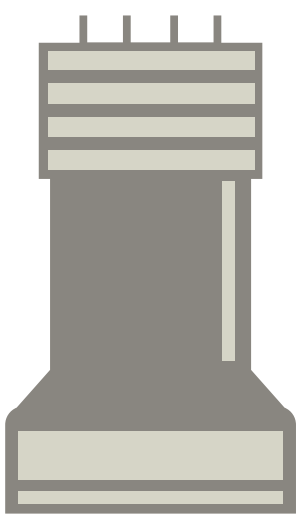
A CLOSER LOOK AT

SOLID-STATE GAMMA TECHNOLOGY



Standard PMT Tube

Solid State Detector

Detector Heads Solid-State vs. Analog

One of the most noticeable differences between solid-state and analog nuclear imaging is the size of the detector heads.

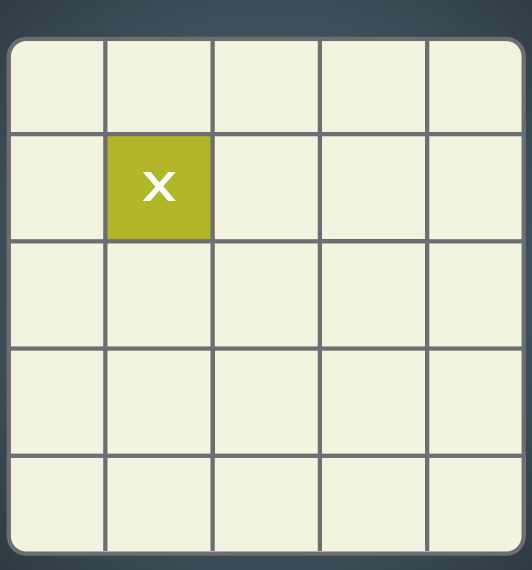
Analog gamma cameras use photomultiplier tubes (PMTs) and hygroscopic sodium iodide (NaI) crystals which require a significant amount of space.

How big is the difference?

Anger heads can weigh as much as 600 pounds while a solid-state head can range between 25 and 90 pounds.

THAT'S OVER 600% LIGHTER

Solid State = Pixelated Detector



X Marks the Spot!

To locate the event using analog technology the data has to be "summed" by a software application. Solid-state technology uses a pixelated detector that identifies exactly where the gamma ray photon is emitted from. So X really does mark the spot.

IT'S ALL SOLID-STATE

CZT
Cadmium Zinc Telluride

Direct Conversion uses cadmium zinc telluride (CZT)

CsI
Cesium Iodide

Indirect Conversion uses cesium iodide (CsI) with a photodiode.

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types of solid-state nuclear imaging technology

Each method produces a higher quality image compared to Anger technology, and many practices find CsI to be more cost effective compared to CZT cameras.

What's in a solid-state gamma camera detector?

In the case of Digirad's technology, each solid-state gamma camera detector contains an array of individual detector elements, or pixels, and each one contains a Cesium Iodide (CsI) crystal that receives the event data.

Digirad

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For more information about Digirad's Solid-State gamma cameras visit www.digirad.com

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