



IN STEP WITH

# Capintec

The Newsletter of Capintec, Inc.

SUMMER 2009

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# Capintec introduces the Captus® 3000 Portable Thyroid Uptake System



Captus® 3000 Portable Thyroid Uptake System

**Kathy Thomas, MHA, CNMT, FSNMTS**

The Captus 3000 Portable Thyroid Uptake System has been designed to meet the ever decreasing space available in nuclear medicine departments, outpatient imaging centers and private offices. This lightweight module, with a smaller footprint than the standard Captus 3000 Thyroid Uptake System, is easy to move and position, and includes enhanced range of motion for patients on a gurney, chair or standing. It can fold into a compact form for storage or transport to another location such as an alternate office location; additionally, the laptop and printer can be removed prior to transport or storage. The Captus 3000 Portable System

includes all of the well-known Captus 3000 software modules including thyroid uptakes, bioassay, fully automated quality assurance program using Cs-137 and Eu-152 rod sources, time activity analysis, wipe test functions, lab test procedures and data storage and retrieval.

Let's explore the Captus 3000 Portable Uptake System. Large wheels on the back make it easy to roll the unit to any location. The spring arm is locked into place prior to transport. The probe, well and notebook are powered by the onboard charging system which requires a continuous source of electricity to operate; therefore, once in place, make sure that the unit is

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## Technical Tips

**Important Note:** To expedite your call to Technical Support, please have the Serial Number and Software Version of your unit available.

### Well Counters:

**Question:** What is a 'generic nuclide' that uses a generic conversion factor and how does it apply to counting wipe samples in the well counter?

**Answer:** The 'generic' nuclide - or 'all channel' nuclide is an artificial construct that utilizes all the channels when counting a wipe sample. The activity of the 'generic' nuclide is always reported for Wipe and Unrestricted categories. Unlike specified nuclides that require a conversion factor (or efficiency), the conversion factor (CF) for the generic wipe cannot be measured. The default

value for the generic, or all channel nuclide, is 2.7 Bq/cps (efficiency = 37.04%). To change the CF or efficiency for the generic nuclide, the user must answer 'No' when confirming the conversion factor or efficiency data, then choose 'Input' to enter a factor different from the default.

**Question:** What is the minimum and maximum activity for the calibration rod source in the well counter?

**Answer:** A Cs-137 rod source is most often used for well counter calibration. The minimum activity is 0.1 uCi and the maximum activity should not exceed 1 uCi. The recommended activity is 0.5 uCi.

**Question:** How much activity can I count in the well counter?

**Answer:** The greater the activity...the higher the deadtime, and at some

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## Important Notice for all customers using 3rd party Nuclear Medicine Managers:

Although performing QC from a third party nuclear medicine manager is convenient - there are inherent problems that can result when the daily test is not performed using the dose calibrator's display unit. The daily test assesses the following functions of the unit:

- **Auto Zero:** measures voltage drift from the last measurement and must be within 3% of the previous reading.
- **Bkg:** measures background in the lab and must be < 10 uCi.

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point, the actual deadtime becomes so high that the counting ability of the well is exceeded, resulting in a precipitous drop-off in counts. Well counters are designed to count sub-microcurie amounts of activity. Be careful not to exceed the counting capacity of the device.

**CRC®-Dose Calibrator:**

**Question:** How do I delete an old reference source and add a new one?

**Answer:**

- Press the UTIL (or MENU) key
- Select SETUP
- Select OTHER
- Enter your password (in most cases the last three numbers of your serial number)
- Select TEST SOURCES (or SOURCES)
- Select the appropriate test source from the Test Source Menu
- The display screen will display the current reference source
- Select 'N' (the 6 key) to add a source or delete a source
- Select 'Y' when asked 'Do you have Co-57?'
- Enter the serial number, calibration

date for the source (NOT today's date!) and calibration activity.

- Confirm that the appropriate unit of activity is selected (e.g. mCi, uCi) - use the right arrow key (➡) to scroll through the activity units
- When the activity and unit value is correct, press the ENTER key
- Indicate whether the source will be used for the Daily test by selecting 'Y' or 'N'
- Review the reference source information, and if correct, press the 'Y' key. If there is an error, press the 'N' key and make the necessary corrections.

- Press the HOME key and run the Daily Test to confirm that the new reference source has been added correctly and is displaying the correct activity in the Daily Test procedure.

**Question:** What is the minimum recommended activity for chamber test sources?

**Answer:** Capintec recommends replacing Test Sources that have fallen below the recommended minimum activity noted below. **Note:** refer to your radioactive materials license for additional activity requirements.

**Minimum at Current Time**

Source	Ci	Bq
<b>Co57</b>	50.0 µCi	1.85 MBq
<b>Co60</b>	50.0 µCi	1.85 MBq
<b>Ba133</b>	50.0 µCi	1.85 MBq
<b>Cs137</b>	50.0 µCi	1.85 MBq
<b>Ra226</b>	50.0 µCi	1.85 MBq

**Maximum**

Ci	Bq
1.0 Ci	37000 MBq
1.0 Ci	37000 MBq
1.0 Ci	37000 MBq
1.0 Ci	37000 MBq
1.0 Ci	37000 MBq

If you have questions that you'd like to see published, please contact Kathy Thomas at [kthomas@capintec.com](mailto:kthomas@capintec.com).

