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# Тези

**77-ї наукової конференції професорів,  
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# СЕКЦІЯ ТЕРАПІЯ ТА РЕАБІЛІТАЦІЯ

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## FIRST AID IN CASE OF BURNS

Burns are one of the most common household injuries affecting both adults and children. This issue is particularly acute in the context of childhood injuries, as according to statistics from the World Health Organization, up to 40% of household burn cases involve children under the age of five. The main causes of such injuries include exposure to boiling water, steam, hot oil, flame, or chemicals. Burns also frequently occur as a result of accidents, disasters, or military actions, where timely assistance is critically important. It is pre-medical aid – that is, the initial actions taken before the arrival of medical professionals – that often determines the victim's condition, the depth of the injury, and the prognosis for recovery. A lack of timely or appropriate response can lead to complications, wound infections, or even death. Therefore, it is crucial not only to recognize the type and degree of a burn but also to know how to act in the first minutes after the injury [1].

According to the European classification, burns are categorized as:

– Superficial – do not penetrate beyond the upper layers of the skin and heal without surgical intervention;

– Deep – involve the dermis and subcutaneous layers, often requiring surgical treatment and skin grafting.

Additionally, burns are classified by etiology:

– Heat burns – caused by high temperatures (flame, boiling water, hot objects). These account for up to 95% of cases;

– Chemical burns – caused by acids, alkalis, or heavy metal salts;

– Electrical burns – occur when electrical current passes through the body;

– Radiation burns – rare, associated with radiation exposure [2].

The algorithm for providing pre-medical assistance depends on the type, area, and depth of the burn. The primary task is to eliminate the harmful factor: extinguish flames, remove the chemical agent, or take off hot clothing.

In the case of heat burns, the victim should be removed from the danger zone. The affected area should be cooled with cool (not cold!) water for 10-15 minutes. This reduces tissue temperature and limits burn depth. Ice must not be used, as it can worsen the condition. Next, apply a sterile moist dressing or clean cloth. Do not apply oils or other substances to the burn. If the pain is severe, administer a painkiller. Arrange transportation to a medical facility.

In case of chemical burns, contaminated clothing should be removed. The affected area should be rinsed with running water for at least 15 minutes. Depending on the chemical, apply an aseptic dressing with a suitable neutralizer (for example, a 3-4% solution of sodium bicarbonate for acids; citric or acetic acid for alkalis) [3]. After wound treatment, the victim must be urgently transported to a medical facility or a burn center.

Inhalation of hot air or smoke can also damage the respiratory system. It is necessary to immediately clear the airways and ensure access to fresh air. If needed, perform cardiopulmonary resuscitation (CPR).

In conclusion, pre-medical aid for burns is the first and most crucial step in the rescue chain. The speed and correctness of the assistance provided determine not only the victim's immediate condition but also the overall recovery outlook. This is especially important in situations where professional medical help may be unavailable – such as during accidents, disasters, or in war zones. Acquiring basic first aid knowledge should be a mandatory component of training for teachers, parents, students, and anyone who may find themselves in a life-saving situation.

#### *References:*

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