First aid: electrical burns

Interventions for electrical burns

Electrical burns, even ones whose external appearance seems minor may cause very serious internal injuries and serious heart rhythm problems. The victim may also be thrown or suffer from violent muscle twitching due to the power of the current. Even if the injury is apparent only at the electrical current entry and exit points, the first aider must constantly supervise the victim because the risks of trauma and complications are high. For this reason, all electrical burn victims require transport by ambulance and medical assessment.

1. Make sure that the situation involves no danger and protect yourself (gloves).
2. Make sure that prehospital emergency services have been informed.
3. If the victim is still in contact with the electrified source, warn the specialized resources and wait for permission before taking action.
4. Ask the victim to remain still.
5. Manually keep his head in a neutral position (without traction).
6. Control all problems found during the ABCs*.

7. Complete the secondary survey if possible, vital signs, collection of information.
8. Find the electrical current entry and exit points.
9. Cover the wounds with a dry dressing.
10. Reevaluate the condition: primary survey and vital signs every 5 minutes.

If it is an accident caused by a broken power line (overhead wire, underground cable) or by an accidentally electrified object:

- Do not touch anyone who is in contact with the power line or any other electrified object. There is no sure way to determine whether all danger has subsided.
- Immediately call the police department, the fire department or Hydro-Québec’s customer service, which will dispatch an emergency crew. Continue to monitor the electrical source in order to prevent other accidents.
- Prohibit access to the site.
- Do not try to move the power line(s), even using wooden objects. Wood may conduct electricity because of the moisture it contains, or even the sweat on the hands of the person holding it.

First aid

Apply the ABC

Evaluate the state of consciousness

If unconscious:
A  Open the airway
B  Check breathing
C  Check circulation

If cardiopulmonary arrest:
Perform cardiopulmonary resuscitation (CPR):
- 30 chest compressions
- 2 breaths

Remove the victim as soon as possible (ambulance, medical centre)

Reference
CSST. First Aid in the Workplace.

Note. – The information contained in this guideline is not exhaustive and does not replace current standards, laws and regulations.