Proprioceptive increase with elasticated limb and joint supports

Sir—I have long been entertained by the paradox that the elasticated supports widely used for sporting injuries and joint damage are too flimsy to provide much support. So, how do they work?

Observation of supports’ use and users, particularly of the physical nature of the response, makes it unlikely they provide only mental support. No doubt the awareness provoked by a support sharpens attention, and must encourage protective guarding. Could they act as acupuncture, albeit a blunt variety, with sensation from the support converging on that from the underlying abnormality and jostling it aside? I find such explanations romantic but unattractive, because they lack testability. Also, as well as pain relief, supports are used to prevent painful injury.

The simplest, and best, explanation I can offer for relief from, and prevention of, pain is proprioceptive increase. Greater awareness of limb and joint position would act as a functional splint, thereby easing pain, and limitation of movements likely to cause injury would reduce the risk of a new episode.

Although my hypothesis has not been tested, osteoarthritis and knee surgery can impair joint position sense, and can be improved by supports.1,2 Yet, of course, such physiologically disordered joints can be very different from those in healthy young athletes.

Although the proposed proprioceptive improvement may be of classic position sense from muscle, joint, and tendon, I like the idea of external cutaneous proprioception induced by the touchy-feely fabric and it is easier to imagine a flimsy application to the surface affecting superficial rather than deep sensation.

Measurement of the detection of passive movement, directional change, and static limb position—with and without skin anaesthesia—would show whether elasticated supports induce proprioceptive increase in normal limbs, as well as the role of classic and skin sensation. Such measurements would also allow improvements of these devices. How elastic, strong, constricting or supportive do they need to be? What is the important area they need to cover? Is there densitisation with continued use? Does proprioceptive increase have an application in rehabilitation, and could this be a useful approach to the impairment of position sense and associated risk of injury that occurs with ageing? And, even, whether long underwear could have more than a thermoregulatory function?

I thank D J Dandy for his helpful comments.

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First round of payments from the Global Fund

Sir—In her May 4 news item, Sarah Ramsay reports that the Global Fund to Fight AIDS, Tuberculosis, and Malaria falls lamentably short of the US$7–10 billion per year that the UN has estimated is necessary to tackle HIV/AIDS alone. In the first round of fund disbursement US$380 million were granted to 40 programmes over 2 years.3 A substantial portion of these funds will be used to procure drugs, including antiretrovirals.

Although the fund has made explicit its support for the Doha declaration of October, 2001, on the Trade-Related Intellectual Property Rights (TRIPS) agreement and public health, confusion seems to remain as to acceptable sources of drugs. The application from Malawi stated: “...we are assuming that the Global Fund will only finance patented drugs. This is in line with consultations with WHO and the donor community...”4 Although the Fund has made explicit its support for the Doha declaration of October, 2001, on the Trade-Related Intellectual Property Rights (TRIPS) agreement and public health, confusion seems to remain as to acceptable sources of drugs. The application from Malawi stated: “...we are assuming that the Global Fund will only finance patented drugs. This is in line with consultations with WHO and the donor community...”4

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As an intergovernmental initiative of substantial influence, it is essential that the Fund promotes policies that encourage equitable and sustainable access to essential medicines. It has the potential to encourage efforts to establish systematic equity pricing and promote access to medicines, including the development of sustainable tiered pricing systems and the use of home-produced or imported generic products. It also has the potential to discourage countries from making use of generic products and TRIPS safeguards, and so undermine the intent of the Doha declaration, by effectively subsidising the use of high-priced branded products.

A recent consensus statement from 12 major health non-governmental organisations defines several moves that are required from the Fund if it is to meet its potential in promotion of access to health care in developing countries.5

The Fund should publicise its strong support for the Doha declaration, and issue guidelines to help countries make appropriate use of the provisions outlined in the declaration in their proposals. Efforts to introduce legislation to support equity pricing, and the use of the TRIPS safeguards, if relevant, should be supported by the Fund working with relevant intergovernmental organisations.

An explicit commitment should be made to support the provision of quality products by the most affordable and most sustainable means, including systematic equity pricing through tiered pricing systems and the use of generic supplies, accessed where necessary through the issue of voluntary or compulsory licences. This should form part of the criteria by which proposals are considered.

WHO’s work on pre-qualification of suppliers of affordable medicines will facilitate the best use of funding and should be supported by the Fund.6 Furthermore, the Fund should collaborate with intergovernmental bodies in development and use of global or regional bulk purchase mechanisms for these medicines.

The Doha declaration makes clear that the TRIPS agreement should be implemented in a way that ensures the right to protect public health and, in particular, to promote access to medicines for all who need them. Indicators for measurement of the success of the Global Fund should include its role in promotion of the practical application of these rights by national governments.

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