

Lifestyle Changes for Managing Hypertension

Author: Dr Kevin Fernando, Portfolio GP, East Lothian; Content Advisor, Medscape Global and UK. Email: kfernando@webmd.net

Lifestyle Change	Recommendations	Approx. Effect on Systolic BP (mmHg)	Approx. Effect on Diastolic BP (mmHg)
Alcohol Consumption ^[1]	Current UK guidance ^[2] advises limiting alcohol intake to 14 units/week for women and men	−4.0	−2.5
Caffeine, Tea, and Energy Drinks ^[3]	<p>Coffee intake is not associated with a higher risk of hypertension in the general population; increased coffee consumption may be associated with lower risk of hypertension</p> <p>The association between drinking tea and CVD is unclear; mechanistic trials have suggested benefits for BP lowering</p> <p>Energy drinks containing high concentrations of taurine and caffeine increase BP and may lead to cardiovascular complications in young adults</p>	Unclear	
DASH (Dietary Approaches to Stop Hypertension) ^[4]	An evidence-based eating plan (see the <i>Useful Resources for Patients</i> section) rich in fruits, vegetables, and low-fat dairy products, with reduced salt and saturated/trans fat content	−11.0	−5.5
Maintaining a Healthy Weight ^[3,5]	Weight loss of 5 kg in adults living with overweight or obesity	−4.4 (for weight loss of 5 kg)	−3.6 (for weight loss of 5 kg)
Physical Activity ^[3,6–9]	<p>In a systematic review and meta-analysis, aerobic exercise was suggested over alternative forms of exercise resistance training as the first-line exercise therapy for reducing BP^[3,6]</p> <p>Adults should aim to:^[3,7]</p> <ul style="list-style-type: none"> engage in strengthening activities that work all the major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms) on ≥2 days per week engage in ≥150 minutes of moderate-intensity activity per week or 75 minutes of vigorous-intensity activity per week spread exercise evenly over 4–5 days per week, or every day reduce time spent sitting or lying down, and break up long periods of inactivity 	<p>−7.5</p> <p>A recent network meta-analysis suggested the SBP-lowering effect of exercise among hypertensive populations appears similar to that of commonly used antihypertensive medications^[9]</p>	−4.5
Potassium Intake	<p>Optimum dietary potassium intake can lower BP and may be linked to reduced CVD risk^[3]</p> <p>Increase dietary potassium intake (e.g. tomato juice, bananas, potatoes, spinach, salmon, eggs; see the <i>Useful Resources for Patients</i> section) to 3.5–5.0 g daily^[10]</p> <p>Be aware of individuals at higher risk of hyperkalaemia, for whom this recommendation should be individualised: those with advanced CKD, CHF, diabetes, and resistant hypertension</p> <ul style="list-style-type: none"> guidance on CKD recommends restricting dietary potassium intake to <2.4 g/day in advanced CKD^[3] 	−3.5	−2.0
Salt Intake	<p>Long-term follow-up salt-reduction trials have illustrated that reducing salt by 2.5 g/day is associated with ≈20% reduction in CVD events^[3,11]</p> <p>Adults should eat <6 g of salt, equivalent to 2.4 g sodium per day^[12] (see <i>Useful Resources for Patients</i>, below); 1 tsp≈5 g salt</p> <p>Salt substitutes such as LoSalt contain potassium instead of sodium, so may not be suitable for all. See the above recommendation regarding potassium intake</p> <p>Soluble, dispersible, and effervescent preparations of analgesics have high sodium content, and studies have found a link between use of these sodium-containing medicines and increased CVD risk;^[13] taking eight soluble paracetamol tablets exceeds the recommended sodium intake of 6 g daily</p> <p>Soluble preparations should be avoided unless the person has genuine swallowing difficulties</p>	−5.4	−2.8
Smoking Cessation (and E-cigarettes)	<p>Stopping smoking is one of the most effective interventions to prevent major CVD events^[3,14]</p> <p>The BP effect of e-cigarettes is unclear, and data are sparse; growing evidence suggests that e-cigarettes can increase BP^[3]</p>	−5.0	−3.1

BIHS=British and Irish Hypertension Society; BJGP=British Journal of General Practice; BP=blood pressure; CHF=chronic heart failure; CKD=chronic kidney disease; CVD=cardiovascular disease; DASH=dietary approaches to stop hypertension; ESC=European Society of Cardiology; SBP=systolic blood pressure.

Notes

- The [2024 ESC guideline on hypertension](#) offers practical information and guidance on lifestyle changes for managing elevated BP and hypertension
- The effects of implementing these modifications are of course individual, and combinations of two (or more) lifestyle modifications are synergistic
- For comparison, the average SBP reduction from one antihypertensive drug is **12.5–15.5 mmHg**^[15] and around two-thirds of individuals with hypertension cannot be controlled on one drug and will require two or more antihypertensive agents from different drug classes^[16]
- [Blood Pressure UK](#) and the [BIHS](#) provide information for supporting those with—and healthcare professionals managing patients with—hypertension, including home BP monitoring resources from the BIHS
- A [useful clinical practice article](#) was published recently in the BJGP, with a focus on measuring BP in primary care.

Useful Resources for Patients

- [NHS Live Well: Alcohol support](#)
- [NHS website: Hypertension prevention](#)
- [US National Heart, Lung, and Blood Institute: DASH eating plan](#)
- [NHS Live Well: Healthy weight](#)
- [NHS Live Well: Exercise](#)
- [Blood Pressure UK: Potassium and your blood pressure](#)
- [Blood Pressure UK: Salt and your blood pressure.](#)