

Saving Our Pediatric Patients

Modality Choices:

X-Ray, CT, and Radiation Therapy:

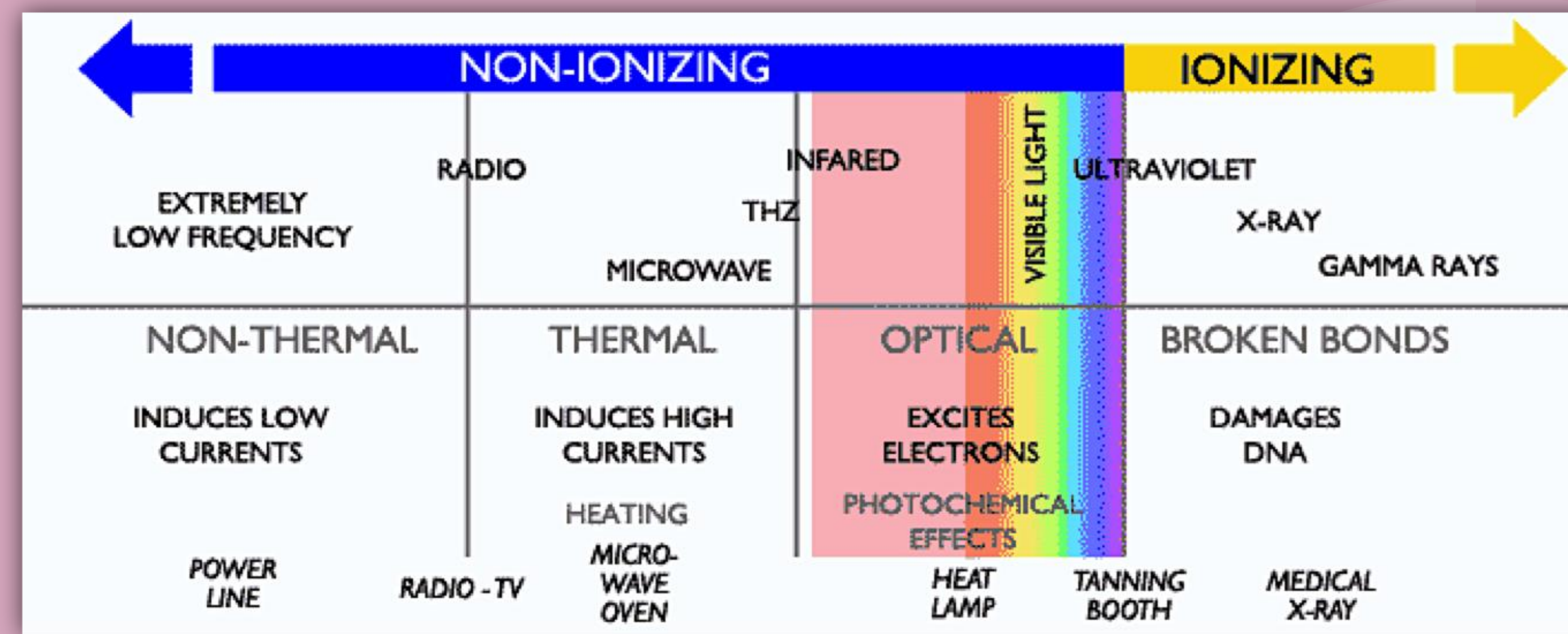
. Use ionizing radiation to obtain images. x-ray and CT use lead shields to help protect the patient, whereas radiation therapy is a therapeutic approach

Ultrasound and MRI:

. Best choices for pediatric patients dependant upon what physician is looking for, due to no ionizing radiation exposure to the patient
 . Uses radio waves in ultrasound and radio waves and a magnet in MRI

Nuclear Medicine:

. Uses radioactive isotopes to obtain images of the body in one viewable plane in a diagnostic manner



Diez, M. G. (2014, April 24). Non-Ionizing Radiation. Applications in Medicine [Digital image]. Retrieved December 05, 2017, from <http://www.radiologyandphysicalmedicine.es/non-ionizing-radiation-applications-in-medicine/>

Pediatric patients are more susceptible to radiation due to their continual growth



