

CLINICAL SUMMARY

Prognostic effect of weight loss on survival in multiple cancer types

Oncology patients who maintain weight demonstrated longer survival compared to those with weight loss in a variety of cancer types.

Weight loss of as little as 5% of body weight is shown to worsen prognosis.

Weight loss and malnutrition have been associated with a variety of poor outcomes in multiple cancer types. Disease and treatment related symptoms such as nausea, loss of appetite and diarrhea, can contribute to weight loss. The goal of nutrition therapy is to minimize or reverse weight loss to improve treatment response, quality of life, symptoms, and minimize treatment breaks.

The frequency of weight loss and its relationship to survival and performance status in a variety of cancer types prior to chemotherapy was evaluated. Data were collected from multiple prospective clinical trials completed by the Eastern Cooperative Oncology Group. Case records of patients with histologic or bone marrow confirmed malignancies with no previous chemotherapy treatment were analyzed as part of this study.

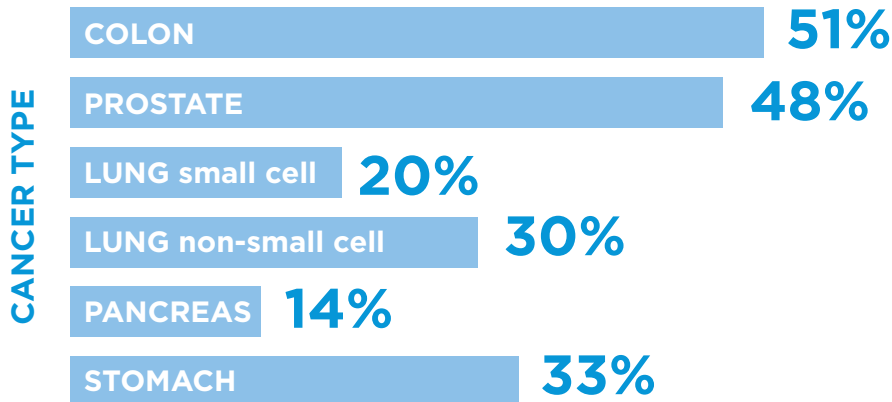
Pretreatment weight loss and performance status were collected from a total of 3,047 patient records. Stated weight loss was recorded for 6 months prior to treatment and performance status was scored from fully active to completely bedridden on a 5 point scale. To analyze survival, date of death was known for 91% of the patients with the exception of lymphoma (only 28% had died at the time of analysis).

Conclusions

The reported findings established the relationship between weight loss and its negative impact on treatment response and survival in multiple cancer types. The correlation between weight loss and performance status may suggest that the loss is coming from muscle and therefor impacting activity level. Knowing the negative impact of weight loss established the need for nutrition screening and intervention to help minimize weight loss in cancer patients.

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This chart represents survival improvement with no weight loss relative to survival with weight loss.



- The highest frequency of weight loss (of more than 10% of body weight) was seen in 83% of pancreatic cancer patients and 87% of gastric cancer patients.
- In each tumor type, patients who had experienced any weight loss prior to treatment experienced shorter survival compared to those without weight loss.
- The interaction between weight loss and poor performance status on survival was found to be directly correlated and significant in patients with favorable performance status (fully active and ambulatory, capable of light work). Shorter survival was observed if patients had lost weight prior to treatment.
- The majority of patients with unfavorable performance status had all lost weight which may be expected as weight loss from lean body mass would alter activity level and performance status.

NUTRITION CONCLUSION

While it is known that a large amount of weight loss adversely impacts outcomes, this study demonstrated that a loss of less than 5% of body weight may significantly impact survival and treatment response.

Dewys WD, Begg C, Lavin PT, et al. Prognostic effect of weight loss prior to chemotherapy in cancer patients. Eastern Cooperative Oncology Group. *The American journal of medicine*. Oct 1980;69(4):491-497.