

# What lifestyle changes should we recommend for the patient with newly diagnosed hypertension?

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## EVIDENCE-BASED ANSWER

**H**ypertensive patients should reduce sodium intake (strength of recommendation [SOR]: A). The Dietary Approaches to Stop Hypertension diet (DASH diet) – with salt restriction and increased fruit, vegetable, calcium, and potassium intake – reduces blood pressure and should be recommended (SOR: A).

Aerobic exercise is effective in the general, as well as elderly, populations for reducing blood pressure (SOR: A). Patients should be encouraged to reduce alcohol consumption (SOR: A). Evidence that weight loss is significantly associated with blood pressure reduction is inconclusive (SOR: C). Smoking cessation should be encouraged for all hypertensive patients for prevention of cardiovascular disease (SOR: A). □

## EVIDENCE SUMMARY

Healthy lifestyles are an important part of both prevention and management of hypertension. These changes include maintenance of normal body weight, regular aerobic exercise, dietary salt reduction, alcohol consumption reduction, and consumption of diets rich in potassium, fruits, and vegetables. These recommendations have been reviewed in recent meta-analyses (TABLE).

Lifestyle changes that have not shown any significant effect on blood pressure or that are still under review include dietary omega-3 fatty acid supplementation and antioxidant supplementation. (10) □

## RECOMMENDATIONS FROM OTHERS

The National High Blood Pressure Education Program recommends the following for primary prevention of hypertension (11):

- Maintain normal body weight for adults
- Reduce dietary sodium intake to no more than 100 mmol/d
- Engage in regular aerobic physical activity
- Limit alcohol consumption to 30 mL ethanol per day for men, and 15 mL ethanol per day for women or lighter persons
- Maintain adequate intake of dietary potassium (>90 mmol/d)
- Consume a diet rich in fruits, vegetables, and low-fat dairy, with reduced content of saturated and total fat.

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure agrees with the recommendations in the TABLE. (12) □

## CLINICAL COMMENTARY

**When advising patients to make lifestyle changes, be participatory, personalized, practical, and persistent**

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*Lifestyle modifications can prevent and lessen hypertension, but persuading patients to make lasting changes in their long-held eating and activity patterns is challenging. When advising patients to make meaningful lifestyle changes, remember these 4 “Ps”: Participatory, Personalized, Practical, and Persistent. First, engage patients in a conversation about their lifestyle habits and partner with them to develop specific, personalized strategies to make improvements. For example, target significant sources of sodium in the specific foods they eat and find practical opportunities for physical activity in the context of their own schedule and circumstances.*

*Most importantly, persist in your advice by revisiting lifestyle recommendations and the patients' progress at each visit, and modify as needed. Often, once medications are prescribed, patients disregard the lifestyle changes, and may need repeated encouragement to adopt regular, healthful habits.* □

Table. Summary of recommendations

SOR, strength of recommendation; SBP, systolic blood pressure; CI, confidence interval; RR, relative risk; RCT, randomized controlled trial.

INTERVENTION	OUTCOME	STUDY DETAILS	SOR
<b>Reduction of dietary sodium intake</b>	Lowers SBP by 4.97 mm Hg (95% CI, -5.76 to -4.18)	2004 Cochrane review (1,2) (17 trials; 734 participants)	A
<b>DASH diet</b>	Lowers SBP by 4.3 mm Hg ( $P < .001$ )	Multicenter randomized control trial (810 adults) (2,3)	A
<b>Regular aerobic exercise</b>	Lowers SBP by 4.0 mm Hg (95% CI, -5.32 to -2.75)	Meta-analysis of 54 RCTs (2419 participants) (4,5)	A
<b>Reduced alcohol consumption</b>	Lowers SBP by 3.31 mm Hg (95% CI, -4.10 to -2.52)	Meta-analysis of 15 RCTs (2234 participants) (6)	A
<b>Smoking cessation</b>	36% relative risk reduction in mortality (RR=0.64; 95% CI, 0.58 to 0.71)	2004 Cochrane review (20 prospective cohort studies) (7)	A
<b>Weight loss</b>	3%–9% body weight loss may be associated with decrease in blood pressure by 3 mm Hg; not statistically significant (95% CI, -6.8 to 0.7)	2000 Cochrane review of 18 trials (though 1997; 361 participants in the primary 6 studies) (8,9)	C

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