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Exercise as part of cancer treatment

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In a first, a national cancer organization has issued formal guidelines recommending exercise as part of cancer treatment, for all cancer patients. The Clinical Oncology Society of Australia (COSA) is very clear on the directive. Its recommendations are:

- Exercise should be embedded as part of standard practice in cancer care and viewed as an adjunct therapy that helps counteract the adverse effects of cancer and its treatment.
- All members of the multi-disciplinary cancer team should promote physical activity and help their patients adhere to exercise guidelines.
- Best practice cancer care should include referral to an accredited exercise physiologist and/or physical therapist with experience in cancer care.

Lead author of the statement, clinical researcher and exercise physiologist, and chair of the COSA Exercise Cancer guidelines committee, Dr. Prue Cormie is also very clear in her statement to the press:

"If we could turn the benefits of exercise into a pill it would be demanded by patients, prescribed by every cancer specialist and subsidized by government. It would be seen as a major breakthrough in cancer treatment."

The evidence on benefits of exercise during cancer treatment

On the research supporting the bold guidelines, Dr. Cormie states: "the level of evidence is really indisputable and withholding exercise from patients is probably harmful."

She is correct. There are hundreds of studies showing real, tangible benefits of exercise for patients with a variety of different cancers and at different stages.

Exercise specifically as an additional therapy for patients undergoing cancer treatment has been well-studied and associated with many benefits. In one analysis of 61 clinical trials of women with all stages of breast cancer, those who underwent an exercise program during treatment had significantly improved quality of life, fitness, energy, and strength, as well as significantly less anxiety, depression, and lower body mass index and waist circumference compared with the regular care groups. In another major analysis of 28 trials involving over 1,000 participants with advanced cancers (including leukemia, lymphoma, multiple myeloma, lung, breast, GI, and prostate), an exercise program during treatment was associated with significantly improved physical function, energy levels, weight/BMI, psychosocial function, sleep quality, and overall quality of life.

COSA's prescription for exercise during cancer treatment

The COSA statement advises that people with cancer should:

Avoid inactivity and be as physically active as they are able, with the goal of:

- at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic exercise (e.g. walking, jogging, cycling, swimming) each week; and
- two to three resistance exercise (e.g., lifting weights) sessions each week involving moderate- to vigorous-intensity exercises targeting the major muscle groups.

Their care team should:

- tailor exercise recommendations to the individual's abilities, anticipated disease trajectory, and health status
- consult with accredited exercise physiologists and physical therapists as the most appropriate health professionals to prescribe and deliver exercise programs to people with cancer
- promote these recommendations throughout treatment;

Finding a way to include exercise as part of cancer treatment

More research will help us understand exactly how much exercise is optimal for people with specific cancers. For now, COSA's exercise prescription translates to about 21 minutes per day of exercise, plus a couple of muscle-building sessions per week.

I asked experienced nurse practitioner and cancer survivor Eileen Wyner what she thought about these guidelines, and she was unequivocal in her enthusiasm: "I think that is a terrific idea." Though she is four years in remission from lymphoma, she remembers her chemotherapy treatments well. "I was in very good physical shape when I got sick, but I got weak fast. I would walk the hospital hallways with my IV pole when I could, because I knew from being a healthcare provider how important it was to stay as active as I could. But I did not do anything for my arms at all." The new guidelines call for some kind of resistance training twice weekly, and Wyner feels that could have been helpful to her: "At one point, after my chemo treatments were over, I was home and I decided to

get something out of a lower cupboard in my kitchen. It was so shocking to me when I realized I could not get up. For the life of me, I could not push or pull myself off of that floor. I couldn't get to a phone, to a window... I was stuck there. I realized how weak I was, how weak my arms were... I'm lucky someone was able to help me, or I would have been in real trouble."

What you can do

If you are being treated for cancer, the exercise recommendations can certainly sound overwhelming, but it's important to remember the idea is to individualize the activity plan. Wyner suggests a little stretching and strengthening class during chemo infusions. "We were there all the time anyways, why not do something formal right then and there? It could be something basic and easy, modified for where the patients are at. It could really help people."

The idea is for patients to do whatever they can manage, as they will reap the benefits, from conditioning to emotional well-being to relapse prevention.

Sources

A systematic review and meta-analysis of the safety, feasibility and effect of exercise in women with stage II+ breast cancer. *Archives of Physical Medicine and Rehabilitation*, May 2018.

Efficacy of exercise interventions in patients with advanced cancer: A systematic review. *Archives of Physical Medicine and Rehabilitation*, May 2018.

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