

Super Accurate Radiation Robots Kill Cancer Cells and Leave Healthy Ones Untouched (w/ Video)

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Varian's TrueBeam is the latest automated radiation system that can kill tumors with sniper-like precision. Credit: Varian Medical Systems

(PhysOrg.com) -- Traditional radiation therapy has been used for years to kill cancer cells. The disadvantage of using this method is that healthy cells are also destroyed along with the cancer cells. In the past ten years radiation blasting robotic systems have been introduced that can target and fire with millimeter precision.

These new super-accurate radiation-blasting robotic systems have been used in a wide range of cancer treatment and have proven their effectiveness in killing cancer cells while leaving the healthy cells untouched.

Accuray and [TomoTherapy](#) have been the two big names for years in providing state-of-the-art [cancer treatment](#). Now a med-tech giant Varian has just released their automated radiation-blasting system called TrueBeam. This system provides more accurate targeting of cancer cells than the other two.

Each of these systems work slightly different but they all kill cancer cells in tumors using high energy radiation. The new generation of radiation robots is lowering the rate of dead healthy cells by more accurately targeting the [cancer cells](#).

The three videos below will demonstrate how each system operates:

Accuray's automated radiation machine, 'Cyberknife', pivots and tilts around you to find the best access point to irradiate the tumor with millimeter accuracy.

TomoTherapy uses a shuttering system on their machine to achieve similar accuracy as Accuray.

The latest edition, **Varian's TrueBeam** system works in conjunction with their RapidArc software to provide dynamic adjustments with only a 10 ms delay.

In each system doctors program the desired target area in the body and the machine will pivot and adjust itself to hit the tumor on its own. Each machine can treat a wide variety of cancers ranging from brain to [prostate cancer](#).

More information: [Varian](#), [Accuray](#), [TomoTherapy](#)

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