

Extension of 2023 World Hypertension Day Activities to Blood Pressure Measurement at High Altitude Campaign

On 8 and 9 July 2023, as done in the last 7 years, in 50 shelters located on the Italian Mountains (either on the Alps and on the Apennine chain of mountains all across the Italian Country), an awareness-raising campaign on arterial hypertension and on the blood pressure and cardiovascular effects of hiking or climbing at moderate to high altitudes was organised. This initiative is promoted yearly, in association with the World Hypertension Day activities organized by WHL Volunteers from Italian Society of Hypertension, Italian Alpine Club, Italian Society of Mountain Medicine, Istituto Auxologico Italiano of Milan and University of Milan-Bicocca offered educational information on cardiovascular risk associated with blood pressure together with blood pressure, heart rate and pulse oximetry measurements to all individuals reaching mountain shelters located at altitudes of 2,000 metres or higher. This was done in July rather than on May 17 because it is in summer that most people hike or climb in mountain regions.

This awareness campaign is in line with other WHL activities aimed at facing the high prevalence of arterial hypertension, the main risk factor for cardiovascular disease and death, worldwide. To prevent the occurrence of often fatal or disabling cardiac and cerebral events, more attention must therefore be paid to the behaviour of blood pressure in various conditions of our daily life, including ascent to mountain regions. Studies by Prof. Gianfranco Parati (President elect WHL and Scientific Director of Istituto Auxologico Italiano/University of Milan-Bicocca) have shown how blood pressure rises significantly during exposure to high altitudes (above 2000-2500 metres). Some blood pressure change can be seen even when climbing to moderate altitudes (around 1800-2000 metres). This occurs in normal individuals and also in patients already suffering from high blood pressure, raising the question of how to keep blood pressure under control even when climbing at high altitude, to ensure a safe and risk-free approach to the mountains for the cardiovascular system.

The 'Blood Pressure in the Mountains' awareness and prevention campaign thus aimed at promoting better awareness of the reactions of the cardiovascular system, and in particular of blood pressure, under acute exposure to hypobaric hypoxia at moderate and high altitudes among the many people with or without cardiovascular problems who, especially in summer, hike or climb mountains. This initiative is relevant in a global perspective, given the very high number of people ascending to high altitudes daily, for either leisure or work, in the world.

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