



*Advances in Early Diagnosis
and Treatment of Cancer*

July 17, 2007

- **Wide Bore Computed Tomography**
 - Provides highly detailed imaging that serves as a roadmap for radiation therapy treatment



- **Wide Bore Computed Tomography**
 - **Doctors can see exactly where a tumor is located**

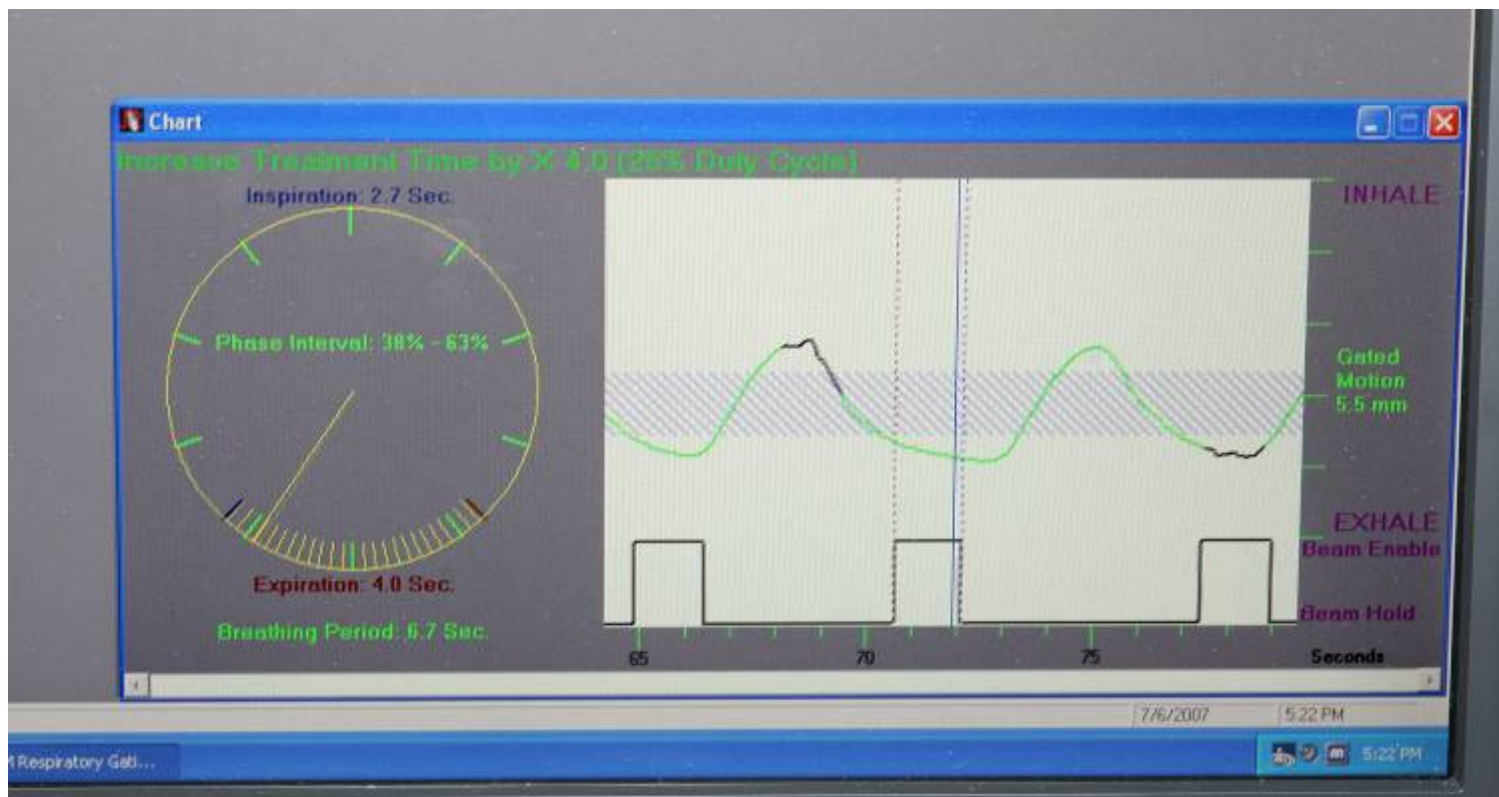


- **Wide Bore Computed Tomography**

- Respiratory Gating readily accounts for any tumor motion related to breathing or organ movement

