current Master of Ceremonies of the D&D Awards) the "Look Mom, no hands!" award.

At the recent IOC Congress on Sport Sciences, Fred Yeadon was observed attempting to place his feet into the steering mechanism of Mont Hubbard's bobsled simulator. Mont's Bobsled Simulator resembles a large cylindrical can with its long axis horizontal. Entry is gained from above and once situated inside, the top is closed and the user views the simulated bobsled run on a computer monitor. The prescribed method of use is to place one's hands through the loops of the steering ropes. Fred, a known daredevil, and possessing obvious multiple joint flexibility, apparently was inclined to increase the level of difficulty. Although later penalized 0.4 points when he didn't point his toes during a head/foot first crash into a simulated tree in his first run, he did score strongly in the artistic impression category.

Any members interested in submitting award sightings should bring them to my attention by mail, E-mail, telepathy (the latter method may not be received), etc. The submission should include the name of the member for whom the award sighting was made, a detailed account of the event associated with the sighting, and, because at least in the United States an individual has a Constitutional Right to face his/her accuser, the name of the person(s) having made the sighting.

**Members in the limelight:
whether they want it or not**

We all aspire to earn the respect of our biomechanics peers and, at whatever stage of one's career, one may appreciate the sustained effort that this requires. It is particularly gratifying when recognition is achieved from other groups. It has come to my attention that the work of one of our own ISB members has made quite a splash and has subsequently been highlighted in a singularly non-biomechanics journal. In the *Annals of Improbable Research*, 2(1):25, 1996, in the column titled "May We Recommend: Items that merit a trip to the library", the work titled *Impulse, Momentum, and Water Balloons*, authored by Peter McGuinness (ISB member) and J. Adenroth-Smith (I guess she forgot to send in her dues) was noted. In this work, Peter *et un*, used experimentally derived data and computer simulation to support the historical hypothesis that Isaac Newton was not, in fact, struck with an apple, but rather was victimized by young hooligans while taking the subway home from work. *Kudos* to you Peter!!

\$\$Ask and ye shall (perhaps) receive\$\$

The National Operating Committee on Standards for Athletic Equipment (NOCSAE) has been a leading force in the effort to improve the safety of athletic equipment. This effort includes the support of related research and the development of standards for protective athletic equipment. NOCSAE is soliciting scientific grant proposals on the mechanisms and the prevention of sports injuries, as related in some rational manner to protective equipment. The deadline for submission is April 1, 1996. Contact J.J. Crisco, Ph.D., NOCSAE Director of Research, Orthopaedic Research, SWP - 3, Rhode Island Hospital, 593 Eddy Street, Providence, Rhode Island 02903, E-mail: joseph_crisco_iii@brown.edu

Places to "Go"

The program and most of the presented papers of The 1st Australasian Biomechanics Conference held at The University of Sydney, Australia:
www.cchs.su.edu.au/Academic/BIO/biomech/abc.html

The Biomechanics Group at The Cleveland Clinic Foundation invite you to visit their website:
www.ccf.org/ri/bme/people/enoka/biomech.html

Biomch-L Web page:
www.kin.ucalgary.ca/isb/biomch-l.html

Biomechanics World Wide website :
<http://dragon.acadiau.ca/~pbaudin/biomch.html>

Biomch-L Yellow Pages:
www.orst.edu/~bowenk/byp.html

Neuromuscular Control website:
<http://indy.radiology.uiowa.edu/Providers/PhysicalTherapy/!N.Section/NeuroPT.html>

ISB PUBLICATIONS

The following Society publications can be obtained at the special member rates by writing to the supplier shown.

BOOK OF ABSTRACTS, XVth Congress of the International Society of Biomechanics.

Price: 450 FIM (includes postage)

Supplier: University of Jyväskylä

Payment: Pay to the order of-

University of Jyväskylä
Account No. 800013-10171

Banker POSTIPANKKI
00007 Helsinki, FINLAND
SWIFT PSPBFIHH
Telex 121 698 pgiro sf.

