CT Physics and Radiation Dosimetry for Technologists

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Outline

• Radiation Risks
  – BEIR VII
  – No threshold linear model
  – Brenner paper

• CT physics and acquisition parameters

• Methods for estimating patient dosimetry

• CT overexposure incidents and FDA warnings

• Dosimetry summary for DFCI CT procedures
  – Siemens Quad Zoom CT
  – Toshiba 64-slice Acquilion CT
  – Siemens Biograph-16 and GE Discovery ST-16 PET/CT