

# Depression could shorten cancer survival, study suggests

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Screening for mental health should be part of standard care, experts say.

(HealthDay) -- Symptoms of depression are linked to shorter survival times among cancer patients, according to a new study.

The link may be attributed to abnormal stress hormone regulation and inflammatory [gene expression](#), researchers from the University of Texas M.D. Anderson Cancer Center reported in the Aug. 1 edition of *PLoS ONE*.

"Our findings, and those of others, suggest that mental health and social well-being can affect biological processes, which influence cancer-related outcomes," Lorenzo Cohen, a professor in the center's departments of general oncology and [behavioral science](#), and director of

the Integrative Medicine Program, said in a university news release.

The findings "also suggest that screening for mental health should be part of standard care because there are well-accepted ways of helping people manage distress, even in the face of a life-threatening illness," Cohen added.

In conducting the study, the researchers analyzed surveys completed over a five-year period by 217 patients newly diagnosed with [kidney cancer](#) that had spread. The participants answered questions about how religious and spiritual they were. They were also asked about their symptoms of depression, social support, quality of life and [coping skills](#).

The patients also provided [blood samples](#) as well as five saliva samples daily for three days. The researchers used the saliva samples to track changes in the patients' levels of cortisol, a stress hormone that is usually high in the morning before dropping throughout the day.

At the time of the analysis, 64 percent of the patients had died. The average amount of time these patients survived after being diagnosed was 1.8 years.

Overall, the study revealed that 23 percent of patients were clinically depressed. Even after taking other disease-related risk factors into account, the investigators noted that depression was associated with shorter survival time. Moreover, the study showed that higher than usual [cortisol levels](#) throughout the day were also linked to shorter survival among the [cancer patients](#).

Using tissue samples from 15 of the patients with the most significant symptoms of depression and 15 samples from the patients with the mildest forms of depression, the researchers then conducted whole-genome profiling to determine if the depression is linked to increased

risk of death for cancer patients.

They found specific signaling pathways, which play a key role in regulating cell inflammation, were expressed at increased levels in patients with depression. The study authors concluded the link between patients' mental health and survival time is associated with inflammatory gene regulation.

"Our findings indicate that we're now able to understand some of the possible biological pathways that explain the association between depression and survival," Cohen noted.

The researchers noted that the study was limited by the fact that it's difficult to determine if patients' stress or [symptoms of depression](#) are influenced by other factors or were present before their cancer diagnosis. While the study uncovered an association between depression and cancer survival, it did not prove a cause-and-effect relationship.

More research is needed to investigate if the treatment of depression can improve survival time among cancer patients with mild, moderate or severe mood disorders, the authors added.

**More information:**

The U.S. National Cancer Institute has more about [cancer and depression](#).

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