

## Effectiveness of mindfulness based stress reduction and mindfulness based cognitive therapy in vascular disease

*“Mindfulness is a way of learning to relate directly to whatever is happening in your life, a way of taking charge of your life, a way of doing something for yourself that no one else can do for you — consciously and systematically working with your own stress, pain, illness, and the challenges and demands of everyday life.”*

Centre for Mindfulness in Medicine

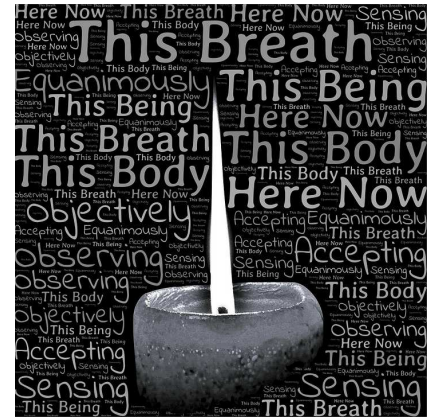
### What did we find?

- Mindfulness based therapy for people with, or at risk of, vascular disease (such as diabetes or hypertension) is associated with reductions in both self-reported depression and anxiety.
- Mindfulness therapy for people with, or at risk of, vascular disease is also associated with reductions in perceived stress.
- There is inconsistent evidence for the effect of mindfulness therapy on physical outcomes: some studies finding reductions in blood pressure and improved blood sugar control, while others not.
- The majority of studies were short term and there were concerns about study design and quality.

### Why did we do this review?

Vascular disease is a leading cause of morbidity and mortality. Both the disease itself and its associated clinical events, such as heart attack and stroke, are significant and distressing life events. Depression, anxiety, and psychological distress, in turn, are independent risk factors for vascular disease morbidity and mortality .

There is a recognised need to equip patients with vascular disease with skills and coping strategies to help reduce or manage perceived psychological stress. Mindfulness-based ap-



proaches have been advocated as one promising psychosocial approach. Two of the main mindfulness-based approaches are Mindfulness-Based Stress Reduction (MBSR), and Mindfulness-Based Cognitive Therapy (MBCT).

The purpose of this systematic review was to establish whether MBSR and MBCT are effective in the management of both depressive and physical symptoms in individuals with vascular disease and those at high risk of vascular disease.

### How did we do this review?

The research was a systematic review. This brings together all existing research on a particular question. To find studies that might help us to answer the question we searched the relevant academic literature. In particular, for this review, we looked for randomised controlled trials. Eight trials (7 MBSR and 1 MBCT) were found, involving populations with hypertension, heart disease, diabetes and post-stroke.

All studies involved group based therapy, meeting once a week for approximately two hours, with the addition of daily homework for 30-45 minutes for six days per week. Most studies involved eight weeks of therapy.

Mindfulness therapy was associated with reductions in depression, anxiety and psychosocial stress. Mindfulness therapy was also associated with improvements in reported quality of life. Mindfulness therapy appeared to be effective despite the relatively low levels of baseline depression, anxiety and stress. The evidence for therapy effects on physical outcomes such as changes in blood pressure, and markers in the blood of diabetes control were mixed.

### Quality of the research and cautionary notes

While the evidence in this review came from randomised controlled trials, most of the studies used a waiting list as the control (the comparator). This is recognised as not being ideal as there is an expectancy for this group to assume they will feel better when they start treatment. Most studies were of short duration, so it is not known whether the benefits would be seen in the long term.

### What next?

Future research studies in this area need to assess whether the short term benefits are maintained in the long term. Also it is important to try and understand how mindfulness therapy is working.



For example, does the therapy actually make people more mindful, or does the therapy work by some other means?

### Contact details and further information about the published paper:

The PenCLAHRC EST is part of Evidence Synthesis and Modelling for Health Improvement (ESMI), at the University of Exeter Medical School. Further information about this research is available on the University of Exeter Medical School website:

<http://medicine.exeter.ac.uk/esmi/workstreams/>

The full version of the systematic review of these findings are published in the Journal of Psychosomatic Research. You can access the paper here:

<http://tiny.cc/jwacgy>

If you would like copies, please email the evidence synthesis team on:

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