

VOLCANIC ERUPTIONS: HEALTH CONSEQUENCES AND PREVENTIVE HEALTH MEASURES—AN OVERVIEW

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The 2010 eruptions in Iceland , and Mount Merapi in Indonesia, caused enormous disruption and opened a new chapter in the history of volcanic eruptions, emerging hazards, and disaster crisis management. A volcanic eruption can be devastating for the local wildlife as well as for the human population. Volcanic eruption represent a different kind of hazard compared with floods, hurricanes, and earthquake. Their onset also may be sudden, but they differ in the danger does not necessarily decline rapidly with time, and actually may increase because of unpredictability of the eruptive behavior and desire of a willing population to believe that the danger has passed and they can resume normal living. Volcanoes and their eruption can result in a wide range of health impacts and kill people in a remarkably large number of ways. At least 500 million people worldwide live within potential exposure range of volcanic activity and possible eruption. The range of adverse health effect is quite broad and extensive. This presentation will provide an overview of the main causes of death and injury caused by a volcanic eruptions and the preventive health measures and public health interventions to be adopted during a volcanoes eruption. Information on the causes of death and injury in eruptions is sparse, but the available literature is summarized in this report for the benefit of volcanologists and emergency planners. Healthcare workers and physicians responding to the volcanic events might find themselves involved in scenarios as varied as disaster planning, epidemiological surveillance, treating the injured, or advising on the health hazard associated with long range transport of volcanic emissions. Medical treatment only has a small role during severe volcanic eruptions. The preventive measurement are paramount if injuries and loss of life are to be reduced.