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The benefits of a systematic assessment of respiratory health in illness-susceptible athletes

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A systematic approach to the identification of respiratory problems is deliverable within a world-class sport performance programme and identifies previously unrecognised and potentially modifiable factors in illness-susceptible athletes <https://bit.ly/37lM4ck>

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ABSTRACT Respiratory tract illness is a leading cause of training and in-competition time loss in elite athletes. Asthma is known to be prevalent in athletes, but the coexistence of other respiratory problems in those deemed to be susceptible to respiratory tract illness is unknown. The aim of this study was to apply a comprehensive prospective approach to identify respiratory problems and explore relationships in athletes with heightened respiratory illness susceptibility.

UK World Class Performance Programme athletes prospectively completed a systematic review of respiratory health with validated questionnaires and respiratory-focused investigations, including studies of nasal flow, exhaled nitric oxide, spirometry, bronchoprovocation testing and allergy testing.

Systematic respiratory health assessment was completed by 122 athletes (55 females, mean±SD age 24±4 years). At least one respiratory health issue, requiring intervention, was identified in 97 (80%) athletes and at least two abnormalities were found in 73 (60%). Sinonasal problems were the most commonly identified problem (49%) and 22% of athletes had a positive indirect bronchoprovocation test. Analysis revealed two respiratory health clusters: 1) asthma, sinus problems and allergy; and 2) laryngeal and breathing pattern dysfunction. Respiratory illness susceptible athletes had 3.6±2.5 episodes in the year prior to assessment and were more likely to have allergy (OR 2.6, 95% CI 1.0–6.5), sinonasal problems (2.6, 1.1–6.0) and symptoms of laryngeal (5.4, 1.8–16.8) and breathing pattern dysfunction (3.9, 1.1–14.0) than nonsusceptible athletes (all $p<0.05$).

A systematic approach to respiratory assessment identifies a high prevalence and coexistence of multiple respiratory problems in illness-susceptible athletes.