

Debating transversus abdominis, the “exercise pill” and whether flying limits athletes’ performance on arrival

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In this issue of *BJSM*, Allison and Morris (see page 630)¹ question some fundamental beliefs regarding core stability. Whether or not you agree with them, the paper raises an important issue. It is difficult to move research into practice but sometimes practice behaviours do seem to take off ahead of the clinical evidence. Is this the case here or not? Make up your own mind. Associate Editor Professor Paul Hodges responds in December’s *BJSM*.

Jill Cook (see page 563)² takes this issue and considers it more broadly. Are all those patients who worked diligently on the Cybex machine in the 1980s better off for that? (I can see the younger reader yelling out: “Hey Mum, what’s a Cybex?”). But I digress. The editorial reminds both clinicians and scientists that close communication is essential. As one of the worlds leading clinician-scientists, Jill Cook is well placed to make us think about this for the ultimate benefit of our patients.

RESPONSE TO THE CELL PAPER: “EXERCISE PILL”

BJSM is renowned for being a tad contrarian and this month we benefit from having Indiana’s Stu Warden and Robyn Fuchs comment on the recent report of a pill³ that provides all the benefits of exercise without you actually having to go to the trouble (see page 562).⁴ What will “Big Pharma” think of next? A pill that provides all the benefits of sex without having to go to the trouble? But ignore me, and enjoy their provocative commentary. What do you think of the

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concept of an exercise pill? Should we promote exercise as a “polypill”? Comment on the *BJSM* Blog (<http://blogs.bmj.com/BJSM>)

In this issue, Andrew Nichols (see page 609)⁵ argues that sports medicine research methodology is improving and we can be confident that our field has an increasingly scientific basis. Good thing! He also found that *BJSM* authors span more countries than do those of other sports medicine journals. For example, please see the papers on (1) the metabolic cost of assisting walking patterns from Japan (see page 622)⁶ and (2) from Brazil, the effect of high-intensity prolonged exercise on muscle.⁷ An interesting note comes in from New Zealand: flying for 10-13 hours reduces oxygen saturation and is like being at altitude (see page 577).⁸ This has immediate application for personal travellers and teams, as it may not make sense for a team to arrive on the day of competition.

UK HEALTH STUDY: WATCHING A NATION PLAY SPORT!

On the subject of super science, you’ll also find the results of the UK Health Study (see page 601).⁹ These novel data provide a temporal trend for 60 000 participants! Without giving away the ending here, it looks moderately hopeful that physical activity can be improved in some segments but not in others. We still have a lot of work to do to narrow the gap in physical activity adoption between lower and higher socioeconomic strata and between white and ethnic minority groups. Please visit relevant linked papers in *BJSM*. See April’s meta-analysis of walking¹⁰ and the “walking issue” (May, 2008) in which Williams¹¹ analysed 7000 men in the US and found that walking had profound effects on BMI and waist circumference in those with the highest

BMI. This is great news. Show me the pill that will do that without side-effects.

And before I leave this issue don’t forget to check out “Online First”. You’ll find gems from authors such as Frank Booth, Stephen Blair, Kay Crossley and the aforementioned Paul Hodges, to name just a few. *BJSM* gains terrific support from sports medicine luminaries – our challenge is to help you find their papers fast! The downside is that it is difficult to get papers into *BJSM* – we can accept only 10% of submissions. I will save my explanation of that – and how to defy the odds – on the *BJSM* Blog, (<http://blogs.bmj.com/BJSM>) rather than on this page, which comes out in the print version of the journal. If you are reading this in the print form, remember that “the e-version is the version”, so please visit on the web as well. We’ve enlarged the cover graphic a bit to help you read the titles and you can find the free articles right there on the home page. Click on the cover icon and you are in!

Competing interests: None.

