

## Fire Risk Assessments in Care Homes; Corridor Lengths - How Long is Too Long?

**Adrian Gouldin BSc (Hons) MRICS GFireE reports on evacuation issues associated with residential Care Homes and suggests assessments that should be carried out.**

Fire evacuation in residential care homes is often difficult and complex as most of the residents will be unable to self-evacuate due to restricted mobility and/or medical conditions.

There is a huge reliance on Care Home Staff to move residents to a place of relative safety. The more residents involved, the longer the process takes.

To gain additional evacuation time, Care Homes are usually divided in to numerous separate 'fire compartments'. The provision of these fire compartments slows down the spread of fire and smoke, which enables residents to be evacuated to adjacent (relatively safe) fire protected areas, rather than evacuating directly to an external assembly point. This process is known as progressive evacuation.



### How big can these fire compartments and corridors be?

Guidance within the *Building Regulations' Approved Document B - Fire Safety*, suggests that corridors providing access to more than one storey exit should be no more than 12m long. The specific Building Regulations guidance for residential care homes also suggests that each fire compartment should contain no more than 10 residents, however, this maximum number is also dependant on the level of staff assistance required for an evacuation.

The Governments' guide for fire risk assessments in existing residential care homes in England, Wales & Northern Ireland suggests that any corridor over 30m long needs to be split in half. It also suggests that, where higher risk residents such as wheelchair users occupy the compartment, the maximum travel distance should be around 10m; please refer to table 1 below.

| Escape routes                                | Suggested range of travel distance  |
|--|---|
| Where more than one escape route is provided | 10m in higher fire-risk area <sup>Note 1</sup><br>18m in normal fire-risk area<br>25m in lower fire-risk area <sup>Note 2</sup> |
| Where only a single escape route is provided | 6m in higher fire-risk area <sup>Note 1</sup><br>9m in normal fire-risk area<br>15m in lower fire-risk area <sup>Note 2</sup>   |

Table 1 – Extract from HM Governments guide for fire risk assessment in residential care premises, suggested travel distance

The travel distance is measured from the far side of the furthest bedroom within a compartment to the nearest place of relative safety. The 10m travel distance typically comprises of 4m within the bedroom and 6m within the corridor. The 6m in the corridor fits with the Building Regulation suggested corridor length of 12m, assuming you enter the corridor in the centre.

So according to Building Regulations guidance, the maximum recommended corridor length is 12m, however, when you read the Scottish Governments' guidance, it suggests that Scottish high risk residents can travel 80% further than their English, Welsh & Irish counterparts, being able to travel 18m (typically comprising of 4m in the bedroom and 14m in the corridors).

## Conclusion

Corridor lengths - how long is too long? This is not easily answered, if corridor lengths exceed 12m and the recommended compartment evacuation time of 2 ½ minutes is likely to be significantly exceeded, a risk assessment should be carried out and suitable remedial action taken.

Unfortunately, as there is no definitive specific guidance on maximum corridor lengths within Care Homes, the fundamental decision lies with the Care Home Manager.

The Home Manager will need to consider:-

- The needs and number of higher risk residents.
- The type/number of evacuation aids available.
- The distances of travel involved.
- The number of staff available.
- Whether or not the fire affected compartment could be evacuated within around 2 ½ minutes.

Also note that NASHICS' additional fire safety guidance recognises that the evacuation of a fire compartment within 2 ½ minutes is unlikely to be achieved in Care Homes and that it should be seen as 'a starting point upon which to make an assessment'.

## References:

1. HM Government: Approved Document B Fire Safety Volume 2 - Buildings Other Than Dwelling Houses
2. HM Government: Fire Safety Risk Assessment - Residential Care Premises
3. Scottish Ministers - Practical Fire Safety Guidance for Care Homes

### About the Author

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The views expressed in this article are those of the author and are not presented as those of **NASHICS**

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