

The Approach

Spectrum Dynamics Medical empowers Nuclear Cardiac Imaging with the SmartR Technology of the D-SPECT[®] Cardiac Imaging System. The D-SPECT is powered by BroadView™ Technology to provide unprecedented throughput, while not only maintaining, but improving resolution.

Faster Imaging...Improved Throughput

The D-SPECT Cardiac Imaging System can complete a Gated SPECT study in only 2 minutes. This is a significant improvement over current technologies that require 12-20 minutes. This incredibly fast, high quality acquisition can be achieved through the optimized features of BroadView™ Technology in the D-SPECT:

- Larger radiation collection angles and a unique scan pattern provide up to 10x more efficient photon collection, leading to improved count statistics and higher quality images
- Novel design of scanning solid state detectors and unique reconstruction algorithms that may improve resolution by up to a factor of 2
- Automation and personalization of acquisition

Key Clinical benefits of the D-SPECT Cardiac imaging system:

- Open Gantry Design Eliminates Claustrophobia
- No Perceivable Gantry Motions Eliminates Pinch Points and Need for Contact Sensors
- Upright and Supine Imaging (or anything in between) for Enhanced Comfort and Maximum Imaging Flexibility
- Increased throughput with Gated SPECT acquisitions as fast as 2 minutes*
- Small Footprint: 8'5" x 9' **
- Chair Weight Limit - 542 lbs.
- Advanced Imaging Applications:
 - Ultra-Low Dose (<3 mSv)
 - Simultaneous Multi-Isotope
 - Dynamic SPECT (CFR)***

**Based on Camera, Dose Injected & Imaging Acq. Parameters*

*** Upright Footprint*

**** Works in Progress, Not Commercially Available*

Comparison

	D-SPECT®	Anger Spect	D-SPECT Benefits
Detector Technology	CZT solid state detectors	Analog, NaI based and fixed detectors	Significantly improved energy resolution, simultaneous dual isotope imaging and exceptional throughput
Number of Detectors	6 or 9 independent detectors	2 larger detectors	Enables scan pattern optimization and significantly increases in sensitivity
Set-Up	Automatic set-up	Manual set-up	Enhanced workflow
Quality Control	RFID patient dose checking	No QC check for patient dosing	Ensures patient-dose match
Scanning Technology	Specified region of interest scanning	Non-selective, general FOV acquisition	Better count statistics in the region of interest and significantly shortens acquisition time
Motion	No perceivable camera motion and no chair motion	Detectors rotate around patient and the chair rotates with the patient	Improved safety
Patient Position	Natural sitting position	Raised arm or unnatural position	More flexible and increased patient comfort
Speed	2 Minutes for Gated SPECT	12-20 minutes for Gated SPECT	Higher patient throughput and potential for new applications