REFERENCES

- Allison GT, Morris SL. Transversus abdominis and core stability – has the pendulum swung? *Br J Sports Med* 2008;**42**:630–1.
- Cook J. Jumping on bandwagons: Taking the right clinical message from research *Br J Sports Med* 2008;**42**:563.
- Narkar VA, Downes M, Yu RT, et al. AMPK and PPARdelta agonists are exercise mimetics. *Cell* 2008;**134**:405–15.
- Warden SJ, Fuchs RK. Are ‘exercise pills’ the answer to the growing problem of physical inactivity? *Br J Sports Med* 2008;**42**:562–3.
- Nichols AW. Sports medicine clinical trial research publications in academic medical journals between 1996 and 2005—an audit of the PubMed MEDLINE database. *Br J Sports Med* 2008;**42**:609–21.
- Shimada H, Suzuki T, Kimura Y, et al. Effects of an automated stride assistance system on walking parameters and muscular glucose metabolism in elderly adults. *Br J Sports Med* 2008;**42**:622–9.
- Bessa B, Nissebaum M, Monteiro AN, et al. High intensity ultraendurance promotes early release of muscle injury markers. *Br J Sports Med* 2008;**42**:589–93.
- Geertsema C, Williams AB, Dzendrowskyj P, et al. Effect of commercial airline travel on oxygen saturation in athletes. *Br J Sports Med* 2008;**42**:577–81.
- Stamatikis E, Chaudhury M. Temporal trends in adults’ sports participation patterns in England between 1997 and 2006: The Health Survey for England. *Br J Sports Med* 2008;**42**:601–8.
- Hamer M, Chida Y. Walking and primary prevention: a meta-analysis of prospective cohort studies. *Br J Sports Med* 2008;**42**: 238–43.
- Williams PT. Association between walking distance and percentiles of body mass index in older and younger men. *Br J Sports Med* 2008;**42**:352–6.

CORRECTION

There was an error in the pagination of the articles published in the October and November 2008 issues of the journal. Please see a corrected list of citations below. The journal apologises for this error.

Khan KM. Preventing ACL injuries, turning research into practice and avoiding media ambush. *Br J Sports Med* 2008;**42**:483–4. should be **Khan KM.** Preventing ACL injuries, turning research into practice and avoiding media ambush. *Br J Sports Med* 2008;**42**:783–4.

Gregory PL, Seah R, Pollock N. What to tell the media—or not: consensus guidelines for sports physicians. *Br J Sports Med* 2008;**42**:485–8. should be **Gregory PL,** Seah R, Pollock N. What to tell the media—or not: consensus guidelines for sports physicians. *Br J Sports Med* 2008;**42**:785–8.

Fagan V, Delahunt E. Patellofemoral pain syndrome: a review on the associated neuromuscular deficits and current treatment options. *Br J Sports Med* 2008;**42**:489–95. should be **Fagan V,** Delahunt E. Patellofemoral pain syndrome: a review on the associated neuromuscular deficits and current treatment options. *Br J Sports Med* 2008;**42**:789–95.

Beltrami FG, Hew-Butler T, Noakes TD. Drinking policies and exercise-associated hyponatraemia: is anyone still promoting overdrinking? *Br J Sports Med* 2008;**42**:496–501. should be **Beltrami FG,** Hew-Butler T, Noakes TD. Drinking policies and exercise-associated hyponatraemia: is anyone still promoting overdrinking? *Br J Sports Med* 2008;**42**:796–801.

Diehl JJ, Pirozzolo JJ, Best TM. The practice of primary care sports medicine in the USA. *Br J Sports Med* 2008;**42**:506–9. should be **Diehl JJ,** Pirozzolo JJ, Best TM. The practice of primary care sports medicine in the USA. *Br J Sports Med* 2008;**42**:806–8.

Hides J, Stanton W, Freke M, *et al.* MRI study of the size, symmetry and function of the trunk muscles among elite cricketers with and without low back pain. *Br J Sports Med* 2008;**42**:509–13. should be **Hides J,** Stanton W, Freke M, *et al.* MRI study of the size, symmetry and function of the trunk muscles among elite cricketers with and without low back pain. *Br J Sports Med* 2008;**42**:809–13.

Kukidome T, Shirai K, Kubo J, *et al.* MRI evaluation of body composition changes in wrestlers undergoing rapid weight loss. *Br J Sports Med* 2008;**42**:514–18. should be **Kukidome T,** Shirai K, Kubo J, *et al.* MRI evaluation of body composition changes in wrestlers undergoing rapid weight loss. *Br J Sports Med* 2008;**42**:814–18.

Zhang Y, Lin Z, Hu Y, *et al.* Effect of *Ganoderma lucidum* capsules on T lymphocyte subsets in football on “living high—training low”. *Br J Sports Med* 2009;**42**:519–22. should be **Zhang Y,** Lin Z, Hu Y, *et al.* Effect of *Ganoderma lucidum* capsules on T lymphocyte subsets in football on “living high—training low”. *Br J Sports Med* 2009;**42**:819–22.

Edwards AM, Wells C, Butterly R. Concurrent inspiratory muscle and cardiovascular training differentially improves both perceptions of effort and 5000m running performance compared with cardiovascular training alone. *Br J Sports Med* 2009;**42**:523–7. should be **Edwards AM,** Wells C, Butterly R. Concurrent inspiratory muscle and cardiovascular training differentially improves both perceptions of effort and 5000m running performance compared with cardiovascular training alone. *Br J Sports Med* 2009;**42**:823–7.

