

Spectrum Dynamics, the Global Leader in Nuclear Cardiac Imaging, Continues to Innovate with Ground-Breaking Technology of VERITON



Spectrum Dynamics' sole focus is the development of high-definition nuclear imaging technology that meets the clinical and workflow demands of today's diagnostic imaging market. Since introducing the revolutionary nuclear cardiac-imaging system, D-SPECT, Spectrum Dynamics has become a proven leader in technical innovation and image quality. With over 2 million patients scanned to date, a large install base in the leading universities and centers around the globe and a 99% up-time performance, Spectrum has become synonymous with outstanding customer service, quality and reliability. Spectrum Dynamics is now taking the core technology of D-SPECT and introducing a quantum leap in full body molecular imaging which provides unparalleled performance versus rapidly aging conventional technologies.

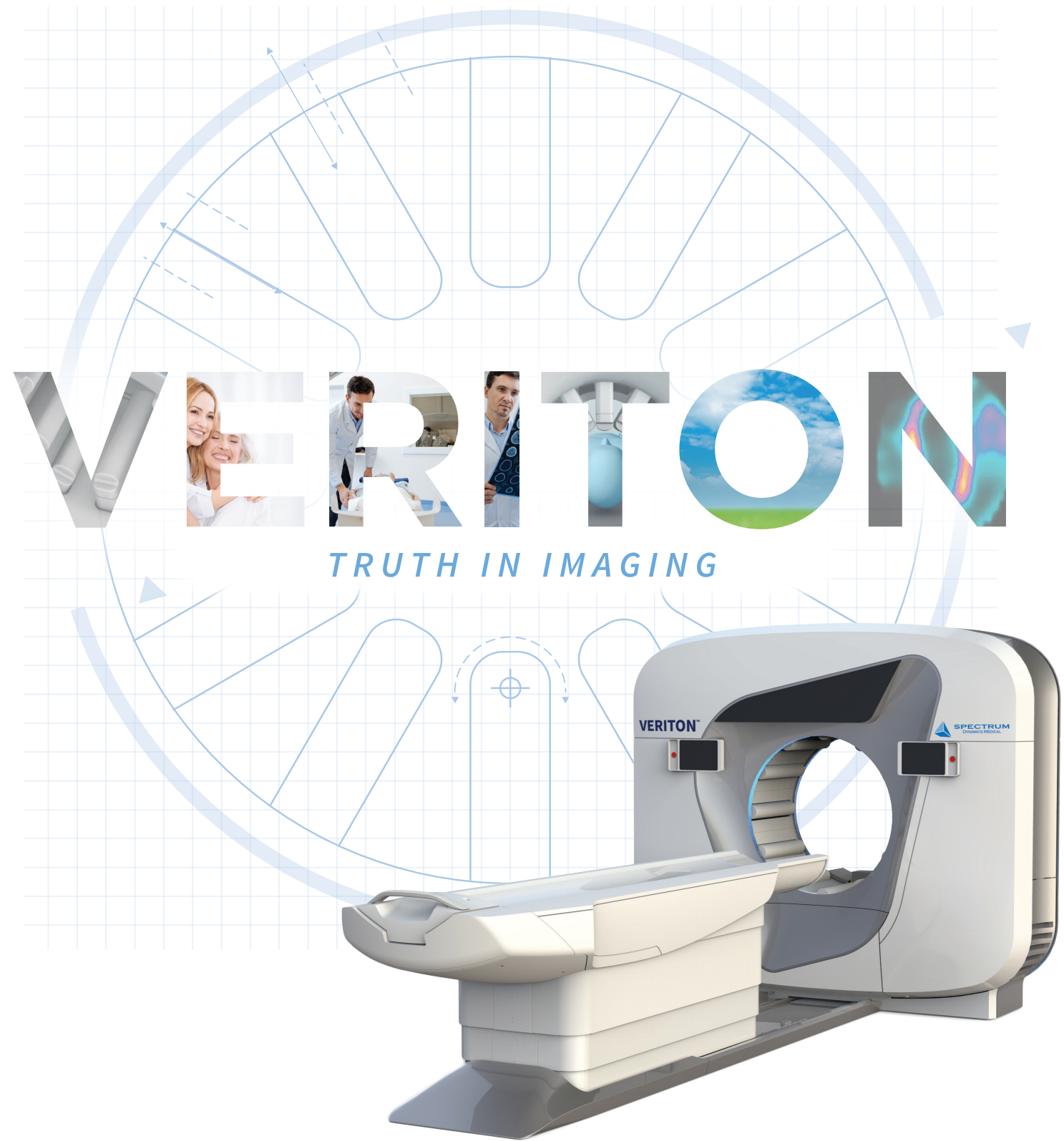
VERITON

Multi-Purpose SPECT Scanner

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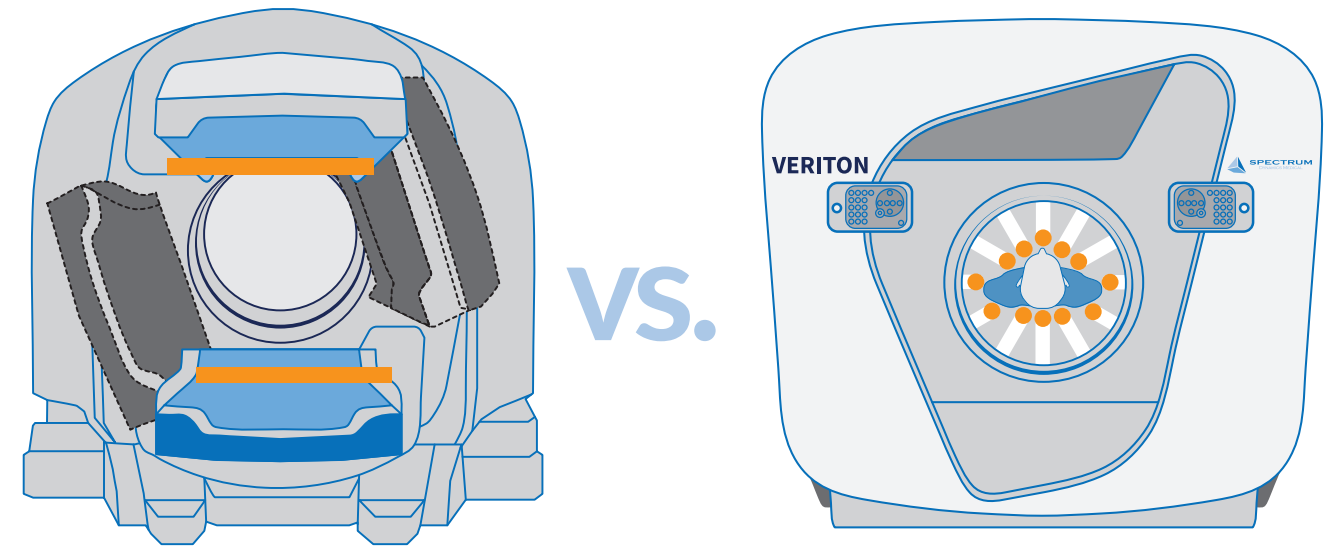
Changing the Shape of Nuclear Medicine

VERITON[®] Multi-Purpose SPECT Scanner



Nothing Gets Closer Introducing 360° Body Contour Scanning

With 360 degree detector coverage, and unique proximity sensors providing 3X volumetric sensitivity vs current technologies, no other nuclear medicine system is able to get as close as VERITON[®].



If the human body was flat, first-generation detectors would work great.

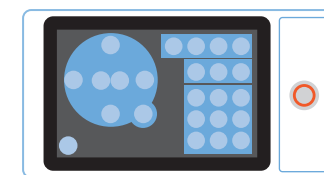
The new VERITON was designed with the three dimensional human body in mind. It uses 12 independent detector arms to provide 360 degree coverage. By surrounding the patient with detectors, photon detection is maximized and image quality is enhanced compared to traditional dual head arrays.

“VERITON can scan more patients, improve patient workflow and detect some diseases in different organs more precisely during studies...including Parkinson’s disease or Dementia staging. Having CZT, and on top 3D CZT from the head to the feet for the bone scan, is incredibly helpful.”

