

Certain heart meds may give chemo a boost

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Digitalis, digoxin appear to trigger immune response that helps kill tumor cells, study shows.

(HealthDay) -- When common heart drugs such as digitalis and digoxin are combined with some chemotherapy drugs, the effect appears to be an increase in the death of cancer cells, according to French researchers.

These medications, called glycosides, have been around for decades and are used to treat [heart failure](#) and [irregular heartbeats](#).

When combined with [chemotherapy drugs](#), however, they appear to act similar to a vaccine -- priming the immune system to kill [cancer cells](#).

"This is very exciting; it describes a new way to make chemotherapy more effective," said Marc Symons, an investigator at the Center for Oncology and Cell Biology at the Feinstein Institute for Medical

Research in Manhasset, N.Y. Symons was not involved in the study, which was published July 18 in the journal *Science Translational Medicine*.

The effect was first noticed when the French team, led by Laurie Menger from INSERM in Villejuif, combed through patients' medical records. They discovered that cancer patients undergoing chemotherapy who were also taking these drugs for heart trouble tended to do better than cancer patients who did not take them.

The authors said this appears to be because the drugs convert dead cancer cells into a kind of trigger that alerts the immune system to attack [tumor cells](#).

This approach to [cancer therapy](#) still needs to be tested, however, and the researchers said they plan to do so in patients with neck and [head cancer](#).

William Chambers, director of [Clinical Cancer Research](#) and Immunology at the [American Cancer Society](#), noted that the researchers also have developed a way of screening drugs to see if they will have this effect on cancer cells. That could help spot drugs that trigger an immune response, he said.

"It also reinforces the notion that the immune system and chemotherapy working in concert is really going to be important for effective treatments for cancer," he said. "Immunotherapy for cancer has been a 'sweet spot' in the last couple of years. A lot has been happening there."

"We have learned a lot about the immune response to cancer," he added. "There is a lot of potential here and I expect we are going to see a good bit more looking at this phenomenon."

One of the unanswered questions is what the effect will be of using these

heart drugs on cancer patients with healthy hearts.

"Digoxin and similar drugs have effects on the heart that could be side effects in patients with normal hearts," said Dr. Kirk Garratt, director of interventional cardiovascular research at Lenox Hill Hospital in New York City.

These effects could pose a problem for these patients, he said, "but right now I don't see this as a problem in pursuing this research."

Garratt cautioned chemotherapy patients that not enough is known to add these drugs to their treatment at this point in time.

"It's too early to take that action," he said. "We don't know what side-effect issues might surface. We don't know what the downside will be, and there is always a downside."

For heart patients, however, these drugs are very safe, Garratt said. And there's another up side, he added: Since these drugs have been around for years, they are generic and inexpensive.

Although the study revealed an association between the use of these [heart drugs](#) and an increase in the death of cancer cells, it did not prove a cause-and-effect relationship.

More information: To learn more about cancer immunotherapies, visit the [American Cancer Society](#).

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