



## Health inequalities: Falls and fractures, accidents and injuries

### Introduction

Falls and fractures are a common and serious health issue faced by older people in England<sup>1</sup>. Among the general population, people aged 65 and older have the highest risk of falling. Around a third of people aged 65 and over and around half of people aged 80 and over fall at least once a year<sup>1</sup>. Falling is a cause of distress, pain, injury, loss of confidence, loss of independence and mortality<sup>1</sup>.

### Prevalence and risk factors

Adults with learning disabilities experience a higher rate of injuries and falls compared to the general population<sup>2</sup>. People with learning disabilities who live in community or residential settings may fall more frequently, and at a younger age, compared to the general population<sup>3</sup>.

A recent systematic review of falls in people with learning disabilities found that the pooled proportion of people with learning disabilities who fell during the study observation period was 39% (95% CI 0.35, 0.43)<sup>3</sup>. Similarly, a further review suggests that between 25 and 40% of people with learning disabilities experience at least one fall per year<sup>4</sup>. This is similar to the rate of falls among older adults in the general population, but this rate is evident throughout the lives of people with learning disabilities<sup>4</sup>.

A range of risk factors have been identified as being associated with the risk of falls among people with learning disabilities. These include:

- epilepsy
- visual impairment
- the use of prescribed medications
- balance or gait issues
- impaired mobility
- physical activity<sup>4</sup>

The association between sight loss and falls is particularly important, given that people with learning disabilities are 10 times more likely to have a serious sight problem<sup>5</sup>. A study in Sweden found that people with learning disabilities were more

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likely to be prescribed at least one drug that increased the risk of falls than other people (Relative Risk 2.31)<sup>6</sup>. Epilepsy is common among people with learning disabilities<sup>7</sup> and is a risk factor for fall injury in people with learning disabilities<sup>4</sup>. People with learning disabilities are also at higher risk of developing osteoporosis<sup>8</sup> which increases the fracture risk resulting from a fall.

### Impact on people with learning disabilities

Falls are the leading cause of injury, including fractures, in people with learning disabilities<sup>5</sup>. A study in Germany found that people with learning disabilities were more likely to suffer femoral fractures and other fractures compared to the general population, with the age standardised incidence ratio being 4.80 for women (95% CI 3.44-6.72) and 7.06 for men (95% CI 5.70-8.74)<sup>9</sup>.

Falls are a serious problem for people with learning disabilities because of their potential consequences<sup>4</sup>. These may include loss of confidence, injury, and death<sup>4</sup>. A study in Sweden found that people with learning disabilities were more likely to require specialist care after a fall and also more likely to obtain injuries to the head, compared with the general population<sup>10</sup>.

Fear of falling can result in avoidance of activities, social isolation and increasing frailty<sup>5</sup>. Reduced physical activity resulting from fear can in itself increase the risk of falls<sup>5</sup>. While there is limited literature on the psychological impact of falls on people with learning disabilities, family carers of people who have fallen report constant fear and anxiety<sup>5</sup>.

### Primary prevention, healthcare and treatment

Given the high risk of falls in people with learning disabilities, and the associated risk of injury, proactive primary prevention should be incorporated as part of person-centred health action planning<sup>5</sup>. Promotion of healthy lifestyles will normally include encouraging physical activity (accompanied by individual risk assessment and management where appropriate), and regular health checks (including vision, hearing, medication, and balance and gait problems). Health check results then need to be related to the person's individual circumstances to consider the individual's risk of falls and how to mitigate the risks, while supporting people to live full and active lives, and medication reviews may highlight fracture risks linked to osteoporosis.

Following a fall, or a 'near miss', a more structured approach should be adopted that incorporates multi-factorial risk assessment and management, tailored to the individual and their circumstances<sup>5</sup>. In one area of Scotland, a physiotherapy-led falls pathway service for people with learning disabilities was set up to promote exercise and prevent falls and this led to improvements in balance and mobility and a decrease in the number of falls<sup>11</sup>. Further information on preventing falls can be

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found in the Public Health England guidance on preventing falls in people with learning disabilities<sup>5</sup>.

## Social determinants

Socioeconomic (for example, education), housing (for example poor building design), and/or neighbourhood characteristics (for example poor lighting in public places) have been reported to be associated with a higher risk of falls among older adults in the United States<sup>12</sup>. However, there does not appear to be any research relating to social determinants of falls or other accidents among people with learning disabilities. The quality of social care support received by people with learning disabilities may influence the risk of falls or other accidents but there does appear to be any research on this issue.

## Resources

Public Health England (2019) [Preventing falls in people with learning disabilities: making reasonable adjustments](#) An accessible version [Preventing falls in people with learning disabilities](#) is also available.

## References

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<sup>1</sup> Public Health England (2019) [Falls: applying All Our Health](#)

<sup>2</sup> Finlayson J and others. Injuries, falls and accidents among adults with intellectual disabilities. Prospective cohort study. *Journal of Intellectual Disability Research*, 2010. 54: p. 966-980

<sup>3</sup> Ho P and others. Incidence and prevalence of falls in adults with intellectual disability living in the community: a systematic review. *JB I Database of Systematic Reviews and Implementation Reports*, 2019. 17(3): p. 390-413

<sup>4</sup> Finlayson J. Fall prevention for people with learning disabilities: key points and recommendations for practitioners and researchers. *Tizard Learning Disability Review*, 2018. 23(2): p. 91-99

<sup>5</sup> Public Health England (2019) [Preventing falls in people with learning disabilities: making reasonable adjustments](#)

<sup>6</sup> Axmon A and others. Fall-risk-increasing drugs and falls requiring health care among older people with intellectual disability in comparison with the general population: A register study. *PLoS one*, 2018. 13(6): p. e0199218-e0199218

<sup>7</sup> Robertson J and others. Prevalence of epilepsy among people with intellectual disabilities: A systematic review. *Seizure: European Journal of Epilepsy*, 2015. 29: p. 46-62

<sup>8</sup> Srikanth R and others. Osteoporosis in people with intellectual disabilities: A review and a brief study of risk factors for osteoporosis in a community sample of people

with intellectual disabilities. *Journal of Intellectual Disability Research*, 2011. 55(1): p. 53-62

<sup>9</sup> Büchele G and others. Fracture risk in people with developmental disabilities: results of a large claims data analysis. *Osteoporosis International*, 2017. 28(1): p. 369-375

<sup>10</sup> Axmon A, Ahlström G and Sandberg M. Falls resulting in health care among older people with intellectual disability in comparison with the general population. *Journal of Intellectual Disability Research*, 2019. 63(3): p. 193-204

<sup>11</sup> Crockett J and others. Promoting exercise as part of a physiotherapy-led falls pathway service for adults with intellectual disabilities: a service evaluation. *Journal of Applied Research in Intellectual Disabilities*, 2015. 28(3): p. 257-64

<sup>12</sup> Ryu E and others. Individual housing-based socioeconomic status predicts risk of accidental falls among adults. *Annals of Epidemiology*, 2017. 27(7): p. 415-420.e2