

## CHILDREN IN DISASTERS AND WARS

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### Children, Disasters, and Wars

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So far, there has been no strict system of medical service to children in case of large disasters. Many organizations: International Federation of Red Cross and Red Crescent Societies; International Committee of Red Cross; UNICEF; WHO; and others, organize enormous humanitarian, but not medical help to children in disasters and wars. However, children not only need food and medicine, they need the skills of various kinds of pediatric specialists. Personal experience in helping children from different countries and in different situations has shown that the closer the specialized medical help gets to children, and the earlier it is given to them by trained personnel, the better are the results of treatment.

Currently, the most serious task is to establish coordinative contacts between the various state, governmental, intergovernmental, and nongovernmental organizations that provide medical help to children in disasters. Time, money, and children are being lost to delay.

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### Impact of Armed Conflicts on Children

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The first objective of this presentation is to analyze the impact of disasters and, more specifically, wars and civil disturbances on the world's child population. During war, 80% of the population most affected are civilians, especially children and women. The impact of wars and armed conflicts on children is diverse, varying from easily detectable casualties, disabilities, and malnutrition, to more complex psycho-social disturbances.

The second objective of the presentation is to illustrate the ways in which the United Nations Children's Fund is responding to the needs of children affected by armed conflicts within the framework of UNICEF's emergency programs.

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### Complex Assessment of Health Status of Children's Population Resulting from the Chernobyl Nuclear Power-Plant Accident

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**Objective and Methods:** This study reports the results of observations of the health status of children exposed following the nuclear power-plant accident.

**Results:** The status examinations demonstrate negative dynamics in its basic indices. Extension of diseases among children in controlled areas had almost doubled by 1989, and has remained at this level since. The number of healthy children is decreasing (62% in 1987–1988 and 38% in 1992). The number of kids with chronic pathology is growing (9% in 1987 and 28% in 1992).

The most pronounced changes in health indices are observed in certain groups of exposed children. After the accident, the occurrence of a regular pattern of diseases has been observed among children with thyroid doses  $\geq 2$  Gy. Another significant group includes those children borne by women who were pregnant at the time of the accident. The entire population of children at exposed to the Chernobyl accident is at risk for the development of psychosomatic pathology.

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### Children in Zones of Ecological Calamities

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**Objectives:** One of the regions in which environmental pollution by industrial waste has become an ecological disaster is the Republic of Bashkortostan, the largest oil industrial center in the Commonwealth of Independent States. More than 75% of oil production is concentrated in its capital, Ufa, which naturally predetermines the chemical composition of the anthropogenic outlet into the atmosphere, both its quantitative and qualitative distribution. The problem has become most urgent in pediatrics.

**Methods:** Studies have examined the health of children in regions with various degrees of atmospheric pollution by oil wastes, specifically their immune and hormonal status.

**Results:** Correlation of changes between indices of hormonal activity and humoral specific defenses indicate a trend towards an increasing role of peripheral hormones with immune inhibitory effect.

**Conclusions:** These correlations can be used to examine any group of children in large industrial centers, so as to allow the development of pathogenically grounded recommendations for sanitary measures. They should stimulate further investigations into biomonitoring and its introduction into the practice of ecological expertise of dwelling agglomerations.

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### Experience in Assisting Child Victims of the 1988 Armenia Earthquake

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**Introduction:** During the dramatic 1988 earthquake in Armenia, nearly 25,000 people died and 32,500 were injured. Among these were 3,232 children who experienced the follow-

ing types of injuries: 2,007 had different types of impairment of the locomotor system; 653 had closed fractures; 286 had open fractures; 377 received treatment for crush syndrome; 56 received amputations; and seven had double amputations.

**Methods:** To help the injured children, a two-step assistance process was organized: 1) prehospital; and 2) specialized care.

**Results:** The best results were achieved when the specialized medical care was provided close to the location of the disaster. The general results proved to be better when children were concentrated in specialized hospitals where they were treated by pediatricians of various specialties.

**Conclusions:** At present, medical help to children with trauma consequences is a problem due to the blockade of the Republic and acute lack of medical supplies and materials.

## PSYCHOLOGICAL EFFECTS OF DISASTERS

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### Post-Traumatic Stress Disorder after Impending Threat

*Lundin T*

Mass emergencies and disasters regularly will lead to an overwhelming threat. The somatically injured and those who have escaped uninjured, have experienced a real or existential threat to their lives, well-being, or future health.

Most disaster victims have been assumed to cope well with this situation. However, follow-up studies of disaster-affected persons over the last two decades have revealed a high percentage with post-traumatic stress disorders (PTSD).

The etiology and symptomatology of this disaster-specific mental disorder will be presented, as well as a brief review of some recent studies. Guidelines for secondary prevention (crisis intervention) and treatment of the post-traumatic stress syndrome resulting from a disaster situation will be discussed.

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### Psychological Stresses in Disaster Care Workers and Emergency Personnel

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Psychological stress is well-known to occur in victims of disasters. Attention to psychological triage and care for victims and families has become routine. More information has come to light in recent years that disaster care workers and even emergency personnel who experience difficult or extremely traumatic cases have difficulty coping with the psychological stress.

This presentation examines several methods of modifying that stressful experience, or treating the emotional stress that ensues, and hopefully to prevent Post-Traumatic Stress syndromes and disorders. Formal Critical Incident Stress Debriefing (CISD) teams are used in many locations when an especially difficult experience for emergency care workers has occurred, or after a disaster. These teams provide venting and debriefing for emergency care workers within peer groups, and add separate sessions for casualties and family if necessary. Other methods that can aid stress in disaster care workers are defusing "stress hardening" and the practice of good physical and emotional health.