Refer to "ISB Congress book 5620"

(NB: No cheques, foreign currency or credit cards will be accepted)

Then fax a copy of the receipt to:

Minna Korhonen at the University of Jyväskylä

Fax: +358 41 602 071

Tel: +358 41 602 070

E-mail: minnakori@maila.jyu.fi

BOOK OF ABSTRACTS, XIVth Congress of the International Society of Biomechanics.

Price: 550 FF plus postage

Supplier: Professor S. Metral

Explorations Fonction. du Systeme Nervuux
C.H. Bicetre, 78 Avenue du General Leclerc
94275 Kremlin Bicetre, FRANCE
Fax: (33.1) 45.21.27.14

BOOKS OF ABSTRACTS, XIIth and XIIIth Congresses of the International Society of Biomechanics.

Price: \$AUS 40 plus postage (\$AUS40 airmail) ea.

Supplier: Graeme A. Wood

Department of Human Movement
The University of Western Australia
Nedlands, WA 6009, AUSTRALIA
Fax: +61 9 380-1039

BIOMECHANICS XI-A and XI-B, Proceedings of the XIth Congress of the Intn'l. Society of Biomechanics.

Price: 200 Dfl (includes both volumes and postage)

Supplier: Peter Hollander

Faculty of Human Movement Sciences
Vrije Universiteit
van de Boechorststraat 9
1081 BT Amsterdam
THE NETHERLANDS
Fax: +31-20-6442043

BIOLOCOMOTION: A CENTURY OF RESEARCH USING MOVING PICTURES, edited by A.Cappozzo, M.Marchetti and V.Tosi (ISB Book Series-Volume 1; Hard-bound, 356 pages, 180 b&w and 7 colour figures).

Price: \$AUS 65 plus postage (\$AUD 20 airmail)

Supplier: Graeme A. Wood (address as above)

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EDITOR'S NOTE

This Newsletter is published quarterly: February-March (Spring); May-June (Summer); August-September (Autumn), and November-December (Winter). Deadlines for material and articles are the first day of each first named month, and the Newsletter is mailed to members early in the second named month.

Members can submit *Letters, Special Articles, Affiliate Society News, Laboratory Features, Reports, or Announcements of Meetings, Conferences, and Jobs Available*. Also, *Short Abstracts* from biomechanics society meetings and *Thesis Abstracts* can be published. In special circumstances a complete edition of the Newsletter can be devoted to the publishing of a Society's "Proceedings".

Submitted material must be in letter-quality print and computer scannable, or on a computer disk as a text-only file, and in English. Graphics or complex equations must be in camera-ready art form, and photographs must be black and white.

Society abstracts should not be more than 250 words in length. They should be submitted with full details of the conference, and accompanied by any conference or society logos which could be printed as well.

Thesis abstracts should be submitted with full details of Title, Student's Name, Department, Name of Degree and Conferring Institution, together with Supervisor's Name.

Thesis abstracts should not be more than one Newsletter page in length.

