

## INCIDENT INVESTIGATION ASSIGNMENT INSTRUCTIONS

### Head Injuries in Children Under 18 Resulting from Football, Hockey, and Lacrosse Incidents (NON-NEISS)

DOCUMENT NUMBER:

DATE OF INCIDENT:

CATID: TYNN34 2020

FOLLOW-UP REQUESTED

HAZARD ANALYSIS  COMPLIANCE

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COMPLIANCE CONTACT: Mel Altman, CDI, 301-504-7419, [maltman@cpsc.gov](mailto:maltman@cpsc.gov)

**This assignment involves a non-NEISS incident.**

#### ASSIGNMENT MESSAGE:

The Sport Helmets Project will explore the various types of head injuries that occur during youth contact sports while helmets are being worn by the victims. The project will have investigators review incidents that involve various sporting helmets (*i.e.*, football, hockey, lacrosse, *etc.*). The goal is to collect information to assist CPSC staff in making recommendations to update voluntary standards for helmets worn during contact sports and to update CPSC's information campaign.

We are interested in finding out the types of helmets worn by youth (18 and under) today, including the relative levels of safety offered by the various designs. We will need to consider incident information in evaluating the adequacy of the existing voluntary standards for helmets (*e.g.*, ASTM, NOCSAE); as well as in determining if there is the need for a mandatory helmet standard. **Of particular interest are incidents in which the athletes incurred a head or neck injury while wearing a helmet, or in which it appeared that the helmet didn't function properly (*e.g.*, broke, came off, *etc.*) in an incident situation.**

Using the instructions in Appendix 139 (copied below), conduct an IDI on the attached incident involving the youth (teen) head injury while wearing a helmet during team contact sports (*e.g.*, football/hockey/lacrosse).

*Should you determine **no helmet was worn** during the time of the incident/injury then the investigation may be abbreviated without asking the full set of questions (many of which only apply if a helmet was worn). An abbreviated IDI under this circumstance (no helmet involvement) should contain the Form 182, and include in the synopsis the following statement: "The victim was not wearing a helmet at the time of the incident." This abbreviated IDI should also contain the same statement from the synopsis (regarding not wearing a helmet) on the list of exhibits page as well as Exhibit 1-Contact page.*

#### **For incidents where a helmet was involved in the incident:**

Provide a brief summary of the incident sequence. Indicate the factors that contributed to the incident, such as product failure, collision, loss of control, surface hazard, stunting, *etc.* Describe the resulting injuries, particularly if they involved the head area. **Be sure to note that the victim was wearing a helmet.**

*For ease of data retrieval, please make sure the following key words are used in the synopsis as appropriate: **helmet, collision, head, concussion, struck, or fell.***

#### Description of Victim Contact with Product

- Describe incident scenario, including all injuries or deaths sustained. Use diagrams to illustrate the victim's movements during the incident, including the distance and height of the fall.
- Note the approximate speed the victim was travelling (*e.g.*, fast vs slow, sprinting vs in a defensive stance). Describe any factors which appeared to contribute to the incident, including product failure, collision, loss of control, surface hazards, stunting, slipped, *etc.*

- If the victim was hit with another piece of sports equipment (stick, ball) to his or her head (or the helmet), try to determine the area(s) hit, and the object or surface on which it impacted. Document with diagrams and/or photographs any evidence (scratches, cracks, material transfer, *etc.*) of helmet impact.
- If a head injury occurred, attempt to determine why. Ask victim for his/her opinion of the performance of the helmet.
- Determine if the helmet contributed to the incident in any way (*e.g.*, blocked vision, caused overheating, *etc.*)
- Find out if chin strap was secured and if helmet stayed on head at the time of the incident. Indicate if chin strap broke or helmet broke or cracked during the incident.
- Find out if the victim always wears a helmet. If not, probe for the circumstances under which they might not (*e.g.*, when they forget, when it is too hot, when practicing, *etc.*)
- Find out to whom the helmet belongs. If it belongs to the victim, determine if there were specific helmet features that were important in the selection of this helmet (*e.g.*, safety certification, design, cost, *etc.*). Determine if the helmet was provided by an adult, school, or a sports program.
- Specify how many years victim had been playing the sport, the frequency of playing (*e.g.*, daily, weekends, vacations, *etc.*), and how long (active minutes) the victim plays per day or per week. Specify how long (in minutes) the victim plays in an organized game (*e.g.*, on a school or recreational team), how long the victim normally plays in an organized practices (*e.g.*, on a school or recreational team), and how long the victim plays in a non-organized setting.

