Type II helmets are strengthening protection against head injuries for construction workers

Canada's largest construction employers are mandating Type II protection for their employees and trade partners

by ConstructConnect™ Media

For years, regulations in jurisdictions across Canada have offered a choice between Type I hardhats, designed to reduce force as a result of an impact to the top of the head, and Type II helmets, designed to reduce force as a result of an impact to the front, back, sides, and top of the head.

Accumulating evidence indicates that wearing Type II helmets is reducing the number of severe injuries and fatalities for North American construction workers. What's making the difference? Type II helmets feature a retention system that includes a chin strap to keep the helmet in place, providing a more secure fit and providing protection against dropped objects. In addition to providing the same topside protection, they also provide front, side, and rear impact protection — even when workers slip, trip or fall.

The U.S. Occupational Safety and Health Administration (OSHA) reported that in a six-year period from 2015 to 2021, 68 per cent of all work-related traumatic brain injuries (TBIs) in the construction industry were caused by falls, the type of incident that tends to separate workers from their head protection. Falling objects caused 12 per cent of work-related TBIs.

The Canadian Construction Safety Council (CCSC), established in 2024 by a dozen of Canada's largest construction companies, recently mandated the use of Type II helmets with integrated adjustable four-point straps for all of workers employed by its members. All trade partners working with CCSC member companies will be required to wear Type II helmets in 2026.

While safety statistics on the effects of the CCSC switch are being compiled, anecdotal information supports the decision, says Steve Chaplin, senior vice president, health, safety and environment at CCSC member EllisDon.

“With the old style hardhats, our workers experienced falls from step ladders and ended up in the hospital,” he says. “Since we've moved to the new helmets, people have fallen and cracked the helmet and liner, but they've gotten up. Instead of a traumatic brain injury, they may have a minor concussion.”

EllisDon employees were initially concerned that Type II helmet chin straps might be uncomfortable, but most of the company’s workers now say they’ve found the helmets more comfortable than Type I hardhats. The Type II helmets are also designed to be outfitted with accessories such as visors, hearing protection and head lamps.

“When we explain that it’s like a bicycle or skiing helmet that needs to stay on when you fall, it’s not much of a stretch to think about construction helmets the same way,” Chaplin says.

For CCSC member Bird Construction, efforts to ease employees into the transition included working with manufacturers to describe the safety advantages of Type II helmets, presenting and discussing statistics on head injuries, and highlighting the improved comfort factor. Bird also issued new helmets with near-field communication (NFC) tags that store medical and contact information that can be scanned by the company’s emergency response team in case of an incident.

“Our CEO and COO appear in a roll-out video describing the connection between better head protection, our company values and eliminating serious injuries and fatalities,” says Peter Lineen, executive vice president, health, safety & environment with Bird.

Mark Scherer, executive vice president, chief safety officer with CCSC member Aecon Group, notes that many Type II helmets are available, but that companies in every province and territory should ensure that regulations covering their workplace support a particular model.

“Some jurisdictions allow CSA or ANSI certifications, while others allow only CSA,” he says. “One example is a Type II helmet, which has ANSI certification but not CSA. Even though we believe it’s one of the best quality helmets, it can be used in some provinces but not all.”

The evolution toward Type II helmets is gaining momentum. They’ve been endorsed by the U.S. National Academy of Construction. OSHA has mandated their use for its own safety inspectors across the U.S. and recommended them as a better alternative for construction workers.

“BC regulations offer employers and workers a choice between the two types of head protection, but with the emergence of new evidence, Type II Helmets are emerging as the safer choice,” agrees Mike McKenna, executive director of the British Columbia Construction Safety Association (BCCSA) and steering committee member of the Construction Federation of Construction Safety Associations. “The BCCSA supports the member companies of the CCSC who put their workers and trade partners first by making informed choices about the type of personal protective equipment that demonstrates the greatest effectiveness in reducing fatalities and serious injuries.”

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