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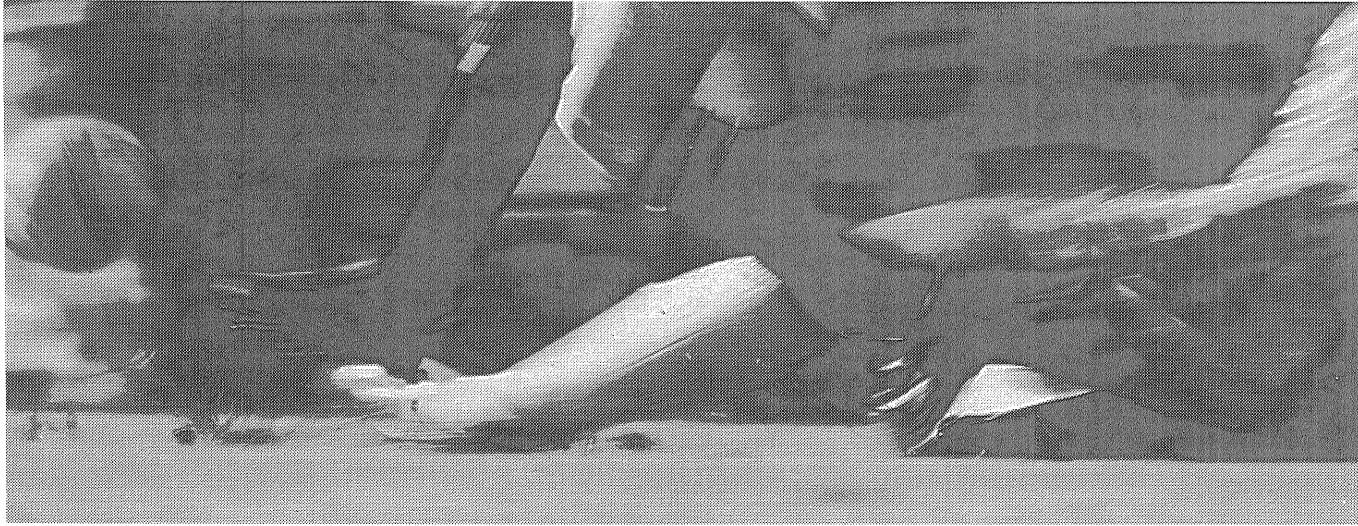
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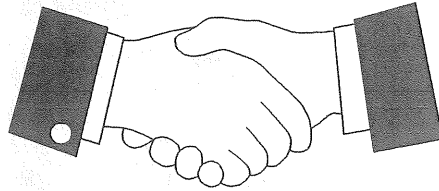
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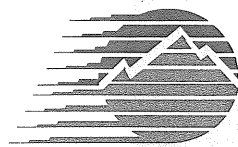


