

Medication protects fertility and defense system during chemotherapy

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While targeted cancer treatments have reduced side effects and improved efficacy, chemotherapy remains the backbone of combination therapies for many forms of cancer. Unfortunately, cancer patients may suffer from several side effects from chemotherapy, including infertility and a weakened defense system that makes them susceptible to life-threatening infections.

A study recently published by the journal, *Endocrinology Today*, holds hope for cancer patients undergoing [chemotherapy](#) to avoid two of the serious side effects and to stop cancer's growth.

Researchers at Los Angeles Biomedical Research Institute (LA BioMed) and the University of Southern California found the potent humanin analogue (HNG) protected male germ cells, which are essential to fertility, and [white blood cells](#), which are the soldiers in the body's defense system, in cancer research models undergoing chemotherapy. The researchers also reported that HNG reduced metastases, or the spread of [cancer cells](#) to other organs in the body.

"Our study suggested that including HNG in chemotherapy may help [cancer patients](#) avoid infertility and a weakened defense system against infection while also increasing the effectiveness of the chemotherapy," said Christina Wang, MD, an LA BioMed researcher and corresponding author of the study. "More research is needed, and we are working diligently to fully document and understand the protective nature of HNG against the side effects of chemotherapy."

Recent advances in the understanding of cancer cell biology and the use of multiple types of treatments have led to improved cancer survival. But to improve the quality of life in cancer survivors, the researchers said there is an increasing need to protect the healthy cells from the toxic effects of chemotherapy without disrupting the treatment's effectiveness in reducing or eliminating [cancer](#) cells.

"Based on our findings, we also believe that HNG could protect other vital cells, including those in the heart and brain, which may be damaged by [chemotherapy regimens](#)," Dr. Wang said. "We will be conducting additional studies to determine how HNG can help guard against some of the most serious side effects of chemotherapy."

Provided by Los Angeles Biomedical Research Institute at Harbor

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