

It has been shown that weather influences human health; however, little attention has been paid to the role of sudden changes of weather characteristics. In this work we developed an algorithm for identification of sudden changes of air pressure and temperature over the Czech Republic. Events were selected from the data covering 1986-2005 and were compared with the database of daily all-cause (total) mortality and mortality due to cardiovascular diseases, both for the whole population and for people aged 70 years or more. Increase of mortality was found after significant temperature increase or pressure drop both in summer and winter months. Decrease of mortality occurred after significant pressure increase or temperature drop in summer. Mortality variations are usually more pronounced for population aged 70 years or more, and sudden temperature changes affect mortality on cardiovascular diseases more strongly. Changes in mortality were found after passages of cold fronts in summer, too.