



# How to Keep Up with Ever Changing Technology - What Works Best and What Resources are Available

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## *Being Proactive*

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Responsible for  
keeping up with the  
worlds ever changing  
technology





What do  
I need to  
do my  
job?



How do  
I  
keep up  
with  
technology?









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Your vendor and what they can offer

Online information

Working with your radiologist and physicist

Knowing your scanner





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Very important component to understanding your CT scanner

Can be an overwhelming process if too many people are involved

Time for intense, valuable learning





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Small number of technologists to  
participate

*Minimizes confusion*

Responsible for training other  
staff





Applications  
specialists share  
checklists and other  
training materials to  
help train additional  
staff



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Allow normal patient  
schedule to operate on  
other scanners if  
possible





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Educational connection  
to your scanner

Contact information for  
any questions you  
have regarding this  
equipment

There is NEVER a  
dumb question





Your applications  
specialist is there  
to help YOU.  
This is their job.  
Use these people  
to your  
advantage!





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Direct line to other  
product specialist  
to answer  
questions





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Vendors also offer education to their customers.  
Often this is **FREE!**





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1. GE-Tips TV-

[http://www.gehealthcare.com/user/education/sat\\_edu/products/tiptvondemand.html](http://www.gehealthcare.com/user/education/sat_edu/products/tiptvondemand.html)

2. Siemens Medical Academy-

<https://www.learnatsiemens.com/Saba/Web/MEDEXT>



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3. Phillips-

<http://www.theonlinelearningcenter.com>

4. Toshiba-

<http://medical.toshiba.com/education/center/ct.php>



Off site training to  
their customers  
through conferences  
or workshops



Often it is included in your  
purchasing contract



Staff have the  
opportunity to  
learn in a  
different  
environment  
which can also  
be a great morale  
booster



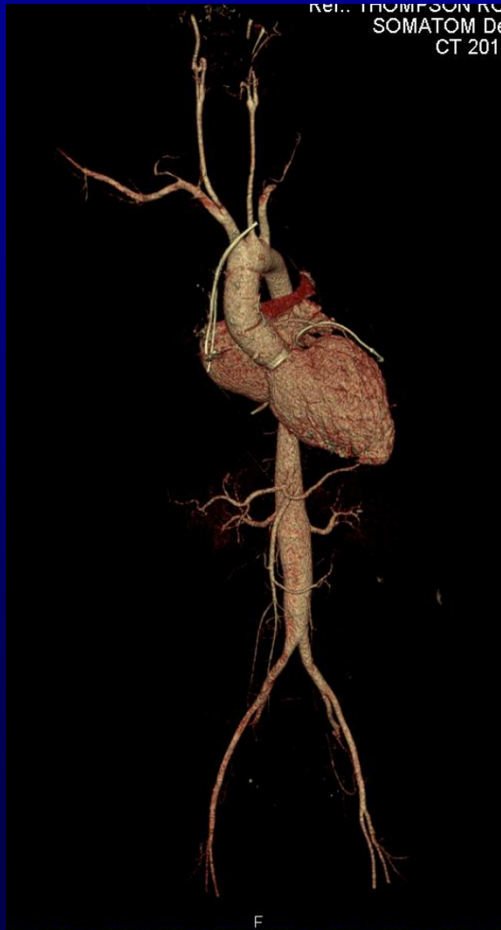
Learning through  
their experienced  
customers in the  
clinical setting





Online learning





Great tool for staff

Keep up with technology



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Surprising how  
many places to go  
online for radiology  
information and  
continuing  
education





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There are web sites-





# Auntminnie.com

The screenshot shows the AuntMinnie.com website. At the top left is the AuntMinnie logo, a cartoon character with glasses. Next to it is the text "AuntMinnie.com" and "Imaging *Decisions* Start Here™". To the right is a search bar with a "SEARCH" button and a dropdown menu showing "All AuntMinnie". Below the logo is a navigation bar with links: HOME, BUYER'S GUIDE, CAREER CENTER, REFERENCE, MARKETPLACE, EDUCATION, CONFERENCES, LINKS, COMMUNITIES, FORUMS, WEBINARS. Below this is a secondary navigation bar with links: Sign in, Register for Free!, Newsletters. The main content area features several banners: "AuntMinnieEurope Get European radiology news now!", a Siemens banner for "SOMATOM Sessions Online NOW!" with a "Visit Website" button, and an "imagine Ingenuity" banner. Below the banners is a "Radiology News" section with a headline "CORE 64: Calcium impedes per-segment diagnosis at CCTA" dated September 26, 2011. To the right of the news section are two boxes: "NEWS IN BRIEF" with a link "Clinical informatics gets board-certified" and "CASE OF THE DAY(SM)" with a "SPONSORED BY: PHILIPS" logo.

