

New targeted radiation treatment reduces bone pain, extends survival in prostate cancer patients

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Prostate cancer that has spread to the bones can cause pain and fractures.

Loyola University Medical Center is among the first hospitals in Chicago to offer a new targeted [radiation treatment](#) that can reduce bone pain and the incidence of fractures – and also extend patients' lives.

The treatment, recently approved by the Food and Drug Administration, is called Xofigo®. A [radioactive substance](#), radium-223, is injected into the patient. Because it is similar to calcium, radium-223 binds to the bone. Radium-223 delivers high-[energy radiation](#) over a short distance, providing a targeted treatment that is less damaging to other structures or tissues, said Robert Wagner, MD, medical director of Nuclear Medicine in Loyola's Department of Radiology.

Radium-223 is rapidly cleared from the blood stream. Fifteen minutes after injection, about 20 percent of the injected radioactivity remains in the blood. By 24 hours, less than 1 percent of radioactivity remains.

Xofigo is indicated for prostate cancer patients in which:

- the cancer has spread to the bones, but not to other organs
- the cancer is not responding to hormone therapy or surgery that blocks production of testosterone, and

- the cancer spread to the bones is causing other serious symptoms.

Radium-223 is injected into an IV line in a patient's vein, in a procedure that takes less than 5 minutes. The patient receives a series of six injections, given once every four to six weeks.

Side effects can include upset stomach, diarrhea, swelling in the hands and feet and decreased counts of [red blood cells](#), [white blood cells](#) and platelets.

"While the treatment is not a cure, it can enable patients to live longer, with significantly improved quality of life," Wagner said.

Provided by Loyola University Health System

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