

## Hypertension Apr-Oct 2021

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### Articles

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#### **Effects of diaphragmatic deep breathing exercises on prehypertensive or hypertensive adults: a literature review.**

Yau KK-Y. *Complementary Therapies in Clinical Practice* 2021;43:101315.

Conclusion: Findings revealed that voluntary diaphragmatic deep breathing resulted in decreased of systolic and diastolic blood pressures, reduced heart rate, a relaxing effect, and reduced anxiety in hypertensive or prehypertensive individuals. Voluntary diaphragmatic breathing at <10 or 6 breaths per minute for 10 min twice a day for 4 weeks was effective in producing positive outcomes.

<https://www.sciencedirect.com/science/article/abs/pii/S1744388121000141?via%3Dihub=>

#### **What type of physical exercise should be recommended for improving arterial stiffness on adult population? A network meta-analysis.**

Saz-Lara A. *European Journal of Cardiovascular Nursing* 2021;;<https://doi.org/10.1093/eurjcn/zvab022>.

Conclusion: Our findings showed that aerobic exercise, combined exercise, interval training, and mind–body exercises were the most effective exercise modalities for reducing arterial stiffness, assuming an important role in the prevention of cardiovascular diseases.

<https://academic.oup.com/eurjcn/article-abstract/20/7/696/6219377>

#### **Antihypertensive drug use and psoriasis: A systematic review, meta- and network meta-analysis.**

Song G. *British Journal of Clinical Pharmacology* 2021;;[doi.org/10.1111/bcp.15060](https://doi.org/10.1111/bcp.15060).

This study confirmed the associations between antihypertensive drugs and psoriasis; ACE inhibitors, BBs, CCBs and thiazide diuretics increased the risk of psoriasis. Therefore, antihypertensive drug users should be carefully monitored for psoriasis.

<https://bpspubs.onlinelibrary.wiley.com/doi/full/10.1111/bcp.15060>

#### **Are interventions to improve cardiovascular disease risk factors in premenopausal women effective? A systematic review and meta-analysis.**

Gao L. *BMJ Open* 2021;11(7):e042103.

Review (14 RCTs; n=49 to 39 876) found vitamin E and diet interventions were not effective in lowering CVD risk factors whereas lifestyle modification (diet and/or physical activity) were effective in improving a series of biomarkers including diastolic BP and fasting blood glucose.

<https://bmjopen.bmj.com/content/11/7/e042103>

### **Calcium channel blockers versus other classes of drugs for hypertension.**

Zhu J. *Cochrane Database of Systematic Reviews* 2021;10:CD003654.

BACKGROUND: While calcium channel blockers (CCBs) are often recommended as a first-line drug to treat hypertension, the effect of CCBs on the prevention of cardiovascular events, as compared with other antihypertensive drug classes, is still debated.

OBJECTIVES: To determine whether CCBs used as first-line therapy for hypertension are different from other classes of antihypertensive drugs in reducing the incidence of major adverse cardiovascular events.

<https://pubmed.ncbi.nlm.nih.gov/20687074/>

### **COVID-19 and peripheral arterial complications in people with diabetes and hypertension: A systematic review.**

Rastogi A. *Diabetes & Metabolic Syndrome* 2021;15(5):102204 .

COVID-19 patients with diabetes or hypertension are susceptible for lower limb complications and require therapeutic anti-coagulation.

<https://pubmed.ncbi.nlm.nih.gov/34303918/>

### **Exercise is an effective intervention for reducing blood pressure in adults with hypertension and diabetes: an opportunity for nurses.**

Armstrong N. *Evidence-Based Nursing* 2021;24(4):131.

Nurses should encourage people living with hypertension and type 2 diabetes to engage in aerobic exercise to aid in the management of hypertension.

Future research should address sustainability and adherence to exercise interventions over the long term and assess non-surrogate end points (eg, reduction in mortality vs reduction in blood pressure).

<https://pubmed.ncbi.nlm.nih.gov/33203657/>

### **Pharmacological blood pressure lowering for primary and secondary prevention of cardiovascular disease across different levels of blood pressure: an individual participant-level data meta-analysis.**

The Blood Pressure Lowering Treatment Trialists' Collaboration. *The Lancet* 2021;397(10285):P1625-1636.

In this large-scale analysis of randomised trials, a 5 mm Hg reduction of systolic blood pressure reduced the risk of major cardiovascular events by about 10%, irrespective of previous diagnoses of cardiovascular disease, and even at normal or high-normal blood pressure values.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00590-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00590-0/fulltext)

### **Pharmacological treatment of hypertension in people without prior cerebrovascular disease for the prevention of cognitive impairment and dementia.**

Cunningham EL. *Cochrane Database of Systematic Reviews* 2021;5:CD004034.

BACKGROUND: Hypertension is a risk factor for dementia. Observational studies suggest antihypertensive treatment is associated with lower incidences of cognitive impairment and dementia. There is already clear evidence to support the treatment of hypertension after stroke.

OBJECTIVES: To assess whether pharmacological treatment of hypertension can prevent cognitive impairment or dementia in people who have no history of cerebrovascular disease.

<https://pubmed.ncbi.nlm.nih.gov/34028812/>

### **Pharmacotherapy for hypertension-induced left ventricular hypertrophy.**

Leache L. *Cochrane Database of Systematic Reviews* 2021;10:CD012039.

OBJECTIVES: To assess the effect of antihypertensive pharmacotherapy compared to placebo or no treatment on morbidity and mortality of adults with hypertension-induced LVH.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6746669/>

### **Comparative Effectiveness of Aspirin Dosing in Cardiovascular Disease.**

*The New England journal of medicine* 2021;:-.

In this pragmatic trial involving patients with established cardiovascular disease, there was substantial dose switching to 81 mg of daily aspirin and no significant differences in cardiovascular events or major bleeding between patients assigned to 81 mg and those assigned to 325 mg of aspirin daily.

<https://pubmed.ncbi.nlm.nih.gov/33999548/>

## **Guidelines**

### **Perioperative Care for People Living with Frailty Undergoing Elective and Emergency Surgery.**

Centre for Perioperative Care & British Geriatrics Society; 2021.

The scope of this guideline covers all aspects of perioperative care relevant to adults living with frailty undergoing elective and emergency surgery. It is written for healthcare professionals involved in delivering care throughout the pathway, as well as for patients and their carers, managers and commissioners.

<https://www.cpoc.org.uk/guidelines-resources-guidelines/perioperative-care-people-living-frailty>

## **Reports**

### **Community based approaches to addressing high blood pressure with black African and Caribbean men.**

**NICE Shared Learning Database; 2021.**

This community-centred pilot programme from the Race Equality Foundation implemented NICE QS167 (Promoting health and preventing premature mortality in minority ethnic groups) by offering blood pressure testing in two areas and raising awareness of high blood pressure in black African and Caribbean males.

<https://www.nice.org.uk/sharedlearning/community-based-approaches-to-addressing-high-blood-pressure-with-black-african-and-caribbean-men>

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