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Overview of hypertension in adults

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Overview of hypertension in adults

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INTRODUCTION — The treatment of hypertension is the most common reason for office visits of non-pregnant adults to physicians in the United States and for use of prescription drugs [1]. Analysis of NHANES data from 1999-2000 and United States Census bureau information results in an approximately 29 to 31 percent incidence of hypertension in the 18 year and older population of the United States [2,3]. This translates into 58 to 65 million hypertensives in the adult population in the United States, which is substantially higher than the 43.2 million estimate derived from the 1988-1991 NHANES-III survey [3,4].

The number of patients with hypertension is likely to grow as the population ages, since either isolated systolic hypertension or combined systolic and diastolic hypertension occurs in over one-half of persons older than 65 years (graph 1) [5]. The rising incidence of obesity will also increase the number of hypertensive individuals [5]. (See "Treatment of hypertension in the elderly, particularly isolated systolic hypertension".)

Despite the prevalence of hypertension and its associated complications, control of the disease is far from adequate [6-8]. Data from NHANES show that only 34 percent of persons with hypertension have their blood pressure under control, defined as a level below 140/90 mmHg (table 1) [7]. Slightly higher rates of control were reported in a regional population study (approximately 45 and 55 percent of men and women, respectively, have controlled hypertension) [8].

There are numerous potential reasons for low rates of blood pressure control, including poor access to health care and medications, and lack of adherence with long-term therapy for a condition that is usually asymptomatic [9]. The latter may be particularly true when the therapy may interfere with the patient's quality of life and when its immediate benefits may not be obvious to the patient. Thus, hypertension will likely remain the most common risk factor for heart attack and stroke [10].

The definition, complications, diagnosis, evaluation, and management of hypertension are reviewed here. Detailed discussions of all of these issues are found separately. (See appropriate topic reviews.)

DEFINITIONS — The following definitions were suggested in 2003 by the seventh report of the Joint National Committee (JNC 7) based upon the average of two or more properly measured readings at each of two or more visits after an initial screen [7]:

- Normal blood pressure: systolic <120 mmHg and diastolic <80 mmHg
- Prehypertension: systolic 120-139 mmHg or diastolic 80-89 mmHg
- Hypertension:
 - Stage 1: systolic 140-159 mmHg or diastolic 90-99 mmHg
 - Stage 2: systolic ≥160 or diastolic ≥100 mmHg

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