The effects of slow loaded breathing training on exercise blood pressure in isolated systolic hypertension
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Setting the scene:
Slow loaded breathing training has been shown to reduce resting blood pressure (BP) in isolated systolic hypertension (ISH), but it is not known whether this also reduces their exaggerated BP responses to exercise.

What did they do?
Twenty ISH patients were randomized with one group undertaking 8-weeks training with slow loaded breathing (SLB: 25% maximum inspiratory pressure, 6 breaths per minute, 60 breaths every day) or deep breathing control (CON). The study had three phases: a 2-week run-in followed by an 8-week intervention of breathing training for the SLB group, which was followed by a further 8 weeks follow-up with no training. Outcome measures were home BP and heart rate (HR) with laboratory measures of BP and HR responses to static handgrip and dynamic arm cranking exercise. There was excellent compliance with over 90% adherence to both the training programme and recording home BP and HR. The reduction in exercise BP, in both types of exercise, was partly due to a reduction in resting BP and to a smaller increase above resting. Systolic and pulse pressures remained below run-in values 8 weeks after the end of SLB training, and BP response to handgrip exercise remained below run-in values at 4 weeks after SLB training.

Takeaway message:
SLB not only reduces resting BP in ISH but also the responses to both static and dynamic exercise, potentially reducing the negative aspect of exercise for cardiovascular health.