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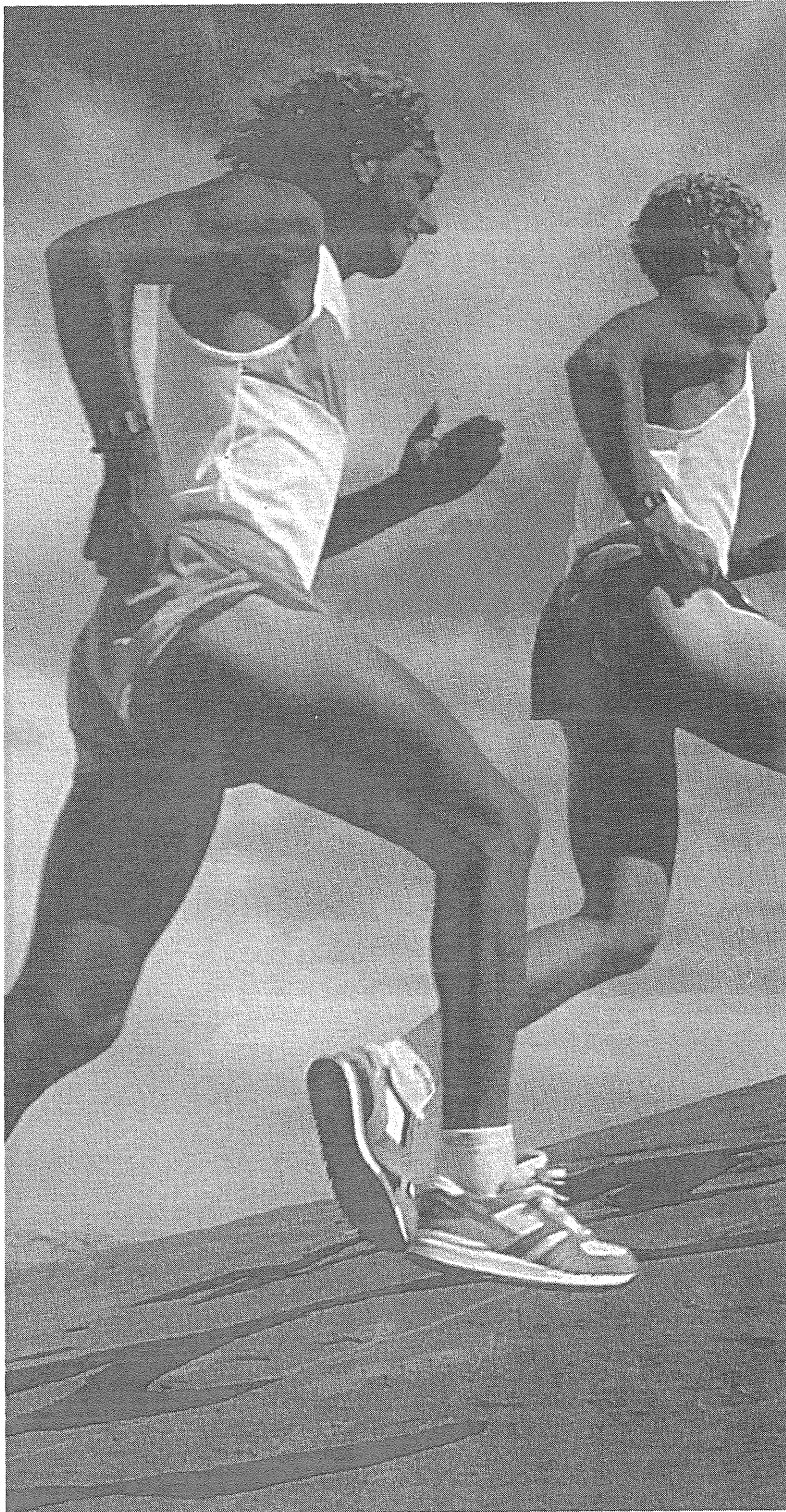
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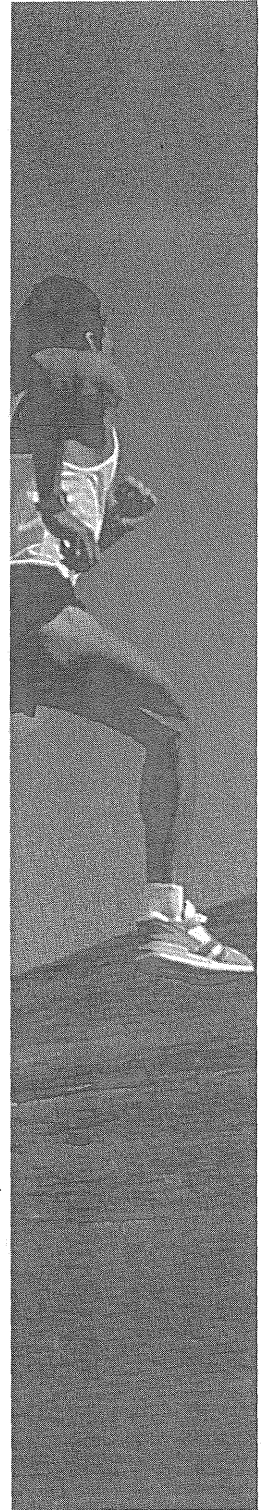
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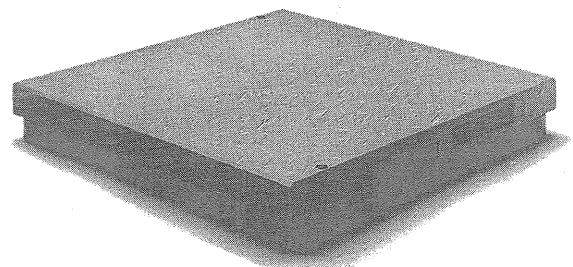
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