

Space Weather Effects on Human Physiological State

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It has long been known that solar extreme events and induced geomagnetic disturbances can have adverse effects on human health. We study the possible influence of solar activity changes and related geomagnetic activity variations on the human cardio-vascular state: arterial blood pressure, heart rate and acute myocardial infarction morbidity. As different solar drivers have different effect on various terrestrial processes, from geomagnetic storms, stratospheric and tropospheric dynamics, to atmospheric centers of action and atmospheric circulation and seismic activity, here we study the effects on the human cardio-vascular state of coronal mass ejections (CMEs), solar flares not related to CMEs, solar proton events, high speed solar wind streams, and galactic cosmic rays.

Keywords: space weather; human health.