

# New breast cancer radiation therapy shortens treatment, reduces side effects

April 15 2019, by Jim Ritter

---



Credit: CC0 Public Domain

Loyola Medicine and Palos Health are offering a new breast cancer radiation therapy that shortens the treatment time by three weeks, while reducing side effects.

The [treatment](#) is offered to patients who have undergone lumpectomies

for early-stage [breast cancer](#) that has not spread to lymph nodes. It's called MRI-guided accelerated partial breast irradiation (APBI).

The treatment is available at the Loyola Center for Cancer Care and Research at Palos Health South Campus in Orland Park. The center is the only site in Illinois that offers MRI-guided APBI.

Traditionally, [breast cancer patients](#) who received radiation after lumpectomies were treated on 33 days over 6 ½ weeks. Over the past few years, the regimen has shortened to 20 days over four weeks.

MRI-guided APBI shortens the regimen further. The patient receives two radiation treatments per day for five days in a row. The daily treatments are given six hours apart in the morning and afternoon, said Loyola Medicine radiation oncologist Tamer Refaat Abdelrhman, MD, Ph.D., MSCI.

MRI-guided APBI is administered by a groundbreaking radiation system called MRIdian Linac. The Loyola Palos center is the first in Illinois – and only the fifth in the country – to offer the system, which targets tumors with millimeter precision. An ultra-sharp beam of radiation is delivered precisely to the tumor cavity, even if body functions such as breathing cause movement during treatment. This minimizes damage to surrounding tissues.

In traditional breast cancer radiation therapy, the radiation usually is delivered to the entire breast. In standard APBI treatment, the radiation is limited to a 2.5 cm.-thick rim of healthy tissue surrounding the lumpectomy cavity. In APBI guided by MRI imaging, there's even less exposure to healthy tissue – the margin is only 1 cm. to 1.5 cm. thick. The tighter margin and highly precise MRI guidance throughout every radiation treatment likely will reduce side effects, Dr. Tamer Abdelrhman said.

For more information on MRI-guided APBI, or to make an appointment, call 708-873-2450.

Loyola Medicine also is offering a [radiation therapy](#) for certain [early-stage breast cancer](#) patients that provides all the radiation they require in a single concentrated dose delivered during surgery. After the tumor is removed, a high, focused dose of radiation is delivered directly to the tumor cavity to kill any microscopic cancer cells left behind. It's called intraoperative radiotherapy, or IORT. (Intraoperative means during surgery.)

After the breast surgeon has removed the tumor, a spherical radiation device is placed in the tumor cavity to deliver the radiation. Because the [radiation](#) does not have to travel through healthy tissue to reach the site, much higher doses can be safely applied.

Provided by Loyola University Health System

Citation: New breast cancer radiation therapy shortens treatment, reduces side effects (2019, April 15) retrieved 9 July 2023 from <https://medicalxpress.com/news/2019-04-breast-cancer-therapy-shortens-treatment.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--