

Sakhalin Island.

Both conservative and surgical techniques were used in treatment of children with compression injuries. The most appropriate methods used included skeletal extraction, intrafocci, and closed intramedullary osteosynthesis.

According to our experience, multi-organ functional failure as a manifestation of crush syndrome complicated treatment in 21.6% of the children. In the most difficult cases, the method of extracorporeal blood purification was used in 10.1% of children with the crush syndrome. The mortality in this group was 10.7%.

**Conclusion:** Compression trauma in children is characterized by high incidence of disabilities and high mortality.

**Keywords:** children; compression injuries; crush syndrome; earthquake; fractures; multi-organ failure; orthopedics; purification, blood; techniques, surgical; treatment

#### PL1-4

##### Children in Disaster

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Children in disaster present emergency workers with specific problems. The youngsters are not "mini adults", and cannot be treated as such. Yet, equipment prepared for use at major incidents rarely includes more than a token item or two designed specifically for use with a child. Most medical response teams would be able to deal with a handful of young victims, but very few could manage large numbers of child casualties.

This paper will discuss the history of disaster in Britain to illustrate how often large numbers of young victims can be expected. At Rotherham, in 1841, 64 children were drowned as they celebrated the launching of a ship. A few years later, at Yarmouth in 1845, 79 people, mostly children, died when the newly opened bridge they were standing on collapsed. At a Sunderland theatre in 1883, 183 children were killed in a crush as they rushed to the building's single exit after a magic show. And when a TNT plant exploded in East London in 1917, at least one-third of the 73 fatalities and 1,000 injured were children. In more recent years, we have witnessed the horror of Aberfan, where a slagheap swept down a mountainside, engulfing a school and killing 116 children and 28 adults. Few will have forgotten the horror of Dunblaine, where 17 infant school children and their teacher were shot dead in the school's gymnasium.

This paper will highlight how responders to disaster must expect that a significant proportion of victims will be children, and will examine the special needs of paediatric patients. It will argue for the provision of emergency paediatric packs to be maintained and available at strategic locations. It also will call for the availability of mobile paediatric medical teams. These specialist teams would assist at incidents involving groups of children, particularly those with physical handicaps or learning difficulties, but with minimal injuries, where transport

to an Accident Department would be inappropriate.

**Keywords:** children; disasters; equipment; history; paediatrics; supplies, cache of; teams, mobile

#### PL1-6

##### Earthquake in Armenia — 10 years Afterward

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As the result of the devastating earthquake in Armenia in December 1988, there were more than 3,000 injured children, which comprised 27.2% of all victims. Most of the injured children received their primary help and treatment in different hospitals of Armenia and the former Soviet Union. Later, the most severely injured children underwent orthopedic and rehabilitation treatment, as well as fitting with prostheses in different hospitals of the USA, Germany, France, Israel, and Canada. Long-term follow-up and treatment were needed for patients with limb amputations (57 kids), spinal cord injuries (7 patients), and children with severe limb paralyses after crush-injury (>150 patients).

During past 10 years, all of the injured children recovered psychologically and physically as much as possible. With the help of different international organizations (International Federation of Red Cross and Red Crescent Societies, German and Bavarian Red Cross, MSF, etc.) and the Governments of different countries, many general and children's hospitals, rehabilitation centers, and prosthetic-orthotic workshops were built and equipped in earthquake area. At the same time, many newly founded, local non-governmental organizations (NGOs) continue psychological and social rehabilitation of earthquake victims and children with different types of disabilities.

**Keywords:** Armenia; earthquake, Armenia; children; non-governmental organizations (NGOs); orthotics; orthopedic; primary treatment; prosthetics; rehabilitation; support

#### PL1-7

##### Rehabilitation of Disabled Children Who Suffered During Earthquakes

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Experience from consistent medical care administered to children who suffered severe compression injuries during the earthquakes in Armenia in 1988, Georgia in 1990, and on the island of Sakhalin in 1995, provides evidence of residual pathological changes. Approximately 24% of the hospitalized patients experienced compression trauma during the earthquakes, and injuries of the extremities prevailed in 90% of the cases. There were 2,645 children