# Count on Capintec with our CRC®-25 Dose Calibrators

## The new Generation of Quality Calibrators from Capintec

Enjoy the Features You Have Always Counted on with Capintec Dose Calibrators Plus Enhanced Software Features in our CRC-25 Dose Calibrator Family!

- USB/PC Communications
- SD flash card software upgrade
- USB printer capability
- Chamber plug-and-play capability
- Optional remote that communicates over a high-speed serial interface and plugs into the chamber
- Both remote and chamber can be placed 100 feet from the readout unit
- Selection of Nuclide and Daily Test can be done with the remote

Count on Capintec with the new CRC-25 Dose Calibrator line: Call a Capintec representative to find out how the CRC-25 series can benefit your department!



Count on Capintec with Our

## CAP-Cell<sup>®</sup> Isolator



The new Capintec CAP-Cell<sup>®</sup> Isolator is designed to provide a Class 100 clean air environment to meet the new and more stringent requirements of USP <797> for aseptic sterile compounding.

The system incorporates a sealed glove box with transfer chamber, 1/8 inch of lead shielding to front wall, sides, and floor. Additional shielding on the front face provides a full ¼ inch body shield and lead glass view window. Optional ¼ inch available on sides and floor. This is an ideal system for compounding and dispensing injectable Nuclear Medicine radiopharmaceuticals and eliminates the expensive requirement for placement in a Class 10,000 room.

To learn more about the CAP-Cell<sup>®</sup> Isolator and many other great Capintec products, contact a Capintec representative at 201-825-9500 or toll free at 800-631-3826.

### Portable, From Page 1

plugged in before making any measurements.

The unit comes standard with a laptop computer, probe and printer. The optional well expands its capabilities to include wipe and laboratory testing.

Optional features available with the Portable Captus 3000 Thyroid Uptake System include CapDICOM<sup>™</sup> software, which interfaces with the institution's network system (HIS/RIS and PACS), and the Absorbed Dose Alert Software, designed to meet the challenges of population screening for radioactive contamination (inhaled, ingested or external) for a radiological or nuclear terrorism incident, such as a dirty bomb Custom Protocol, which allows the user to customize both measurement sequence and calculations in a customized protocol.

For additional information about the new portable Captus 3000 Thyroid Uptake System, contact a Capintec Representative at (800) 631-3826 or (201) 825-9500.

### Notice, From Page 1

- **System Voltage:** compares the current chamber to the chamber voltage set at the factory. An error message is displayed if there is a drift outside the normal range.
- **Data check:** performs an internal review of the nuclear data base.

Daily performance of the tests listed above is essential for optimal operation of the dose calibrator. If your dose calibrator is connected to a 3rd party nuclear medicine manager, perform the daily test from the display keyboard FIRST, then run the remaining calibrations from your nuclear medicine manager.

Visit [www.capintec.com](http://www.capintec.com) for more information on any of our products!

## Capintec Offers Financing Options

Capintec understands the needs and current financial restrictions of the medical community. That is why we're offering the most competitive financing solutions available to help you acquire equipment and technologies to help your department grow.

To custom fit a program to match your institution's financial needs, please contact your Capintec representative or stop by booth #716 at the SNM annual meeting for more information pertaining to these flexible financing options.

## Capintec Meeting Schedule

July 13-16	<b>International Symposium on Radiopharmaceutical Sciences</b> *Passports are required for this meeting	Edmonton, Canada
Sept 23-26	<b>World Molecular Imaging Conference</b> *Passports are required for this meeting	Montreal, Canada
Oct 1-4	<b>ASNC</b>	Minneapolis, MN
Oct 10-14	<b>EANM</b> *Passports are required for this meeting	Barcelona, Spain
Nov 6-7	<b>SNM Northeast Regional</b>	Rye Brook, NY
Nov 29-Dec 4	<b>RSNA</b>	Chicago, IL

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You can also view us on the web at [www.capintec.com](http://www.capintec.com) under our "News" section



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# Small Field...**Big View**



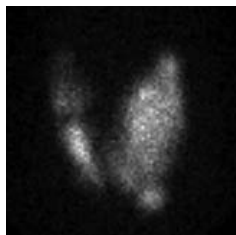
**Capintec, the leader in energy measurement, is proud to introduce the CapIMAGE™ Gamma Camera**

**CapIMAGE is an all new small field of view gamma camera system ideal for imaging:**

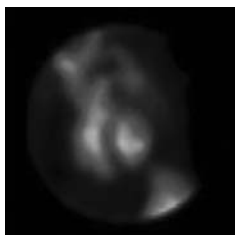
- I-123 and Tc-99 thyroid imaging
- Gated cardiac wall motion studies
- Small organ and body parts that can be accommodated with the 8.25 FOV (including pinhole and planar images) or 12.0 FOV at 5" from the surface of the diverging collimator

**CapIMAGE provides:**

- Small footprint
- Easy maneuverability
- Upright or supine imaging capabilities
- Highly versatile detector head for rapid positioning
- Rapid collimator exchange



LAO Pinhole Thyroid



Gated MUGA LAO



Right Shoulder

**Functionality is the key to the CapIMAGE™. To learn more about this exciting new product contact a Capintec representative at 201-825-9500 or toll free at 800-631-3826.**