



In-Station Training

TM 23-40 Impalement



Author

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Purpose

A medical response for an impaled object can present a variety of challenges which are increased when the patient is above grade level.

Learning Outcomes

Firefighters and officers perform an effective size-up; select an appropriate strategy, and implement tactics based on the strategic decision-making model when confronted with an impalement incident.

Conducting the Drill

This incident occurred when a worker who was trimming trees fell and became impaled on a metal fence at Rancho Laguna Mobile Estates, 13655 Highway 8 Business, El Cajon, California on August 8, 2023, at 09:30 (Earnest & Ramirez, 2023; Sweeny, 2023, & Jenkins, 2023). Review the map and photos (Figures 1-3) to gain an understanding of the area and occupancy involved.

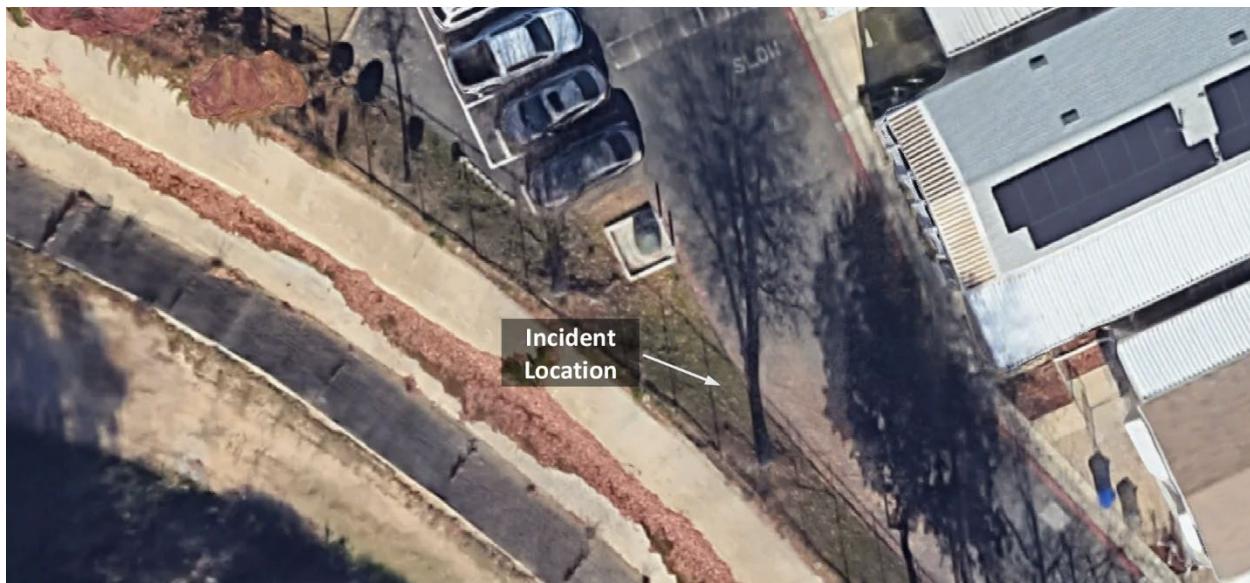
Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [Map, 13655 Highway 8 Business, El Cajon, CA].

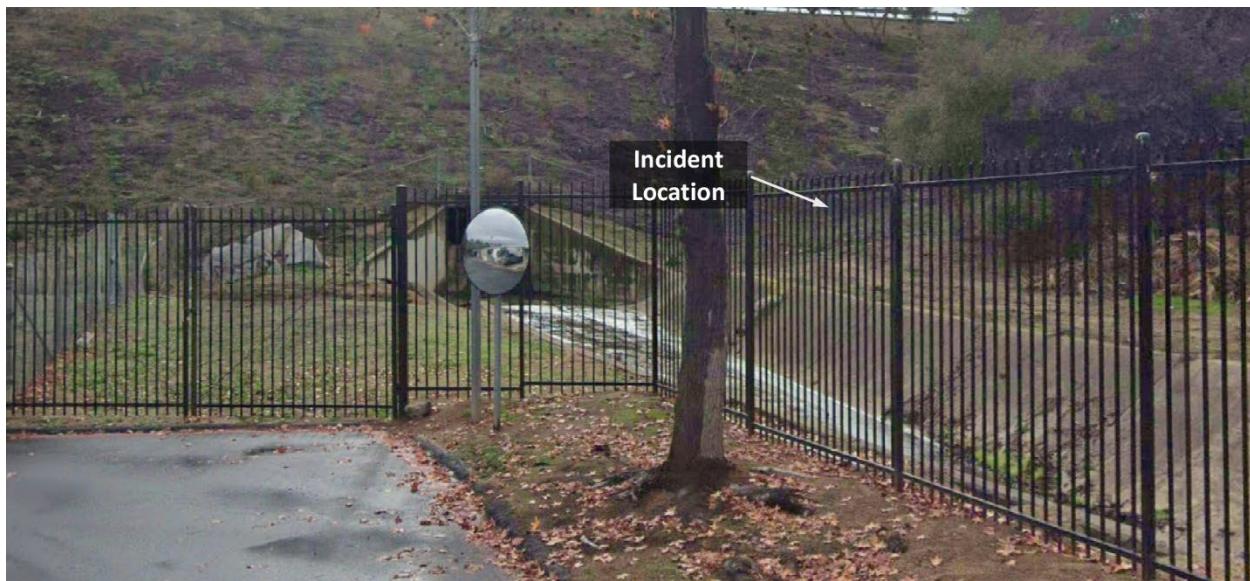
<https://bit.ly/44Q4uh6>.