Baron B, Noakes TD, Deckerle J, *et al.* Why does exercise terminate at the maximal lactate steady state intensity? *Br J Sports Med* 2008;**42**:528–33. should be **Baron B,** Noakes TD, Deckerle J, *et al.* Why does exercise terminate at the maximal lactate steady state intensity? *Br J Sports Med* 2008;**42**:828–33.

Ogai R, Yamane M, Matsumoto T, *et al.* Effects of petrissage massage on fatigue and exercise performance following intensive cycle pedalling. *Br J Sports Med* 2008;**42**:534–8. should be **Ogai R,** Yamane M, Matsumoto T, *et al.* Effects of petrissage massage on fatigue and exercise performance following intensive cycle pedalling. *Br J Sports Med* 2008;**42**:834–8.

Sandrock M, Schulze C, Schmitz D, *et al.* Physical activity throughout life reduces the atherosclerotic wall process in the carotid artery. *Br J Sports Med* 2008;**42**:539–44. should be **Sandrock M,** Schulze C, Schmitz D, *et al.* Physical activity throughout life reduces the atherosclerotic wall process in the carotid artery. *Br J Sports Med* 2008;**42**:839–44.

Ferrari M, Bonella F, Benini L, *et al.* Acid reflux into the oesophagus does not influence exercise-induced airway narrowing in bronchial asthma. *Br J Sports Med* 2008;**42**:545–9. should be **Ferrari M,** Bonella F, Benini L, *et al.* Acid reflux into the oesophagus does not influence exercise-induced airway narrowing in bronchial asthma. *Br J Sports Med* 2008;**42**:845–9.

Randolph CC. Commentary on Acid reflux into the oesophagus does not influence exercise-induced airway narrowing in bronchial asthma. *Br J Sports Med* 2008;**42**:549–50. should be **Randolph CC.** Commentary on Acid reflux into the oesophagus does not influence exercise-induced airway narrowing in bronchial asthma. *Br J Sports Med* 2008;**42**:849–50.

Bradshaw CJ, Bundy M, Falvey E. The diagnosis of longstanding groin pain: a prospective clinical cohort study. *Br J Sports Med* 2008;**42**:551–4. should be **Bradshaw CJ,** Bundy M, Falvey E. The diagnosis of longstanding groin pain: a prospective clinical cohort study. *Br J Sports Med* 2008;**42**:851–4.

Zoumalan CI, Blumenkranz MS, McCulley TJ, *et al.* Severe surfing-related ocular injuries: the Stanford Northern Californian experience. *Br J Sports Med* 2008;**42**:555–7. should be **Zoumalan CI,** Blumenkranz MS, McCulley TJ, *et al.* Severe surfing-related ocular injuries: the Stanford Northern Californian experience. *Br J Sports Med* 2008;**42**:855–7.

Banffi G, Krajewska M, Melegati G, *et al.* Effects of whole-body cryotherapy on haematological values in athletes. *Br J Sports Med* 2008;**42**:558. should be **Banffi G,** Krajewska M, Melegati G, *et al.* Effects of whole-body cryotherapy on haematological values in athletes. *Br J Sports Med* 2008;**42**:858.

Schwellnus M. SportsMedUpdate. *Br J Sports Med* 2008;**42**:559–60. should be **Schwellnus M.** SportsMedUpdate. *Br J Sports Med* 2008;**42**:859–60.

Khan KM. Debating transversus abdominis, the “exercise pill” and whether flying limits athletes’ performance on arrival. *Br J Sports Med* 2008;**42**:561. should be **Khan KM.** Debating transversus abdominis, the “exercise pill” and whether flying limits athletes’ performance on arrival. *Br J Sports Med* 2008;**42**:861.

Warden SJ, Fuchs RK. Are “exercise pills” the answer to the growing problem of physical inactivity? *Br J Sports Med* 2008;**42**:562–3. should be **Warden SJ,** Fuchs RK. Are “exercise pills” the answer to the growing problem of physical inactivity? *Br J Sports Med* 2008;**42**:862–3.

Cook J. Jumping on bandwagons: taking the right clinical message from research. *Br J Sports Med* 2008;**42**:563. should be **Cook J.** Jumping on bandwagons: taking the right clinical message from research. *Br J Sports Med* 2008;**42**:863.

Kuipers H, Van’t Hullenaar GAC, Pluim BM, *et al.* Four weeks’ corticosteroid inhalation does not augment maximal power output in endurance athletes. *Br J Sports Med* 2008;**42**:568–71. should be **Kuipers H,** Van’t Hullenaar GAC, Pluim BM, *et al.* Four weeks’ corticosteroid inhalation does not augment maximal power output in endurance athletes. *Br J Sports Med* 2008;**42**:868–71.

du Toit C, Stieler M, Saunders R, *et al.* Diagnostic accuracy of power Doppler ultrasound in patients with chronic tennis elbow. *Br J Sports Med* 2008;**42**:572–6. should be **du Toit C,** Stieler M, Saunders R, *et al.*

Diagnostic accuracy of power Doppler ultrasound in patients with chronic tennis elbow. *Br J Sports Med* 2008;**42**:872–6.

