

Intentional or Unintentional Injury of Immediate Physiological Damage and Physical Stress

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Description

Any physiological damage to living tissue caused by immediate physical stress is an injury. Asphyxiation, overexertion, blunt trauma, penetrating trauma, burning, toxic exposure and intentional or unintentional injury are all examples of injuries. Any part of the body can sustain an injury and various injuries are associated with various symptoms. Depending on the severity of the injury, major injury treatment is typically administered by a medical professional. Among humans, traffic collisions are the leading cause of accidental injury and injury-related death. Though injury can be a factor in any of these, injuries are distinct from chronic conditions, psychological trauma, infections, and medical procedures. Human injury classification and description systems have been developed by a number of major health organizations.

Cause of Serious Traumatic Injury

Mechanisms of trauma an external object striking the body with force results in a wound, which is a traumatic injury a severe traumatic injury that has the potential to result in disability or death is known as major trauma. Traffic collisions are the most common cause of serious traumatic injury. Traumatic injury is the leading cause of death in people under the age of 45. Blunt trauma injuries are caused by an external object's forceful impact. Internal bleeding and bruising from ruptured capillaries beneath the skin, abrasion from scraping against the superficial epidermis, lacerated tears on the skin or internal organs, or bone fractures are all examples of injuries that can result from blunt trauma. Penetrating trauma injuries are caused by external objects entering the tissue of the body through the skin. Crush injuries are a severe form of blunt trauma damage that apply a large force to a large area over a longer period of time. Perforated injuries result in both an entry wound and an exit wound, whereas puncture wounds only result in an entry wound. High-velocity penetration injuries, on the other hand, are caused by ballistic projectiles, such as gunshot wounds or injuries caused by shell fragments. A cavity in the tissue is caused by puncture injuries. Burn injuries are caused by contact with extreme temperatures, chemicals, or radiation. Burns have varying effects based on depth and size.

Burns of the superficial or first degree only affect the epidermis and cause brief pain. Burns with a superficial partial thickness result in bleeding blisters and necessitate dressing. Due to the burning away of the skin, deep partial-thickness burns are dry and less painful, requiring surgery. Full-thickness or severe singeing influence the whole dermis and is helpless to disease. The most common type of burn, thermal burns, are caused by contact with excessive heat, such as contact with flame, contact with hot surfaces, or scalding burns caused by contact with hot water or steam. Fourth-degree burns reach deep tissues like muscles and bones and result in the loss of the area affected. Frostbite is a type of burn that occurs when the skin comes into contact with too much cold. Frostbite occurs when water crystallizes in the tissue, causing cellular damage and deep tissue damage. Radiation burns are brought on by exposure to ionizing radiation, whereas friction burns are brought on by contact with external objects and result in a burn and abrasion. The majority of radiation burns are caused by ultraviolet radiation from the sun or by prolonged exposure to radiation during medical procedures like repeated radiographs or radiation therapy. Electrical burns are caused by contact with electricity as it enters and exits the body. Electricity penetrates the skin deeper than in other types of burns, affecting lower tissue, and the full extent of electrical burns is frequently obscured. Additionally, they will result in extensive tissue destruction at the entry and exit points. While high-tension power cables can cause serious electrical injuries at work, most home electrical injuries are minor. Serious electrical injuries can also result from lightning strikes. Chemical burns are caused by contact with corrosive substances like acid or alkali. Tetanic spasm, which causes respiratory arrest or interference with the heart, which causes cardiac arrest is both common causes of fatal electrical injuries.

Ingestion of Corrosive Substances

Despite the fact that numerous chemicals can harm tissue, chemical burns are more uncommon than most other types of burns. Hydrochloric acid sulfuric acid, carbon monoxide, chlorine, and ammonia are the most common chemical-related injuries. White phosphorus is one example of a chemical weapon that causes chemical burns. Chemical burns to the

larynx and stomach can be caused by ingestion of corrosive substances. Other mechanisms Toxic injury is caused by the ingestion, inhalation, injection, or absorption of a toxin. Although some burn-inducing chemicals react with water to cause more severe injuries, the majority of chemical burns are treated with extensive application of water to remove the chemical contaminant. This could happen as a result of a drug-drug interaction or ingesting a poison. Toxins in smoke, gases, dust, and aerosols can be inhaled, which has the potential to result in respiratory failure. Different toxins can result in a variety of injuries, many of which target specific organs. Chemical weapons, house fires, industrial accidents, and structural fires can all result in the release of respiratory toxins. After being inhaled, some toxicants, like carbon monoxide, may affect other parts of the body. Asphyxia is an injury caused by a lack of oxygen to the body. It can be brought on by a variety of factors, including drowning, inhaling certain substances, strangulation, obstruction of the airway, trauma to the airway, apnea and others. Hypoxia, which can result in acute lung injury or acute respiratory distress syndrome and damage to the circulatory system, is asphyxia's most immediate injury. Cerebral hypoxia and ischemia, in which the brain receives insufficient

oxygen or blood and suffers neurological damage or death, are the most severe injuries caused by asphyxiation. Alveolar collapse, atelectasis, intrapulmonary shunting, and ventilation perfusion mismatch are among the specific injuries associated with water inhalation. Simple asphyxia is brought on by a lack of external oxygen supply. Exposure to a substance that prevents the body from transporting or using oxygen results in systemic asphyxia. Azides, carbon monoxide, cyanide, inhaling smoke, hydrogen sulfide, methemoglobinemia-inducing substances, opioids, and other systemic asphyxiants can all result in this. Asphyxiation can be treated with oxygen and ventilation, and some asphyxiants have antidotes that can be used to treat them. Overuse or overexertion injuries can happen when the body is strained by use, causing damage to the bones, muscles, ligaments, or tendons. Sports wounds are much of the time abuse wounds, for example tendinopathy. Over-expansion of the tendons and ligaments can bring about injuries and strains, respectively. Dreary inactive ways of behaving, for example, broadened utilization of a PC or a genuinely monotonous occupation might cause a dull strain injury. Expanded utilization of splendidly lit screens may likewise cause eye strain.