Physical activity is also an allergy prevention measure

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To the Editor—I read with interest the excellent article "Guidelines for allergy prevention in Hong Kong" by Chan et al[1] in the June 2016 issue of the *Hong Kong Medical Journal*. I agree with the authors but there is one lifestyle aspect worth mentioning. Recent studies show that children and adults with a low level of physical activity have a significantly increased risk for asthma and eczema.[2-5] Regular aerobic activity such as walking, cycling, running, playing ball, or swimming has the potential to improve exercise capacity, bronchial hyperresponsiveness and lung function, and reduces serum proinflammatory cytokines (eg interleukin-4 and -6, and monocyte chemoattractant protein 1). In my opinion the timeless rule "SIT LESS, MOVE MORE, EVERY DAY!" should also be added to the allergy prevention measures in Hong Kong.

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Authors' reply

To the Editor—We thank Dr Hofmeister for highlighting an emerging area in allergy prevention. The evidence for the association of lack of physical activity with allergic diseases in both adults and children is interesting[1-4] but the results were obtained mainly through population-based cross-sectional studies. Although there may be a true association between a decrease in physical activity and more atopic tendencies, one cannot exclude reverse causality of decreased physical activity in these groups of atopic patients, for instance an exacerbation of eczema after sweating; heat and dermatographic stimulation; or shortness of breath in exercise-induced asthma. It is essential now to conduct prospective studies to test the hypothesis when some of the confounding factors that may discourage atopic patients to exercise are tightly controlled. Of course, we agree that adequate exercise helps to control body weight that is known to be associated with asthma and eczema as mentioned in the guidelines.[5-7] We will continue to review the important area of physical activity in relation to allergy and will update our guidelines accordingly.

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