



Housing Health and Safety Rating System (HHSRS)

Case Studies

Group A
Protection Against
Accidents

Hazard A3
Falling Between
Levels

Example A3.5
Post-1979
Detached House
(Non-HMO)

Vulnerable Group
All persons aged
5 years and under

Multiple Locations
Yes

Related Hazard A2
Falling on Stairs etc.



Dwelling

Description

This is a four-bedroomed detached house built in the mid-1980s but extensively modified since then. It is rented to a family of two adults and three children. The property is generally in good repair throughout.



1

Front exterior

Deficiencies

Description

There is a raised patio area of smooth concrete flagstones across the whole of the rear of the house, with a further lower level of flagstones below. The garden slopes gently across the width of the site so there is a drop of 700mm onto a gravelled area at one side, increasing to an 860mm drop onto concrete flagstones at the other side. There is no guard rail or barrier at the edge of the raised patio. When viewed from the house, the change in level between the two levels of concrete flagstones is not immediately apparent. There are no exterior lights at the rear of the property.



2
Rear garden showing
changes of levels

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject		Score				BI	Baseline Indicator
9	External Space	0	1	2	3	9.1	External yards, paths, steps, accessways and surrounds within the curtilage of the dwelling shall be in good repair, even and well drained. Accessways must be suitable non-slip surfaces, have adequate lighting and should not have slopes of sufficient gradient to present a falls risk. This includes consideration to unevenness, trip risks and poor slip resistance, to any steps or surfaces within external space that is provided, to the front door, yard and garden. Where there are drops of more than 300mm from paths, patios, steps, terraces or garden areas guarding will be necessary where there are high risks of falling. All boundaries should be clearly defined and enclosed by well-maintained and suitable walls or fences. This also applies to structure, accessways, security doors and lifts.
13	Guards	0	1	2	3	13.1	Every stairway, porch, patio, landing, balcony walkway, terrace and hall located more than 600mm above an adjacent area shall have a structurally sound guard, between 900mm and 1100mm high, measured vertically from the floor. The guard shall be firmly fastened, capable of supporting normally imposed loads and in good condition. Balusters with a minimum thickness of 10mm shall be placed at intervals that do not allow passage of a sphere greater than 100mm in diameter. There shall be no climbable cross-pieces.

Other Relevant Matters

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Score				Matters affecting Likelihood of Harm
0	1	2	3	Window operation
0	1	2	3	Window sill heights
0	1	2	3	Window cleaning
0	1	2	3	Window guarding

Score				Matters affecting Harm Outcomes
0	1	2	3	Height above ground
0	1	2	3	Nature of ground
0	1	2	3	Non-safety glass

Likelihood of Harm

Scale Points

Likelihood of harm from this hazard over the next twelve months

Very Likely		1 in 1
		1 in 2
		1 in 3
		1 in 5
Likely	Example Dwelling	1 in 10
		1 in 20
		1 in 30
		1 in 50
Unlikely		1 in 100
		1 in 200
		1 in 300
		1 in 500
Very Unlikely		1 in 1,000
		1 in 2,000
	National Average	1 in 3,000
		1 in 5,000

Score

1 in 10

Justification of Scoring
Likelihood of Harm

Lack of demarcation along the edge of the raised patio combined with absence of any guarding or handrail increases, over the course of a year, the likelihood of a fall causing injuries that require medical intervention. Absence of external lighting also adds to the risk of falls occurring.

Young children lack situational awareness and could jump, walk off, crawl over or fall from the raised patio when playing in the garden. Whilst they are less likely to sustain an injury when falling the shorter distance onto gravel, a fall at the higher end onto concrete slabs, or a fall onto the hard edges on the brick-faced steps could result in bruising, fractured bones or a head injury/ concussion.

Harm Outcomes

Extreme		Severe		Serious		Moderate			
Death, permanent paralysis, etc.		Heart attack, serious fractures, etc.		Chronic stress, severe concussion, etc.		Broken fingers, moderate cuts, etc.			
Very Likely	50.0	Very Likely	50.0	Very Likely	50.0	Example Dwelling	68.0		
	30.0		30.0		30.0				
	20.0		20.0		20.0				
Likely	10.0	Likely	10.0	Likely	10.0	National Average	80.0		
	5.0		5.0		5.0				
	2.0		Example Dwelling		2.0				
Unlikely	1.0	Unlikely	1.0	Unlikely	1.0	These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%			
	0.5		0.5		0.5				
	0.2		0.2		0.2				
Very Unlikely	0.1	Very Unlikely	0.1	Very Unlikely	0.1				
	Example Dwelling + National Average		0.0		0.0				
Score		Score		Score				Score	
0.0%		2.0%		30.0%				68.0%	

Justification of Scoring

Harm Outcomes

Although the height is by no means excessive (compared to falls from a window, for example), falling head first onto concrete would be more likely to cause severe, and serious harms such as major fractures or concussion, thus resulting in the score being higher than the national average.

Safety Ratings

Scenario 1
As described in this document

Key

Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Low	100

Likelihood of Harm 1 in 10			
Extreme 0.0%	Severe 2.0%	Serious 30.0%	Moderate 68.0%
Category	Band	Score	
1 Legal duty to take action	High	10,000	
2 Discretion to take action	Example Dwelling	1,168	
	Medium	1,000	
	Low	100	
National Average		2	
Score		1,168	

Scenario 2

After works meeting baseline indicators

Likelihood of Harm 1 in 3,000			
Extreme 0.0%	Severe 0.0%	Serious 20.0%	Moderate 80.0%
Category	Band	Score	
1 Legal duty to take action	High	10,000	
2 Discretion to take action	Medium	1,000	
	Low	100	
Score	Example Dwelling + National Average	2	

Justification of Scoring

After works meeting baseline indicators

Baseline indicators would require the installation of suitable guarding, between 900 and 1100mm high along the edge of the raised patio, except for immediately in front of the steps. The guard should be capable of supporting normally imposed loads and designed to avoid gaps greater than 100mm, with no climbable cross-pieces. A solid structural glass balustrade could be installed if the owner wanted to retain a clear view over the garden.

Baseline indicators would also require the installation of external sensor lighting capable of illuminating the raised patio and step area after dark. These measures combined would return the likelihood and harm outcomes to the national average.

Scenario 3

After further improvements

Likelihood of Harm			
Extreme	Severe	Serious	Moderate
Category	Band	Score	
1 Legal duty to take action	High	10,000	
2 Discretion to take action	Medium	1,000	
	Low	100	
Score			

Justification of Scoring

After further improvements

Further works not required

Other Relevant Legislation and Guidance

Updates

Matters for consideration listed in this section were correct at the time of publication. For the most up-to-date legislation and guidance in these areas, please visit the [gov.uk](https://www.gov.uk) website.