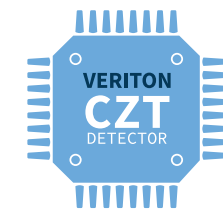
*Professor Denis Agostini, M.D., PhD.
Head of Nuclear Medicine Department,
Caen University Hospital, Caen, France.*

“All of our patients are impressed by the design of the camera and they also like the fact that the examination is shorter than with the former system. Recently we had two claustrophobic patients and we did not have any problem with them. With this camera, we can shorten the exam duration and obtain a better resolution.”

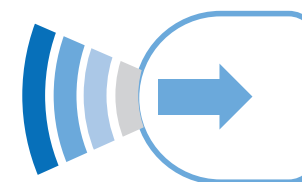
*Dr. Blandine Enilorac, M.D.
Nuclear Medicine Department,
Caen University Hospital. Caen, France.*



Touch screen interface for easy patient setup and positioning. Extended table scan range 200cm, limit 500lbs, integrated ECG monitoring, free float for egress if needed.



CZT detectors offer a direct conversion to digital with no analog phase. The head’s compact size and unique geometry allow for multiple detectors resulting in a more comprehensive output.



Proximity contouring allows the detectors to get within millimeters of the skin. Any incidental patient contact sends the detector away to the home position.



Spectrum Dynamics’ patented swivel head detectors are pixelated to align with the parallel hole tungsten collimators to allow for faster acquisition.

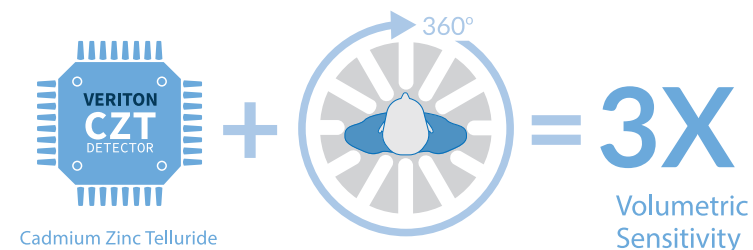
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Amplify the Impact of CZT

The VERITON system, enabled by the 360 degree contouring allows for maximized patient throughput; getting two 3D SPECT whole body bone scans in the same time as a traditional planar study with SPECT or static follow-up examination. CZT detectors, with their higher photon sensitivity, allow for decreased scan times and/or reduced doses in nuclear MPI studies. In addition to 3x the volumetric sensitivity compared to sodium iodide systems ensures photon capture and diagnostic detail.

Through CZT and 360 Contouring, the Increased Volumetric Sensitivity Can Double Patient Throughput

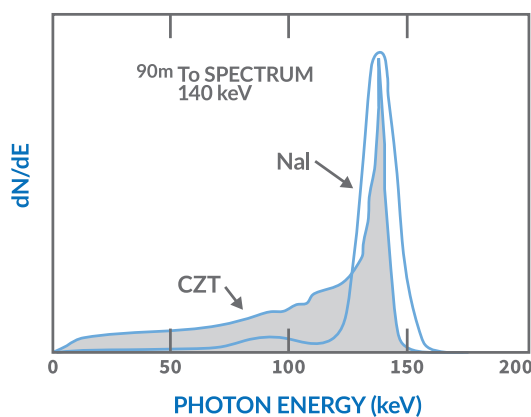


Designed to Deliver More

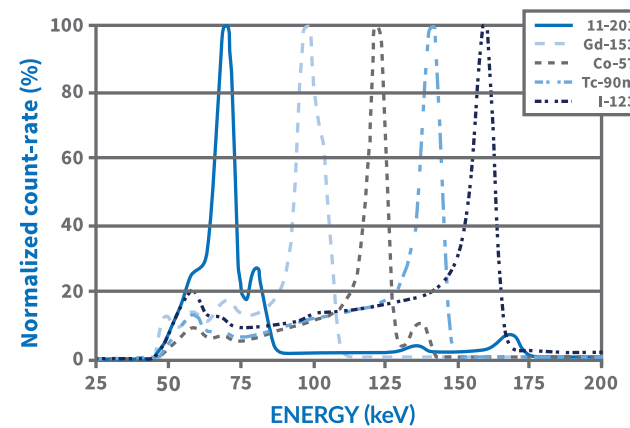
- Highest Count Rate ✓
- Improved Image Contrast ✓
- Decreased Imaging Times ✓
- 360 Coverage – Minimal Photon Loss ✓
- Swivel Detection ✓
- Registered Parallel Hole Collimation ✓
- Tungsten Collimators Reduce Scatter ✓

