

California Department of Public Health
Occupational Health Branch

**FATALITY ASSESSMENT AND CONTROL EVALUATION PROGRAM
(CA/FACE)**

A grocery worker died when he slipped and fell off a ladder at a grocery market
Case Report: 19CA001

SUMMARY

A 72-year-old part-time grocery worker (victim) in a grocery market fell backward off an 8-foot straight ladder and landed on the concrete surface below. The victim was working outside. It was raining and the ladder steps were wet. No one witnessed the fall but a co-worker saw the victim lying on the ground conscious. Co-workers assisted the victim to his car by co-workers where he later lost consciousness. A co-worker called 911 and he was transported by ambulance to a local hospital where he died from his injuries 20 days later. The CA/FACE investigator determined that, in order to prevent similar future incidents, grocery markets should:

- Establish and enforce a safety training program that includes the hazards of climbing ladders. If ladders are used in wet conditions, safety precautions should be taken.
- Ensure that older workers who work on ladders are assessed by a healthcare provider for increased fall risk.

INTRODUCTION

On January 14, 2019, at approximately 11:00 a.m., a 72-year-old Hispanic male grocery worker fell off an 8-foot straight ladder that was leaning against a 3-tiered storage shelf unit at a grocery market. The victim was transported by ambulance to a local hospital where he died from his injuries 20 days later. The CA/FACE program received notification of the incident from the Cal/OSHA weekly report on February 5, 2019. On March 1, 2019, the CA/FACE investigator traveled to the incident location and interviewed the grocery market owner and a co-worker who was present on the day of the incident. The investigator also took pictures of the incident scene and reviewed the county coroner and fire department reports of the incident. Medical records from the local hospital where the victim was treated were also obtained and reviewed.

EMPLOYER

The employer of the victim was a small independent grocery market that was open daily. The grocery had been in business for 18 years and had three employees and approximately five part-time workers working variable hours at the time of the incident.

WRITTEN SAFETY PROGRAMS AND TRAINING

The grocery market did not have a written injury and illness prevention program (IIPP), and there were no safety meetings. Training was typically accomplished by on-the-job-training (OJT) – observing other workers perform their work tasks. There was no specific training on the safe use of ladders.

WORKER INFORMATION

The victim was a 72-year-old Hispanic male who worked at the market for the past several years on a part-time basis two to three days a week for approximately four hours per day. He mostly drove a delivery truck for the market delivering customer orders and on occasion would help around the store when not driving. His additional job duties included stocking and removing supplies from the store shelves. The victim did not have any known underlying cardiac or neurological conditions.

INCIDENT SCENE

The incident scene was a grocery market located in a warehouse. In the front of the market were three shelving units used to store and display products sold at the market. These shelving units were outside and partially protected from the environment by the warehouse roof extension (Exhibit 1).



Exhibit 1. The incident scene with shelving units outside.

INVESTIGATION

On the day of the incident, it was raining and the victim was stocking shelves in the market. At approximately 11:00 a.m., the victim climbed a straight ladder that was leaning against an outdoor shelving unit. According to the coroners' report, the victim was on an 8-foot ladder when his foot slipped and he fell backward off the ladder to the concrete below. It is unknown how far the victim fell, or if the ladder slipped from the shelving unit. No one witnessed the fall but other workers in the area saw the victim lying on the ground. Co-workers helped the victim walk to his vehicle to sit and rest. The victim told the other workers that he was okay and just needed to rest for a little while. The other workers went back to their duties. Approximately 30 minutes later, they went to check on the victim and found him unresponsive in his vehicle. 911 was called and emergency responders arrived at the scene within minutes. The victim was transported by ambulance to a local hospital where he was treated for his injuries. He succumbed to his injuries 20 days later.

CAUSE OF DEATH

According to the death certificate, the cause of death was sequelae to blunt head trauma.

RECOMMENDATIONS

The CA/FACE investigator determined that, in order to prevent future incidents, grocery markets should:

Recommendation #1: Establish and enforce a safety training program that includes the hazards of climbing ladders. If ladders are used in wet conditions, safety precautions should be taken.

