

Hip Protectors: A Summary

Based on the CSA, or Canadian Standards Association, Express Document (EXP) 08 Hip Protectors, first edition, 2017, which overviews the labelling and testing of hip protectors

What are hip protectors?

Wearable hip protectors help reduce the force during a fall. They have two parts:

- an impact protector, which reduces the force on the hip during a fall.
- a system that holds the protector in place, such as a garment.

There is a wide range of hip protectors on the market. Some hip protectors are designed to withstand one impact and then be replaced. Other hip protectors are designed to withstand several impacts.

Hip protectors do not reduce the risk of falling, but they do help reduce the risk of a hip fracture during a fall. Hip protectors can be worn by anyone at risk for a hip fracture to enhance safe mobility. More information on preventing falls is available on the Public Health Agency of Canada website: phac-aspc.gc.ca/seniorsaines/ips-pba-eng.php.

Why are hip protectors important?^{1,2}

- One in three adults over the age of 65, living at home, and almost two in three adults in long-term care fall at least once per year. Osteoporosis Canada recommends the use of hip protectors for all residents of long-term care.
- In Canada, there are more than 28,000 hip fractures every year.
- One in four individuals die within one year of a hip fracture and the related medical treatment costs are in excess of \$1 billion.

See CADTH's work on hip protectors at cadth.ca/hip-protectors including a guidance card: *Hip Protectors in Long-Term Care Facilities*.

What information is to be supplied by the manufacturer?

Labelling should include the following product information and instructions:

- how to position the protector correctly over the hip
- the body size (e.g., waist) or weight for a given product size (e.g., S, M, L, XL)
- cleaning and disinfecting instructions, and the number of times the garment may be cleaned and disinfected (to a maximum of 30 times, unless stated otherwise)

- whether the hip protector is for a single individual or can be used by additional individuals after cleaning and disinfecting
- warnings of any known issues with other medical devices, inappropriate uses, and a warning that not all hip fractures can be prevented, even when the hip protector is worn correctly
- whether the hip protector is to be replaced by a new device after a single impact; for reusable products, information should be included on the number of reuses and how to check for damage to the device after the hip protector has sustained an impact
- how much the hip protector reduces the force during a fall (known as the *protective value*); the number (between 0 and 100) indicates how much the hip protector reduces the force during a fall — the larger the number, the greater the protection.

Other important information to know about hip protectors:

- Hip protectors should be comfortable, and easy to put on and take off.
- Well-fitting and well-designed garments, or skin-friendly tape to keep the hip protector in position, is very important for the hip protector to function properly. Hip protectors should stay in place during walking, sitting, bending, and during a fall.
- Hip protectors should not prevent independent dressing, toileting, or the use of incontinence products.

For more information

This information is based on the CSA, or Canadian Standards Association, *Express Document (EXP08) Hip Protectors*, first edition, 2017. It provides information about the selection, use, and care of a hip protector. All hip protectors can be tested for biomechanical performance prior to wearing, in accordance with Annex A of the Express Document.

The Express Document has been prepared by the Development Committee on Hip Protectors. An Express Document is established to provide quick solutions in response to an identified market need based on a common understanding and as an alternate solution to standardization.

References

1. Nikitovic M, Wodchis WP, Krahn MD, Cadarette, SM. Direct health-care costs attributed to hip fractures among seniors: a matched cohort study. *Osteoporosis International*. 2013;24(2):659-669.
2. Scott V, Wagar L, Elliott S. Falls and related injuries among older Canadians: fall-related hospitalizations and intervention initiatives. Prepared on behalf of the Public Health Agency of Canada, Division of Aging and Seniors. Victoria (BC): Victoria Scott Consulting; 2010.

Resources

CADTH Knowledge Mobilization Tools: cadth.ca/hip-protectors
CSA EXP08-17 Express Document: shop.csa.ca
CADTH: cadth.ca
CSA Group: csagroup.org

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