

Exercise link to better cancer outcomes

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New Delhi: Planned and regular exercise may help people with cancer live longer with more time free of the disease, medical researchers said on Tuesday in a review combining evidence from multiple studies.

The review has found that cancer patients who added exercise into their post-treatment care were 23 per cent less likely to die and 17 per cent less likely to face a recurrence than those who did not exercise.

Global cancer statistics suggest that recurrence occurs in 20 per cent to 40 per cent of patients after surgery and chemotherapy intended to eliminate the cancer.

While dozens of earlier studies have evaluated structured exercise after treatment, its role in treatment remains under debate because studies have produced mixed results amid differences across the patients studied and exercise programmes used.

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"We now have direct and quantified evidence that exercise shows benefit on the endpoints that oncologists actually use to judge a treatment, not just on symptoms," Chih-Chen Tzang, a researcher at the School of Medicine, National Taiwan University, and the review's lead author, told *The Telegraph*. "Earlier evidence in this field was largely focused on quality of life, not survival."

Tzang and his colleagues pooled the evidence from 21 clinical trials conducted in Asia, Australia, Europe and North America involving 8,449 patients. Around two-thirds

of the trial participants had breast cancer and 11 per cent had colorectal cancer.

Their analysis, published on Tuesday in the *British Journal of Sports Medicine*, has shown that the protective association was stronger among participants who completed at least 70 per cent of the prescribed exercise programme.

The survival benefits were evident with aerobic exercise and combinations of aerobic exercise and resistance training, while resistance training alone did not show a significant protective effect.

"Adherence (to the exercise regimen) looked like a dose," Tzang said. "Survival esti-

mates were strongest among patients who completed most of their prescribed sessions, which suggests that how exercise is delivered and practised may matter as much as whether it is recommended."

Although patients with breast cancer and colorectal cancer dominated the clinical trials reviewed, the researchers found similar exercise-linked survival benefits in patients with cancers of the lung, oesophagus, ovaries, pancreas, and lymphoma also enrolled in the trials.

The possible biological mechanisms proposed earlier to account for the effects of exercise are "systemic rather than organ-specific", Tzang said.

Exercise may boost the body's immune system's response to cancer and improve blood flow within tumours, potentially helping treatment work better. It may also increase uptake of glucose by the muscles, leaving less available to fuel cancer cells.

K.S. Gopinath, a surgical oncologist in Bengaluru and the president-elect of the Indian Society of Oncology, who was not associated with the new review, said its findings were not surprising. "The potential benefit of exercise post-treatment is a known entity," Gopinath told this newspaper.

"We may not have had rigorous clinical trials in India to

evaluate the impact of exercise on survival, but anecdotal experience suggests it helps," Gopinath said. "And we prescribe an exercise regimen to all patients after treatment."

Tzang said exercise is a low-cost intervention with few side-effects, yet the studies suggest it may improve survival by an amount that would attract serious attention if it were a new drug.

But most people in the trials were fitter, better educated and better able to afford care than the average patient. Unless supervised exercise programmes are made widely available, he said, the benefits are likely to go mainly to people who are better off.