Type A individuals can be distinguished from Type B by both their physiological and psychological reactions to challenge. Type As have been found to create much of their own stress and to show an increase in neuroendocrine and autonomic responses when faced with challenge. A recent study investigated whether differences in sport competition anxiety, habituating behaviours and response to the challenge of training and racing existed between Type A and B runners who engage in competitive road racing (Hinkle, J. S., Lyons, B. and Burke, K. L. Manifestation of Type A behavior pattern among aerobic runners Journal of Sport Behaviour 1989, 12(3), 131–8). Results suggest that there was no significant difference between the two groups in sport competition anxiety, level of training and competitive behaviour. However there was a significant difference in the category ‘running when not motivated’. It appears that Type A individuals ran more often when not motivated than did the Type Bs.

The role of physical exercise and its influence on resting energy expenditure has received considerable interest over the years (Poehlman, E.T. A review: Exercise and its influence on resting energy metabolism in man Medicine and Science in Sports and Exercise 1989, 21(5), 515–25). There are three primary components of resting energy expenditure (resting metabolic rate, RMR; thermic effect of feeding, TEF; thermic effect of activity, TEA). Of these the most valuable component in humans is the TEA which includes the energy expenditure due to physical work, muscular activity and purposeful physical exercise. It is the participation in exercise, both acute and chronic, which has been found to influence RMR and TEF. Reports in the literature examining the relation between training, RMR and TEF are conflicting however. It appears that RMR may be elevated in (only) very highly trained individuals whereas TEF may be enhanced by moderate exercise training. Genetic variation, timing of the exercise bout relative to calorimetry measurements, and different criteria to define trained and untrained individuals are probable contributions to the divergent results found in the literature.

Achilles tendinitis commonly affects athletes in the running and jumping sports and is reviewed in Nichols, A.W. Achilles tendinitis in running athletes Journal of the American Board of Family Practice 1989, 20(3), 196–202. It results from repetitive eccentric load-induced microtrauma that stresses the peritendinous structures causing inflammation. Training errors such as excessive running mileage and training intensity, hill running, running on hard or uneven surfaces and wearing poorly designed running shoes are frequently responsible for the onset of Achilles tendinitis.

Biomechanical abnormalities which predispose to this injury include gastrocnemius-soleus muscle weakness or inflexibility and hindfoot malalignment with foot hyperpronation. Initial treatment is conservative with rest, cryotherapy, NSAIDs and biomechanical correction. Surgery is recommended only for persons with chronic symptoms who have not benefited from conservative therapy but who wish to continue running.

Magnetic resonance imaging for the diagnosis of Achilles tendinitis is described in Fast scan magnetic resonance of Achilles tendonitis (Bertho–t, D., Sartoris, D.J. and Resnick, D. Journal of Foot Surgery 1989, 28(2), 171–3). A case report shows the most useful imaging sequence to be a sagittal low flip, angle-fast scan.

In Skeletal system: A limiting factor to sports performance? A brief review (Journal of Orthopaedic Rheumatology 1989, 2, 123–32) N. Maffulli examines how the structure and composition of some parts of the skeletal system may limit maximal sports performance capability. This paper looks at stresses under which the skeletal system is placed during sporting activities, highlighting the contribution of tendons, ligaments, entheses, articular cartilage, synovial fluid and bone to the locomotor apparatus.

Most occurrences of low back pain in athletes respond quickly to reasonable and acceptable forms of conservative treatment. Many of these incidences are related to either acute traumatic injury or effects of accumulative overuse activity. However, persistent low back pain in the athlete may be a potential indicator of serious low back dysfunction. Biomechanical considerations for clinical application in athletes with low back pain (Deusinger, R.H. Clinics in Sports Medicine 1989 8(4), 703–15) discusses the biomechanics, structure and movement of the lumbar spine as the basis for suggesting some alternative approaches to preventative treatment and rehabilitation of low back pain in the athlete.

The meaning of fitness in its association with physical activity and the relative importance of each in deriving health benefits is well examined in the article Being habitually active in leisure time: Today’s best buy for public health (Mercer, T. British Journal of Physical Education 1989, 20(3), 137–44). The author also attempts to throw light on the patterns of habitual physical activity in late industrial societies and the methods used to determine its prevalence in these populations.

News

Porritt Fellowship
Applications are invited for the 8th Porritt Fellowship in honour of BASM’s co-founder, Lord Porritt. Its purpose is to encourage study of the physiology and biochemistry of sporting achievement and/or sports injuries. Candidates must hold an FRCS or be a medically qualified member of a Royal College of Surgeons’ scientific department. Apply by 27th April 1990; Full details from: R.H.E. Duffet, Secretary R.C.S., 35/45 Lincoln’s Inn Fields, London WC2A 3PN, UK.

The British Institute of Sports Coaches was recently set up to serve the wider coaching community below the level of national coaches, who are represented by the British Association of National Coaches (BANC). Details: Geoff Cooke, Chief Executive BISC, College Close, Becket Park, Leeds LS6 3QH. tel: 0532-753365

Jogger’s Revenge?
Hard on our recent report of an East End tragedy we read of an elderly gentleman found dead in a Yorkshire road, putatively as a result of a contretemps with a jogger. (The Guardian, 4/12/89)