

# Accepted Manuscript

Ten questions concerning thermal comfort and ageing

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PII: S0360-1323(17)30189-0

DOI: [10.1016/j.buildenv.2017.05.008](https://doi.org/10.1016/j.buildenv.2017.05.008)

Reference: BAE 4898

To appear in: *Building and Environment*

Received Date: 18 January 2017

Revised Date: 2 May 2017

Accepted Date: 8 May 2017

Please cite this article as: van Hoof J, Schellen L, Soebarto V, Wong JKW, Kazak JK, Ten questions concerning thermal comfort and ageing, *Building and Environment* (2017), doi: 10.1016/j.buildenv.2017.05.008.

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## TEN QUESTIONS CONCERNING THERMAL COMFORT AND AGEING

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### Abstract

This '10 Questions' contribution provides an overview of thermal comfort in relation to ageing and the way the indoor environment can contribute to and improve well-being and health of older adults to age-in-place. The number of older people is increasing rapidly and these demographical changes put a large stress on the health care system. Furthermore, as most older people wish to age-in-place, adequate ageing-in-place strategies become significantly important. Housing impacts health, therefore appropriate and comfortable housing is a key determinant to facilitate older people to age-in-place. One of the aspects of concern is thermal comfort; however, the thermal requirements of older people differ from those of young adults. They are also relatively vulnerable to thermal conditions outside the generally accepted range. This '10 Questions' contribution addresses issues related to thermal comfort and ageing and argues that the current models for assessing thermal comfort are not sufficiently accurate to be used for older adults. It also discusses approaches to facilitate ageing-in-place including the use of smart home technologies. The paper is based on extensive literature review of numerous relevant studies relating to thermal comfort, physiological differences between older and younger people, the relationship between thermal environment, comfort and health, as well as housing design and smart home technologies for older people.

### Keywords

Thermal comfort, thermal sensation, aging, elderly, temperature, heat stroke, climate change, health

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