

# EXERCISE CAN IMPROVE QUALITY OF LIFE AND DECREASE CANCER-RELATED FATIGUE

## IN HIGH GRADE GLIOMA PATIENTS UNDERGOING TREATMENT

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### Who was included?

Those with a diagnosis of high grade glioma who were going to be undergoing treatment with radiation and temozolomide. It was a small study sample that included a total of 17 participants assessed at end of study. Radiation + temozolomide is a 6 week course. The tracking started at the beginning of treatment (week 0) and continued through treatment + 4 additional weeks after treatment ended for a total of 10 weeks.

### What was the intervention?

Participants were enrolled in one of three groups (usual care, exercise education only or education + exercise intervention) based on time of enrollment. Participants in usual care did not receive an intervention. Participants in the education only group received education on staying active during treatment, physical activity log and Fitbit. Those in the education + exercise intervention group received the education session, once weekly in person resistance training classes, physical activity log and Fitbit.

### What was assessed throughout the study?

The main purpose of the study was to assess feasibility of doing an exercise intervention during treatment in this specific patient population and if exercise could decrease cancer-related fatigue and improve quality of life. The latter two outcomes were assessed at week 0, week 3 and week 10 for all groups. In addition, physical fitness measures were assessed at the same intervals in the education only and education + exercise intervention groups.

### What were the results?

Exercise group participants attended 80% of classes (with a decrease in attendance during the COVID pandemic + participant relocating) thus confirming this intervention is feasible. There were favorable changes in regards to cancer-related fatigue, quality of life and physical fitness measures in the exercise group compared to the other groups. More studies within this oncology group need to be conducted to validate these results but overall exercise may be a safe and effective intervention in the high grade glioma population for the reasons above!

