

Study finds 20 minutes of mindful breathing can rapidly reduce intensity of cancer pain

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Twenty minutes of mindful breathing, which focuses a person's attention on their breath, can rapidly reduce the intensity and unpleasantness of cancer pain and relieve the associated anxiety, suggest the findings of a

small comparative study, published online in the journal *BMJ Supportive & Palliative Care*.

Mindful breathing complements traditional pain relief and broadens the repertoire of options available for cancer patients, say the researchers.

Moderate to [severe pain](#) affects an estimated 30–40% of patients with cancer worldwide, as a result of the tumor compressing or invading surrounding tissues, neuropathic mechanisms, and the side effects of treatment, say the researchers.

Despite advances in [pain management](#), and an evolving range of drugs and nerve blocks, inadequate pain control remains a substantial challenge for clinicians, they add.

Among the array of complementary treatments, such as [cognitive behavioral therapy](#), massage, acupuncture, and exercise, the value of mindfulness-based interventions is increasingly being recognized, say the researchers.

But the research to date on the effectiveness of mindfulness for pain relief has primarily focused on programs lasting several weeks or just 5–10 minutes, or on people who don't have cancer.

In light of previously published research indicating that periods longer than 10 minutes might effectively relieve pain, the researchers wanted to find out if a single session of mindfulness breathing lasting 20 minutes might do the same for patients with cancer.

To find out, they randomly assigned 40 inpatients (out of 259 approached) with different types of cancer, and a pain score of 4 or more out of 10, indicating moderate to severe pain, to one of two groups.

One group (21 people) did a mindful breathing session, guided by a doctor who had been trained in mindfulness techniques. The session involved a brief explanation of mindfulness concepts and practices, followed by 20 minutes of mindful breathing.

The session consisted of four steps, each lasting five minutes: identifying the in-breath and out-breath; following the entire length of the breath; bringing the mind back to the body; and relaxing the body, starting with the head all the way down to the feet.

The other group (19 people) received a 20-minute supportive listening session led by a doctor, during which they were asked about their experiences of illness using semi-structured questions.

Before and after each intervention, the intensity and unpleasantness of every patient's pain was measured using the validated Numeric Rating Scale (0–10), while the Hospital Anxiety and Depression Scale (HADS), consisting of 14 items rated on a 4-point scale, was used to assess their mood.

Background information and pertinent clinical data, such as cancer types and stages, and use of [pain relief](#), including morphine, were retrieved from the hospital's medical records.

The patients' average age was 63, and although various cancer types were represented among them, one in three had [bowel cancer](#); 29 had stage III or IV disease. Nearly two-thirds (65%) were using opioids to control their pain.

The results showed that the mindful breathing group experienced a much greater (and significant) reduction in pain intensity and pain unpleasantness than the comparison group. They also experienced a much greater reduction in HADS score.

The researchers acknowledge the relatively small size of the study, and the fact that it was carried out at one medical center only. The nature of pain intensity/unpleasantness and psychological outcomes were also subjectively assessed.

But patients with cancer often face practical constraints, so brief mindfulness interventions that can quickly reduce pain and complement traditional pharmacological approaches are worth exploring, they suggest.

"Additionally, the 100% response rate and the absence of adverse events underscore the feasibility and safety of the 20-minute mindful [breathing](#) intervention. The intervention can be quickly learnt and applied with beneficial effect," they add.

"The findings suggest that this brief intervention holds promise in reducing pain intensity and unpleasantness, as well as alleviating anxiety among patients with cancer. While further research is needed to consolidate these findings, the study contributes valuable insights into a feasible and accessible non-pharmacological approach to enhance pain management in cancer care," they conclude.

More information: Mindful breathing for cancer pain: efficacy of a single 20-minute session – a randomised controlled study, *BMJ Supportive & Palliative Care* (2024). [DOI: 10.1136/spcare-2023-004762](https://doi.org/10.1136/spcare-2023-004762)

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