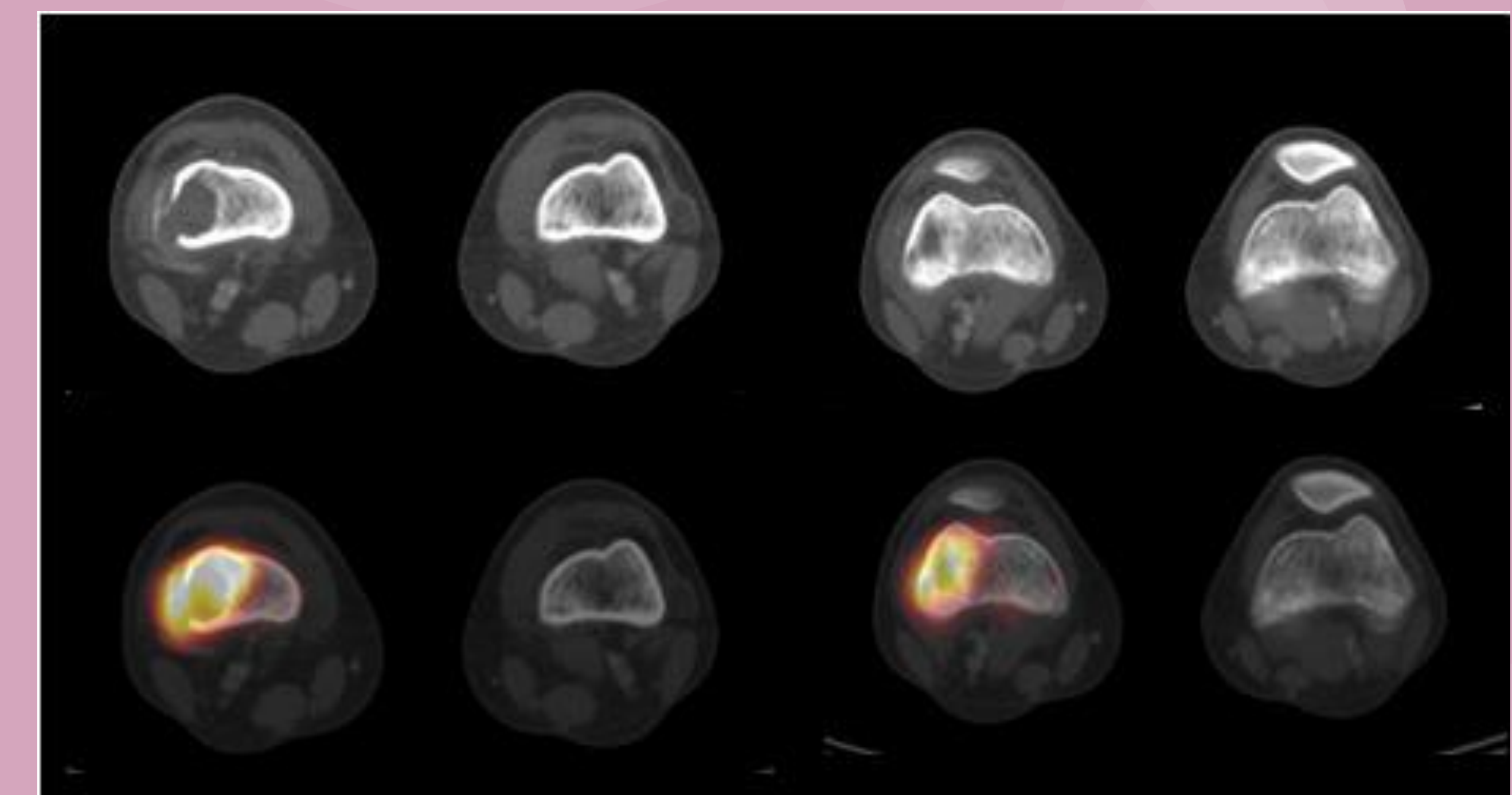
P. (n.d.). Pediatric Lead Shields Ped Pals [Digital image]. Retrieved December 05, 2017, from <http://pjxray.com/pediatric-accessories/ped-pals-pediatric-shields.html>

Lead shields and technical factors are factors that help to protect patients from unnecessary radiation exposure

Sherer, M. A. S., Visconti, P. J., Ritenour, E. R. (2006). *Radiation protection in medical radiography*. St. Louis, MO: Mosby Inc.

CT scanners need to be appropriately customized to the specific technical factors to treat pediatric patients

Ionizing radiation is defined as radiation that produces both positively and negatively charged particles when passing through matter.



Nadel, H. (n.d.). Childhood Cancer Case Study 01 [Digital image]. Retrieved December 05, 2017, from http://www.petscaninfo.com/zportal/portals/phys/pediatric_imaging/case01

Nuclear Medicine helps identify diseases in a functional way in their earliest stages