Geertsema C, Williams AB, Dzendrowskyj P, *et al.* Effect of commercial airline travel on oxygen saturation in athletes. *Br J Sports Med* 2008;**42**:577–81. should be **Geertsema C**, Williams AB, Dzendrowskyj P, *et al.* Effect of commercial airline travel on oxygen saturation in athletes. *Br J Sports Med* 2008;**42**:877–81.

Gratze G, Mayer H, Luft FC, *et al.* Determinants of fast marathon performance: low basal sympathetic drive, enhanced postcompetition vasodilation and preserved cardiac performance after competition. *Br J Sports Med* 2008;**42**:582–8. should be **Gratze G**, Mayer H, Luft FC, *et al.* Determinants of fast marathon performance: low basal sympathetic drive, enhanced postcompetition vasodilation and preserved cardiac performance after competition. *Br J Sports Med* 2008;**42**:882–8.

Bessa A, Nissenbaum M, Monteiro A, *et al.* High-intensity ultraendurance promotes early release of muscle injury markers. *Br J Sports Med* 2009;**42**:589–93. should be **Bessa A**, Nissenbaum M, Monteiro A, *et al.* High-intensity ultraendurance promotes early release of muscle injury markers. *Br J Sports Med* 2009;**42**:889–93.

Borrione P, Rizzo M, Spaccamiglio A, *et al.* Sport-related hyperhomocysteinaemia: a

putative marker of muscular demand to be noted for cardiovascular risk. *Br J Sports Med* 2008;**42**:594–600. should be **Borrione P**, Rizzo M, Spaccamiglio A, *et al.* Sport-related hyperhomocysteinaemia: a putative marker of muscular demand to be noted for cardiovascular risk. *Br J Sports Med* 2008;**42**:894–900.

Stamatakis E, Chaudhury M. Temporal trends in adults' sports participation patterns in England between 1997 and 2006: the Health Survey for England. *Br J Sports Med* 2008;**42**:601–8. should be **Stamatakis E**, Chaudhury M. Temporal trends in adults' sports participation patterns in England between 1997 and 2006: the Health Survey for England. *Br J Sports Med* 2008;**42**:901–8.

Nichols AW. Sports medicine clinical trial research publications in academic medical journals between 1996 and 2005: an audit of the PubMed MEDLINE database. *Br J Sports Med* 2008;**42**:609–21. should be **Nichols AW**. Sports medicine clinical trial research publications in academic medical journals between 1996 and 2005: an audit of the PubMed MEDLINE database. *Br J Sports Med* 2008;**42**:909–21.

Shimada H, Suzuki T, Kimura Y, *et al.* Effects of an automated stride assistance system on walking parameters and muscular glucose metabolism in elderly adults. *Br J Sports Med* 2008;**42**:622–29. should be

Shimada H, Suzuki T, Kimura Y, *et al.* Effects of an automated stride assistance system on walking parameters and muscular glucose metabolism in elderly adults. *Br J Sports Med* 2008;**42**:922–9.

Allison GT, Morris SL. Transversus abdominis and core stability: has the pendulum swung? *Br J Sports Med* 2008;**42**:630–1. should be **Allison GT**, Morris SL. Transversus abdominis and core stability: has the pendulum swung? *Br J Sports Med* 2008;**42**:930–1.

Kasahara S, Mashiko H, Niwa S-I. Superior performance in WAIS-R block design among top-level rugby players. *Br J Sports Med* 2008;**42**:632–3. should be **Kasahara S**, Mashiko H, Niwa S-I. Superior performance in WAIS-R block design among top-level rugby players. *Br J Sports Med* 2008;**42**:932–3.

Blatteau J-E, Pény C, Pontier J-M, *et al.* Influence of repetitive open sea dives and physical exercises on right-to-left shunting in healthy divers. *Br J Sports Med* 2009;**42**:634–6. should be **Blatteau J-E**, Pény C, Pontier J-M, *et al.* Influence of repetitive open sea dives and physical exercises on right-to-left shunting in healthy divers. *Br J Sports Med* 2009;**42**:934–6.

Schwellnus M. SportsMedUpdate. *Br J Sports Med* 2008;**42**:637–8. should be **Schwellnus M**. SportsMedUpdate. *Br J Sports Med* 2008;**42**:937–8.