#### Description of Product

- Describe the design of the helmet (*e.g.*, a hardshell helmet may be composed of polystyrene foam covered with a heavy plastic covering; a softshell helmet may be made of lightweight polystyrene foam with no plastic covering; a thin shell helmet may be made of polystyrene foam with a light or thin plastic covering). Include the ventilation features of the helmet; the extent of head coverage; the presence or absence of features to protect the face; and the type of attachment straps on the helmet (*e.g.*, adjustable on one or both sides, made from one or more than one piece, riveted to the helmet or attached in some other way, the type of buckle, *etc.*). Obtain color photographs, if possible.
- Indicate the presence of a SNELL (Snell Memorial Foundation) NOCSAE (National Operating Committee on Standards for Athletic Equipment, or other safety certification sticker on the helmet. Describe any other markings, cautions, and whether or not labeled to discard if involved in an impact incident. Identify the date when the helmet was last reconditioned via the reconditioning sticker, if applicable.
- Report the manufacturer name, brand name, model/serial number, and price of the helmet.
- Specify the size of the helmet (for a child/adult), and describe how well it fit the victim (and who did the fitting). Find out if the helmet was purchased specifically for the wearer or for someone else.
- If the helmet was owned by the victim, specify whether the helmet was purchased new or used, and the date and place (*i.e.*, name and type of store) of purchase.
- Find out if helmet had ever been involved in a previous impact incident, and if so, severity and description of damage to helmet. NOTE: IF THE HELMET HAD EVER BEEN INVOLVED IN A MAJOR IMPACT INCIDENT AND IS STILL BEING USED, ADVISE THE VICTIM TO REPLACE IT.
- Determine if the product has internal batteries that need to be charged. Determine the electrical components (helmet sensors, lights, *etc.*) that need to be charged. If the product has a helmet sensor, request a copy of the impact data for that incident.
- Determine if the consumer used a non-integrated head impact sensor. If so, please determine the make, model, and serial number of the non-integrated sensor. Please identify the location where the sensor was attached to the helmet or directly to the victim's head. Please request a copy of the impact data for that incident.

#### Description of Victim

- Indicate the victim's age, sex, height, weight, and any competence-reducing factors (*e.g.*, impaired vision, physical handicaps, medication, *etc.*) that may have been present at the time of the incident.
- Describe how the victim was clothed at the time of the incident (including -any other protective equipment that may have been worn). Indicate if anything beside a helmet was worn on the head (*e.g.*, headphones, hat, head cover, *etc.*).
- Find out if the victim was the offensive or defensive player.

- Describe the nature and extent of the injuries, with special attention to the points of impact (and if possible, the sequence of impact) of the body parts involved. Indicate the body part(s) treated, and the type of treatment received. If a head injury was involved, find out if the victim lost consciousness, or felt any dizziness, nausea, or headaches. Determine if there were any lasting or permanent effects due to the incident. Obtain the medical records of treatment, including hospital records, ER records, and records of subsequent treatment received, particularly for head injuries. If death occurred, obtain police, medical examiner, coroner, or other relevant reports.
- Determine if there were other players involved at the time of the incident. If so, describe the nature and extent of any injuries incurred and indicate whether or not they were wearing a helmet.
- Determine past head injuries that the victim may have had and obtain details about the type of injury, diagnosis, medical attention, length of time effects lasted, did the person lose consciousness, how long was the person unconscious, did you observe any other changes in alertness, speaking, coordination or other signs of injury, where was the head or other parts of the body struck, can you provide any information about the force of the injury, and was the person's body whipped around? Also, determine when the player was allowed to return to play after the injury. Determine if the victim used specific 'return-to-play' guidelines to determine when they could return to play. Identify which specific 'return-to-play' guidelines were used, if applicable.

Description of Environment

- Describe the terrain and surface on which the victim was playing at the time of the incident. Note the condition of the surface (*e.g.*, slick from gravel, water, ice, leaves; uneven with ruts, bumps, potholes, *etc.*).
- Indicate time of day of the incident, and the amount of daylight or other lighting present.
- Describe the weather conditions at the time of the incident, including temperature, precipitation, humidity, and visibility.
- Report the location of the incident (*e.g.*, type of field, ice rink, on the street, other unpaved surfaces or trails; *etc.*).

Instructions for Photographing and Diagraming Helmet and Incident Sequence

- We are interested in obtaining photographs of the helmet to illustrate the construction, design, fit, and areas of failure or damage. We would also like a step-by-step, detailed diagram of the incident sequence. Include measurements of the distance(s) the victim(s) fell or were thrown, the location of objects impacted, the direction of the fall, and the orientation of the head and body at the time of impact.
- If a video that captured the incident exists, obtain a copy of the video.

Sample Collection

- Whenever possible, collect the incident sample. If you are unsure whether a sample should be collecting in a particular situation, please contact one of the primary contacts listed above.

**Please include all primary and all backup contacts in the distribution of the completed IDI.**

----- Area below will be completed in Data Systems -----

**Person(s) to Contact:**

**Guidelines: Appendix 139**

**Task Number:**

**Date:**

**Assigned to:**

**Processed by: lew**