Discussion: In this incident, the employer did not hold safety meetings, and did not have safety training program that included safe ladder use. If the employer had provided training on ladder use and safety, the victim may have taken the necessary steps to minimize the risk of falling. It is possible the rainy conditions also contributed to this incident. There are a number of safety precautions that should be used if ladders are in wet environments. These include proper footwear with a deep tread to prevent slipping, gloves with a good grip to stop hands from slipping, and ladder stops to prevent the base of the ladder from shifting (see 8CCR§3276. Portable Ladders).

Recommendation #2: Ensure that older workers who work on ladders are assessed by a healthcare provider for increased fall risk.

Discussion: In this incident, the victim was a 72-year-old employee. Moncada and Mire (2017) found that workers older than 65 years are at greater risk of work-related deaths due to falls,

slips, and trips than the overall worker population. Gait and balance problems are more common in older adults and are a major cause of falls in this population. Changes in gait and balance that occur in older adults can be related to normal effects of aging or underlying medical conditions (Ambrose, Paul, & Hausdorff, 2013). Older workers who perform manual labor are exposed to additional factors for falls, such as bending, reaching, lifting, walking on uneven surfaces, and climbing steps or ladders (Stevens, Mahoney, & Ehrenreich, 2014; Talbot, Musiol, Witham, & Metter, 2005). When older workers do fall from a ladder, they tend to sustain more serious injuries than do younger workers (Con et al., 2014).

Employers of older workers who work on ladders should ensure that these employees be assessed by a healthcare provider for increased fall risk. The healthcare provider should review medical history, current functional level, and perform a focused physical exam. Older workers who have vision impairment, hearing impairment, chronic conditions, or take certain medications have an increased rate of falls. Additionally, the healthcare provider should also ensure that older workers can climb a ladder safely by using advanced balance screening tests.¹

Older workers who have moderate to high risks of falls should avoid working on ladders, steps, and uneven surfaces. They should also avoid working in areas that are wet, dimly lit, or cluttered.

REFERENCES

Subchapter 7. General Industry Safety Orders
Group 1. General Physical Conditions and Structures Orders
Article 4. Access, Work Space, and Work Areas

§3276. Portable Ladders.

Ambrose AF, Paul G, Hausdorff JM. Risk factors for falls among older adults: a review of the literature. *Maturitas*. 2013 May;75(1):51-61.

Con J, Friese RS, Long DM, Zangbar B, O'Keeffe T, Joseph B, Rhee P, Tang AL. Falls from ladders: age matters more than height. *J Surg Res*. 2014 Oct;191(2):262-7.

Stevens JA, Mahoney JE, Ehrenreich H. Circumstances and outcomes of falls among high risk community-dwelling older adults. *Inj Epidemiol*. 2014 Mar 20;1(5).

Talbot LA, Musiol RJ, Witham EK, Metter EJ. Falls in young, middle-aged and older community dwelling adults: perceived cause, environmental factors and injury. *BMC Public Health*. 2005 Aug 18;5:86.

¹ Fullerton Advanced Balance Test, Balance Error Scoring System, and Mini-BESTest are some of the validated screening tests to assess balance among older adults. These tools involve testing for balance on an uneven foam surface and may detect more subtle deficits in balance.

Moncada LVV, Mire LG. Preventing falls in plder Persons. Am Fam Physician, 2017 Aug 15; 96 (4): 240-247.

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FATALITY ASSESSMENT AND CONTROL EVALUATION PROGRAM

The California Department of Public Health, in cooperation with the Public Health Institute and the National Institute for Occupational Safety and Health (NIOSH), conducts investigations of work-related fatalities. The goal of the CA/FACE program is to prevent fatal work injuries. CA/FACE aims to achieve this goal by studying the work environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact. NIOSH-funded, state-based FACE programs include: California, Kentucky, Massachusetts, Michigan, New York, Oregon, and Washington.

Additional information regarding the CA/FACE program is available from:

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