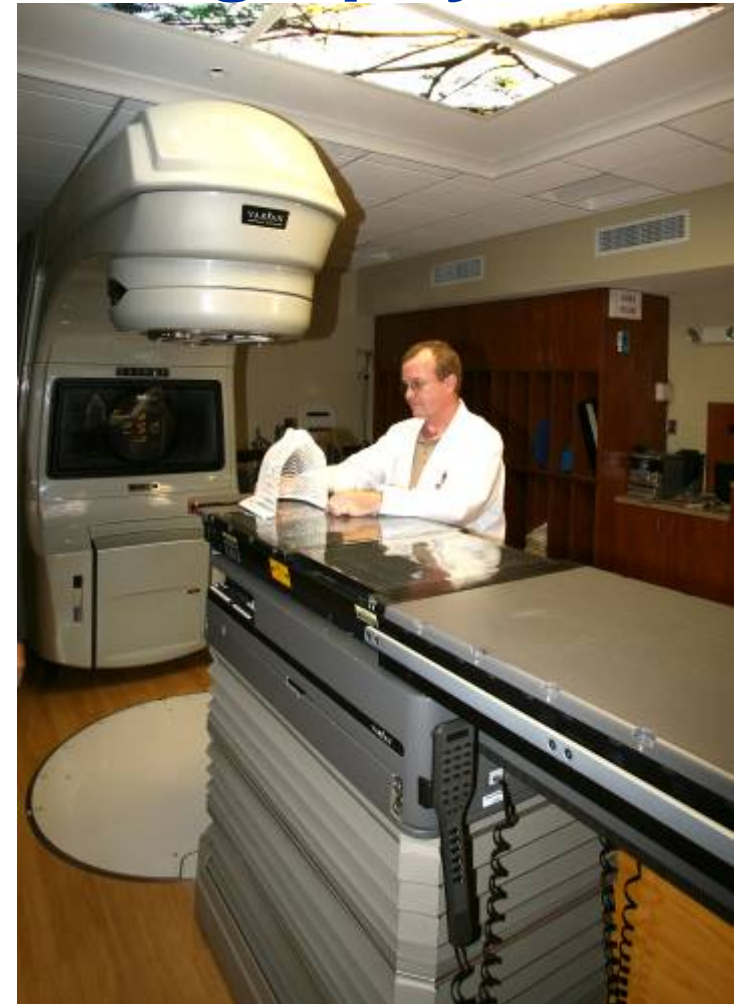


Wide Bore Computed Tomography Respiratory Gating



- **Wide Bore Computed Tomography**

Works with IMRT (Intensity Modulated Radiation Therapy) to focus on eradicating cancerous tissue.



- **High Dose Rate Brachytherapy**
 - Offers patients an innovative form of internal radiation
 - Using catheters, radiation is placed inside a tumor



- **High Dose Rate Brachytherapy**
 - **Maximum radiation dose is delivered where patient needs it most in the shortest amount of time**



- **PET/CT**

- **Next generation of Positron Emission Tomography and Computed Tomography integrates two advanced imaging technologies**



- **PET/CT**

- **This most advanced system of its kind helps doctors detect disease in its early stages and monitor the progress of a patient's treatment.**



- **PET/CT**

- **Integrated anatomical and metabolic images assist doctors in determining whether a suspicious growth is cancerous or benign.**



- **Computer Aided Detection Lung X-ray**
 - FDA-approved CAD system is used with all chest x-rays performed at St. Mary on patients age 30 and older



- **Computer Aided Detection Lung X-ray**
 - CAD is a powerful tool that assist radiologists in finding hard-to-detect early-stage lung cancer



- ***Coming late 2007***
 - ***Image Guided Radiation Therapy***
 - **Couples the most advanced IMRT with integrated real-time CT for advanced planning and delivery of radiation therapy**

