



# Aeroallergen Sensitizations with Special Reference to Fungi Sensitization among the Community of Sultan Idris Education University, Malaysia

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**Abstract:** The present study is aimed to profile the prevalence and determine the risk of aeroallergen sensitization including fungi on gender, ethnicity, and age groups. 225 of the university community population were interviewed using a standard questionnaire by allergists to collect information on demographic including gender, ethnicity, and age. To confirm the prevalence of the aeroallergens sensitization, the gold standard procedure, i.e. skin prick testing was performed using commercial aeroallergens. Of the subjects, 93 (41.3%) were categorised as atopic. The most prevalent positive SPT among the general and the atopic population were house dust mites, (32.4%; 78.5%), followed by German cockroach (20%; 48.3%), fungal (7.55%; 18.2%), and cat dander (4.8%; 11.8%) respectively. The prevalence of fungi sensitization among the atopic population is doubled to the general population and considerably high compared to the World Allergy report. Among the 17 fungal sensitized subjects, 9 (52.9%) were monosensitized to *Aspergillus fumigatus*, 4 (23.5%) to *Penicillium notatum*, 2 (11.8%) to *Candida albicans*, and one (5.9%) to *Alternaria alternata*. One (5.9%) subject was oligosensitized to both *Alternaria alternata* and *Aspergillus fumigatus*. Male subjects were with the higher risk to fungi sensitization compared to female, Chinese ethnicity subjects to other ethnicities, and subjects with  $\geq 20$  years of age to other age groups. Sensitization is high to both *Aspergillus fumigatus* and *Penicillium notatum*. Thus, it is an indicator not to be taken lightly as these fungi are also highly prevalent at UPSI and have been associated with the sick building syndrome.

**Keywords:** Indoor aeroallergen sensitization, Fungi sensitization, Risk group sensitization

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