

Cardiovascular diseases (myocardial infarction, ischemic heart disease, stroke, hypertension, and others) rank among the most serious problems of modern global healthcare. Their consequences are responsible for nearly half of all deaths (Mackay & Mensah, WHO, 2005). The Czech Republic is no exception, being ranked by the World Health Organization among the leading countries in mortality from heart and vascular diseases (Guidelines Committee, 1999).

In both industrially developed and developing countries, arterial hypertension (HT), together with certain metabolic disorders collectively referred to as the metabolic syndrome, are becoming widespread risk factors for the development of cardiovascular diseases (Khor, 2001; Vorster, 2002). This is largely due to the significant increase in life expectancy, during which other negative factors such as obesity, physical inactivity, unhealthy diet (Singh et al., 2000; Yusuf et al., 2001), and a deteriorating environment may exert a stronger influence.

According to the European Society of Hypertension and the European Society of Cardiology, hypertension is defined as the repeated measurement of resting blood pressure (BP) above 139/89 mmHg (De Backer et al., 2003). This arbitrary threshold for systolic and diastolic blood pressure was determined based on findings that from these values onward, the number of organ complications attributed to arterial hypertension increases sharply (Horký, 2001).

In approximately 90% of hypertension cases, the etiology is unclear, and this is referred to as primary (essential) hypertension. The occurrence of secondary hypertension is relatively rare (< 10%). It arises as a consequence of a congenital or acquired clearly defined disease, which in most cases can be treated causally.