Simultaneous Dual Isotope Scanning

CZT detectors allow for more accurate acquisition and correction of the main and scatter photo peaks for each isotope within the range of 40 – 220 keV. As seen in cutting edge research, SDI may offer diagnostic benefits in neurology, cardiac, and infection imaging. Visualize multiple physiologic pathologies in one imaging session. This allows for less patient motion and the precise alignment of two different image sets acquired in the same session. Beyond the technical benefits, SDI techniques also provide an opportunity for increased patient satisfaction and lab optimization with decreased scanning times and sessions required.



Barone-Rochette et al. JNC 2015



Erlandsson et al. Phys Med Biol 2009

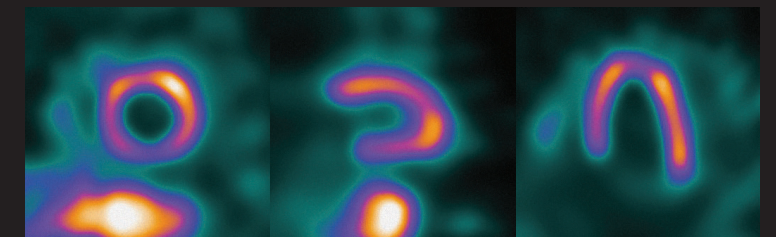
Dynamic 3D Scanning

The VERITON system is uniquely designed to allow for quantitative 3D SPECT dynamic imaging with applications ranging from cardiac, in the quantification of coronary flow reserve, to the visualization of tracer kinetics. New opportunities await SPECT imaging with this capability.

Built for Image Quality

CARDIAC

Using our proven CZT detector technology, VERITON enables greater protocol optimization. Consider a high resolution 2-minute MPI acquisition using a standard dose as shown here, or opt for significantly lower dose while maintaining short acquisition times. Examine ways to grow your future cardiac practice through expanded tracer use.



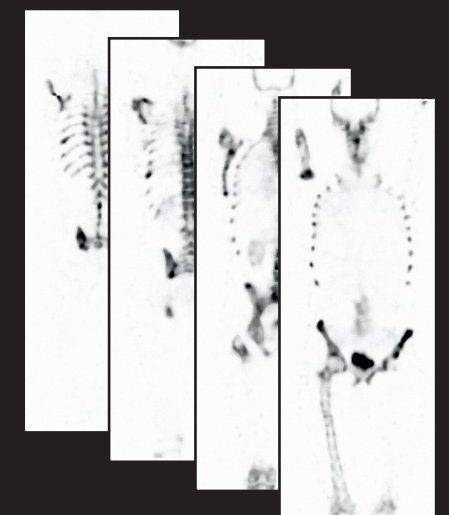
BONE

As a large component of clinical practice, elevate your department workflow and clinical confidence by replacing 2D planar whole-body bone scans with a single and comprehensive 3D SPECT whole-body acquisition in the same scan time.

Conventional 2D Planar Whole Body (15mins)

