



INTERNATIONAL SOCIETY OF EXERCISE AND IMMUNOLOGY
11th ISEI SYMPOSIUM, NEWCASTLE, AUSTRALIA, 9-12 September 2013
 Exercise Immunology: Prescriptions for Health

ABSTRACT FORM

This form should be read in conjunction with the **ISEI ABSTRACT GUIDELINES**.

These 2 pages have been provided separately to assist you with the submission of your Abstracts in Word format to the Conference Organising Committee and online to the *International Journal of Exercise Science* (IJES).

You **MUST** complete this entire Abstract Form to provide us with details needed to assign your abstract to the correct theme.

Also advise us if you are applying to be considered for one of the Early Career Researcher Awards (Best Poster and Best Oral Presentation).

Send this entire form by E-mail to the ISEI Organising Committee, but **ALSO** follow the guidelines for submission of the Abstract (single page only) to the *IJES*.

ABSTRACT SUBMISSION – DEADLINE 10 May 2013

Title (up to 30 words, Arial, 11 pt, single line spaced, in sentence case. Like this:	Practical application of research outcomes in the field for elite athletes
Authors (Underline the <u>presenting author</u>)	Pyne DB
Department, Institution, Country	Physiology; Australian Institute of Sport; Canberra, Australia.
Address Corresponding Author	Physiology, Australian Institute of Sport, PO Box 176, Belconnen, ACT, 2616, Australia
Select Your Abstract Session Theme Category	Theme 7
Preferred Presentation Form	<input checked="" type="checkbox"/> Oral communication <input type="checkbox"/> Poster Note final decisions on format of presentation will be by the ISEI Scientific Committee
Is the presenter eligible for the Early Career Researcher Awards (poster and oral awards)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

ISEI Abstract –

“Session theme number – 7 Clinical prescriptions for exercise in athletes”

Practical application of research outcomes in the field for elite athletes

PYNE DB

Physiology; Australian Institute of Sport; Canberra, Australia.

ABSTRACT

Coaches, athletes and practitioners are keen to employ effective evidence-based interventions and strategies in the field to reduce the risk of illness compromising training and competitive performance. Factors affecting immune function and the risk of illness in athletes include: the volume, intensity and load of exercise training, degree of exposure to pathogens, underlying health and medical status of individual athletes, lifestyle behaviours including nutrition, sleep and recovery, and psychosocial issues related to training and competition. Given the lack of specific research studies on elite athletes it is necessary to look more broadly at related disciplines including clinical immunology, general medicine, sports medicine, nutrition, psychology, and exercise physiology. Long term planning by organisations, teams or individual athletes should include a yearly sports medicine consultation, review of primary and secondary vaccination schedules, advice on insect avoidance and malaria prevention, review of allergy and asthmatic conditions, establishing a medical network, and managing team and travel logistics. A dental review should also be considered. Environmental issues include strategies for dealing with jet lag, air pollution, water-based pathogens, thermal stress and culture shock when travelling abroad. The effectiveness of illness prevention or sick packs (containing a gel-based hand sanitiser, medicated lozenges, throat gargle, nasal decongestant, vitamins and minerals, and tissues) for immediate field use has been questioned but these are widely used. Athletes should be educated on coughing etiquette and tissue disposal. In terms of physical or exercise training there are several strategies for limiting the risk of training-induced impairments in immune health, including: increasing the frequency of shorter training sessions, reducing the overall weekly training volume or that of individual sessions, avoiding prolonged intensive sessions, reducing the size of load increments in frequency, volume and intensity, employing shorter rather than longer training macrocycles, implementing sufficient recovery after intense workouts and at the end of a long competitive season or the major competition for the year. There should be a review or debriefing session after competition involving medical, scientific and management staff, a written report of the medical events of the season and/or main competition, referral of athletes experiencing long-term or recurrent/persistent illness for medical review, and early preparations for the following season. A combination of experimental research addressing both efficacy (laboratory) and effectiveness (field) of interventions and strategies, emerging technologies, and the hard-earned clinical and practical experience of physicians, athletes and coaches, will pave the way for improved management of illness in athletes.