Figure 2. Aerial View



Note: Adapted from Google. (2023b). [Aerial view 13655 Highway 8 Business, El Cajon, CA].
<https://bit.ly/3rjSabm>.

Figure 3. Incident Location Approaching from the North Northwest



Note: Adapted from Google. (2021a). [Street view 13655 Highway 8 Business, El Cajon, CA].
<https://bit.ly/3PPzfP8>

You have been dispatched to the Rancho Laguna Mobile Estates, 13655 Highway 8 Business at 09:30. You are the company officer or AIC of the first arriving engine and have your company's typical staffing. The temperature is 78° F with no appreciable wind from the north (Weather Underground, 2023).

1. What critical factors would you consider when dispatched and during response and what conversations would you have with your crew while responding?

While responding you hear a command officer, another engine and advanced life support ambulance with typical staffing for your agency go enroute. The second engine and ambulance will arrive approximately seven minutes after you followed by the command officer.

You arrive to find an adult male impaled on a fence at the rear of the mobile home park as illustrated in Figure 4.

Figure 4. Arrival



Note: Adapted from Google. (2021b). [Street view 13655 Highway 8 Business, El Cajon, CA]. <https://bit.ly/3rx3wZr>.

2. State your initial radio report (IRR) exactly as you would transmit it to dispatch.
3. What specific actions would you take (as the company officer) immediately upon arrival and exiting the apparatus and what task orders you would give your crew?

The victim's left upper arm just distal to the armpit is impaled on an 8' high metal fence as illustrated in Figure 4. He is conscious and oriented to person, place, time, and event.

4. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?

5. State your update report exactly as you would transmit it to dispatch.

6. State the tactical assignment you would give the next arriving engine exactly as you would transmit it.

7. Based on the anticipated effectiveness of your tactical operations, state your conditions, actions, and needs (CAN) report that you would provide to the first arriving command officer as part of command transfer to IC #2?

8. What potential injuries might the victim have based on the mechanism and location of injury?

9. How did you physically stabilize the patient prior to beginning extrication?

10. What tools and equipment do you have on your engine that could cut the metal fence that was encountered in this incident? Consider alternatives.

11. Would your choice of tool for cutting the fence change if the fence was constructed with tubular steel, aluminum, or solid steel?

Additional Learning

As illustrated in Figure 5, firefighters from the Lakeside Fire Protection District used a hydraulic cutter to remove a section of the fence allowing the victim to be brought to the ground and transported (without removing the impalement).

Figure 5. Extrication Operations



Note: Adapted from Lakeside Fire Protection District. (2023). [Facebook post, tree trimmer impaled on a fence]. Retrieved September 22, 2023, from <https://bit.ly/3EOm9v1>.

Read [*Impalement Training*](#) (Brothers Helping Brothers, 2021) and watch [*Training Minutes: Fence Impalement*](#) (Fire Engineering, 2016). Did these training resources provide you with any other considerations or alternative tactics for this type of incident? Get your hands on the tools that could be used in this type of incident and review their capabilities and limitations with your crew.

References

Brothers Helping Brothers. (2021). Impalement training. Retrieved September 22, 2023, from <https://bit.ly/3rhaeTw>.

Earnest, M. & Ramirez, J. (2023). *Man falls from tree; impaled by fence in East County*. Retrieved September 20, 2023, from <https://bit.ly/46dnlye>.

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