

Breathing symptoms during exercise in childhood cancer survivors: what factors matter

Summarized by Maša Žarković

What did we want to find out with our study?

Breathing symptoms such as shortness of breath or coughing are common in children and adolescents during exercise. Childhood cancer survivors may be more likely to experience these symptoms because cancer treatments can affect the lungs and overall fitness. We wanted to find out how often these symptoms occur in young survivors and what factors might be contributing to them.

Why is this important?

Exercise is very important for staying healthy after cancer. It helps the heart, lungs, and muscles recover and supports mental well-being. But if activity leads to uncomfortable symptoms, children may avoid exercising altogether. Knowing what factors contribute to these symptoms can help doctors and families take the right steps to keep survivors active and feeling well.

What did we exactly do?

We included 196 childhood cancer survivors aged 6 to 21 years who attend follow-up care in Bern, Basel, and Geneva. All had completed cancer treatment at least one year earlier.

Participants or their parents answered questions about breathing symptoms during exercise. We then analyzed whether previous cancer treatment, body weight, physical activity, or whether they had asthma were linked to breathing symptoms during exercise.

What did we find out?

Symptoms during exercise were common: one in four survivors reported them. The most

frequent were shortness of breath, coughing, or a tight feeling in the chest while being active. These symptoms were more common in girls, older teenagers, those with asthma, survivors who were overweight, and those who were not regularly physically active. Cancer treatments were not linked to more breathing symptoms. Instead, almost half of these symptoms could be explained by asthma, low physical activity, or being overweight — factors that can usually be treated or improved.

What does this mean?

Breathing symptoms during exercise are quite common among childhood cancer survivors, but they are often caused by manageable conditions, rather than by lasting damage from cancer treatment. If these symptoms occur, survivors should discuss them with their doctors to identify the underlying causes and appropriate treatments. With good asthma care, regular physical activity, and healthy weight management, many of these symptoms can be prevented or reduced. Survivors should be encouraged to stay active in a way that feels safe and enjoyable.

Reference: Žarković M, Nigg C, Schindera C, Goutaki M, Lürer S, Ansari M, Kuehni CE. Exercise-induced symptoms in young childhood cancer survivors. *J Cancer Surviv.* 2025 Aug 15. doi: 10.1007/s11764-025-01877-3

Here is the full article in English: [Link](#)

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