



Reducing Radon

Quick Guide 1

Improving natural under-floor ventilation

Improving the ventilation under a suspended floor can effectively reduce radon levels of up to 500 Bq m^{-3} ; occasionally higher levels can be reduced. The following simple steps explain how improved under-floor ventilation can be achieved.

1 Clear obstructions from airbricks and vents

Blockages in vents and airbricks can reduce ventilation to the under-floor space. They are often caused by:

- leaves, soil or gravel
- raised paving or driveways constructed over existing vents
- cavity wall insulation
- householders covering vents to reduce draughts etc
- vents constructed below the ground level filling with debris

2 Improve the existing ventilation through the cavity walls

Walls may be constructed with vents that have an indirect or no link to the under-floor space. Vents should be sleeved through the wall, to prevent obstruction by cavity wall insulation or cold air entering the cavity (Figure 2).



(a)



(b)

Figure 1 (a) partially blocked air vents and (b) a partially blocked sunken vent

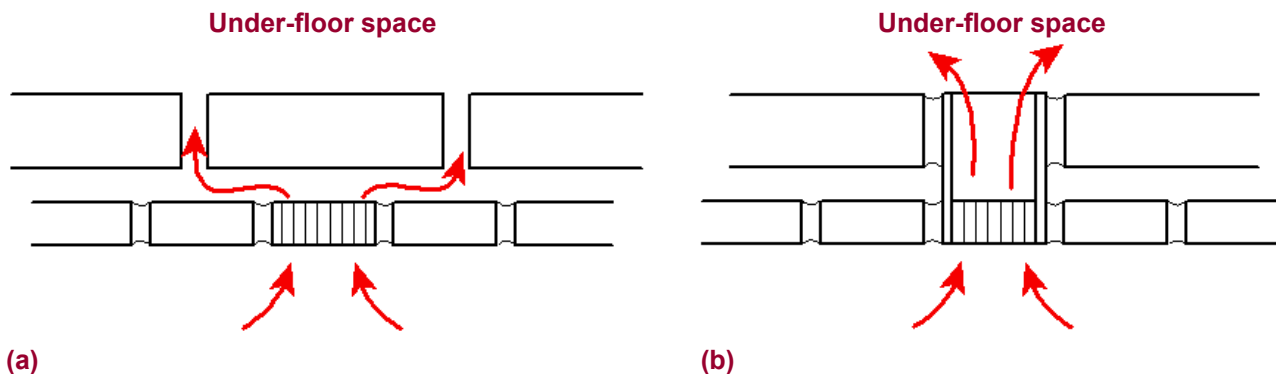


Figure 2 (a) poor indirect ventilation to under-floor space and (b) good ventilation sleeved through a cavity wall

3 Install additional vents

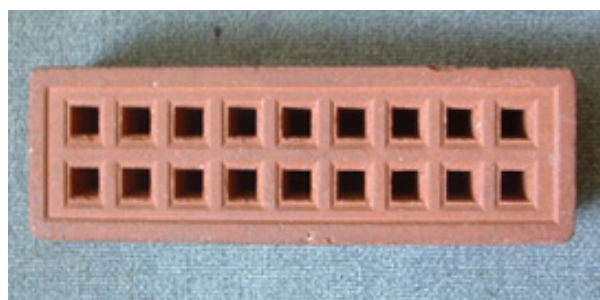
Ventilation to the under-floor space is often limited because there are not enough, or sometimes no, under-floor vents:

- install additional vents through the external walls to the under-floor space
- ideally, vents should be positioned on opposite walls
- typically air vents (the size of a house brick) should be spaced every 1.5 to 2.0 m around the perimeter of the building
- plastic louvered vents have a greater open area and provide better ventilation
- cowls can be fitted in exposed locations to baffle gusts of wind

Tip: air vents are widely available from builders' merchants and DIY stores (see Figure 3).

Insulating service pipes

When under-floor ventilation is increased it may be necessary to insulate services that are piped under the floor, such as central heating or water pipes: this is to reduce the risk of freezing.



(a)



(b)



(c)

Figure 3 Typical vents: (a) terracotta vent, (b) vent with a cowl and (c) plastic vents

Who can do this work?

The works described here are all minor building works which can be done by any builder or competent DIY householder.

REMEMBER

Do a follow-up RADON TEST to check radon levels are reduced sufficiently.

More detailed guidance on improving under-floor ventilation is available in

BRE Good Repair Guide GRG 37 Part 1: Radon solutions in homes: improving under-floor ventilation, which can be downloaded free at www.ukradon.org or purchased in hard copy from www.brebookshop.com.

Disclaimer

This information sheet has been produced by BRE and PHE. It should be noted that BRE and PHE cannot guarantee that the measures described on this sheet will reduce the radon level in your home; however, similar measures have regularly proven successful elsewhere in the UK.

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