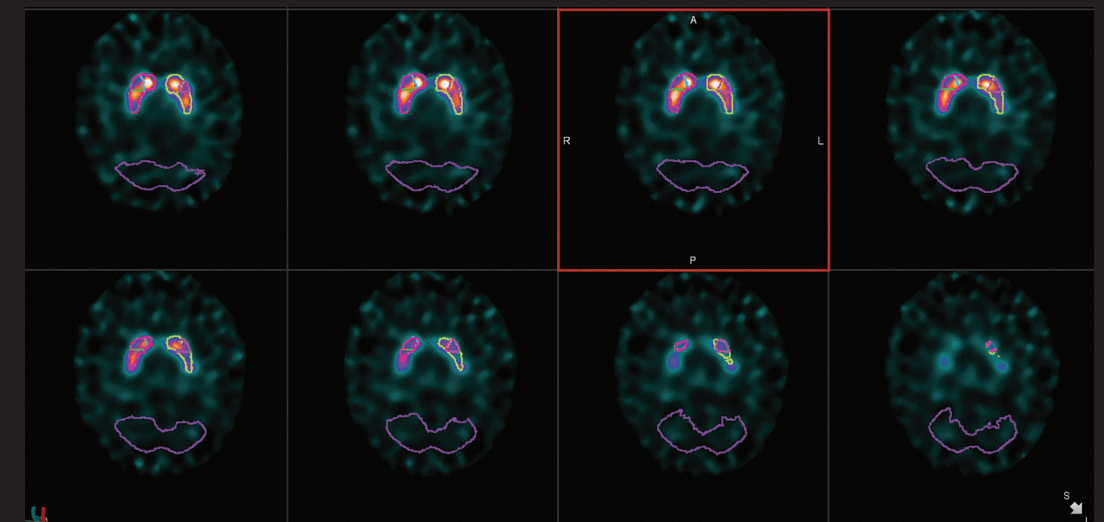


3D SPECT Whole Body (18mins)



NEURO

VERITON's exclusive 360° design which yields 3X volumetric sensitivity introduces a true molecular imaging alternative to PET. Use more cost-effective tracers combined with new higher resolution SPECT image detail to expand your nuclear diagnostic services.



See images, case studies and tutorials online at www.spectrum-dynamics.com/intro

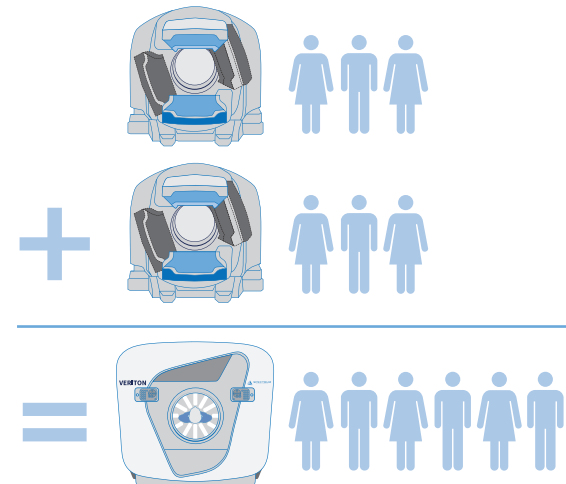
*Reconstructions incorporate external CT registration

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Maximum Economic Value

VERITON's ability to double the scanning speed in many applications, with fully 3D SPECT whole-body imaging, allows users to double patient throughput as well as reduce down-stream patient treatment times saving overall patient and departmental time with significant cost reductions.



Full Spectrum Productivity

The VERITON system opens up an intriguing array of financial opportunities. Institutions can sell redundant systems, increase patient throughput and add new revenue generating activities.

Income

- Sell redundant systems
- Process new or backlog patients
- Add additional income, freed up rooms can provide space for new imaging modalities

Cost Savings - Over 3, 5 or 8 years

- Eliminate future capital replacement costs
- Eliminate duplicate technical service contracts
- Optimize patient workflow
- Optimize departmental staff allocations
- Reduce radioisotope dosage cost

Clinical

- Direct digital conversion improves image quality
- Small detector optimized for organ proximity & improved resolution
- Higher spatial resolution provides potential for better lesion characterization
- Reduce time and/or radiation exposure
- Organ focus scanning modes
- Fully 3D SPECT whole-body imaging

Operational

- Faster scanning
- Increased patient comfort
- Customizable patient workflows

Integrated Image Processing Software to Simplify Workflow

With the power of a customized MIM software version, MIM-SD, built directly into the VERITON system, technologists have the opportunity to streamline their workflow and maximize their time with more focus on the patient. Additional vendor neutral MIM modules available as well.

- Automated ROI (region of interest) generation through customizable workflows
- Ability to save sessions for faster review by physicians
- Ability to add and edit ROIs after the technologist processes a session