**AuntMinnie.com**  
Imaging *Decisions* Start Here™

HOME | BUYER'S GUIDE | CAREER CENTER | REFERENCE | MARKETPLACE | EDUCATION | CONFERENCES | LINKS | COMMUNITIES | FORUMS | WEBINARS

Sign in | Register for Free! | Newsletters

**AuntMinnieEurope**  
Get European radiology news now!

**SIEMENS**  
SOMATOM Sessions Online NOW! [Visit Website](#)

**imagine**  
Ingenuity

**Radiology News**

**CORE 64: Calcium impedes per-segment diagnosis at CCTA**  
September 26, 2011 -- Does the presence of heavy calcification hinder diagnosis with coronary CT angiography (CCTA)? It surely does, and the more calcium per segment, the greater the inaccuracy, concludes a study in the October issue of *Radiology* that analyzed

**NEWS IN BRIEF**  
[Clinical informatics gets board-certified](#)

**CASE OF THE DAY(SM)**  
SPONSORED BY:  
**PHILIPS**



# MDLinx.com

**18F-FDG PET/CT as a staging procedure in primary stage II and III breast cancer: comparison with conventional imaging techniques**

★ **MDLinx Radiology** newsletter@newstwo.mdlinx.com to me [show details](#) 8:56 AM (59 minutes ago) [Reply](#)

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Quality Healthcare Jobs

Sponsor

**MDLinx Radiology**  
5 minutes a day to stay current

Newsletter  
Monday, Sep 26, 2011

**THIS ISSUE:** Messages | Articles | Now in Full Text | Top Read Articles This Month | Jobs | Topics in Radiology

[>> New Cat 2 CME Recorder](#) [>> 45 new jobs in the Career Center](#)

**New!** Get reports via email to claim your reading activity at MDLinx as Category 2 CME (It takes less than a minute)

**Cat 2 CME Recorder** Click here to receive your activity report via email

**Messages**

**Find Healthcare Jobs FREE**  
Click here to sign up



# MDCT.net





*xrayrisks.com*

The screenshot shows the homepage of xrayrisks.com. At the top left is the logo, which consists of a blue diamond shape with white curved lines inside, followed by the text "X-RAY RISK" in a bold, sans-serif font, with "xrayrisks.com" in a smaller font below it. Underneath the logo is the tagline "Promoting responsible imaging through patient and provider education". To the right of the logo, there is a section titled "FAQ of the Month" with a question mark icon and the text "Do cell phones cause cancer?". Below this, it says "NOW AVAILABLE" and "FREE DOWNLOAD: Patient Radiation Handout" with a small icon of a document. In the top right corner, there is a "Login" button. A horizontal navigation bar contains links for "home", "about", "faq's", "calculate your risk", "glossary", and "contact". The main content area features a quote from the National Institutes of Health: "Radiation can be used for great benefit to humanity and with minimal risk, a risk comparable to or lower than those commonly accepted as an ordinary part of daily life such as driving to work." Below the quote is the text "National Institutes of Health. Radiation Fact Sheet, April 2000". At the bottom left of the main content area, there is a button that says "CALCULATE YOUR RISK" and "Print an Individual Report". On the right side of the main content area, there is a large X-ray image of a human shoulder and upper arm.

**X-RAY RISK**  
xrayrisks.com  
Promoting responsible imaging  
through patient and provider education

FAQ of the Month  
? Do cell phones cause cancer?  
NOW AVAILABLE  
FREE DOWNLOAD: Patient Radiation Handout

Login

home about faq's calculate your risk glossary contact

"Radiation can be used for great benefit to humanity and with minimal risk, a risk comparable to or lower than those commonly accepted as an ordinary part of daily life such as driving to work."  
National Institutes of Health.  
Radiation Fact Sheet, April 2000

**CALCULATE YOUR RISK**  
Print an Individual Report



# Image Gently

Home :: Campaign Overview :: The Alliance :: Conferences :: Contact





image gently<sup>SM</sup>

The Alliance for Radiation Safety in Pediatric Imaging



Tests/Procedures


What Can I Do?

Resources


FAQ

International Resources

Let's *image gently* when we care for kids! The *image gently* Campaign is an initiative of the Alliance for Radiation Safety in Pediatric Imaging. The campaign goal is to change practice by increasing awareness of the opportunities to lower radiation dose in the imaging of children.




**Pledge in Spanish**  
For adult radiation protection resources visit:



**IMAGE WISELY<sup>SM</sup>**  
Radiation Safety in Adult Medical Imaging

**PUBLIC SERVICE ANNOUNCEMENT  
FEATURES IMAGE GENTLY!**







There are online  
journals-



## Applied Radiology

**APPLIED RADIOLOGY**

Reliable documentation can aid clinical decisions and improve department performance. [Learn More & View Videos](#)

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### FEATURED ARTICLE

#### MR of articular cartilage lesions of the knee

Connie Y. Chang, MD, and Ambrose J. Huang, MD, Massachusetts General Hospital, Boston, MA

Osteoarthritis is a highly prevalent disease in the United States population, with approximately 75% of persons over age 65 having radiographic evidence of degenerative changes, and nearly two-thirds of routine knee magnetic resonance imaging (MRI) demonstrating articular cartilage damage.<sup>1</sup> Therefore, careful evaluation of the articular cartilage is an important part of the knee MRI examination.

[Read More](#) →




### FEATURED QUIZ

What is the etiology of the lesion?

[View Quiz](#) →

Sponsored By **SIEMENS**



### CURRENT ISSUE

### TECH TRENDS

Apps mobilize radiology

Breast screening's trade-offs

Top technologies at RSNA 2010 drive personalized



### FEATURED CASE

Localized splenic malignant mesothelioma

[View Case](#) →

Sponsored By



### WET READ By Doug Phillips, MD

Monthly insights and commentary from C Douglas Phillips, MD, Weill-Cornell Medical College/New York-Presbyterian Hospital, New York, NY. Dr. Phillips is also a member of the editorial board of this journal.

Cynical critical results

### CASE REVIEWS

2-year-old boy with yellowish discoloration of the right eyelid

[View Case](#) →

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### READER POLL

### MOST READ



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ASRT-American Society of Radiologic Technologists



ARRT-American Registry of Radiologic Technologists

ACR-American College of Radiology

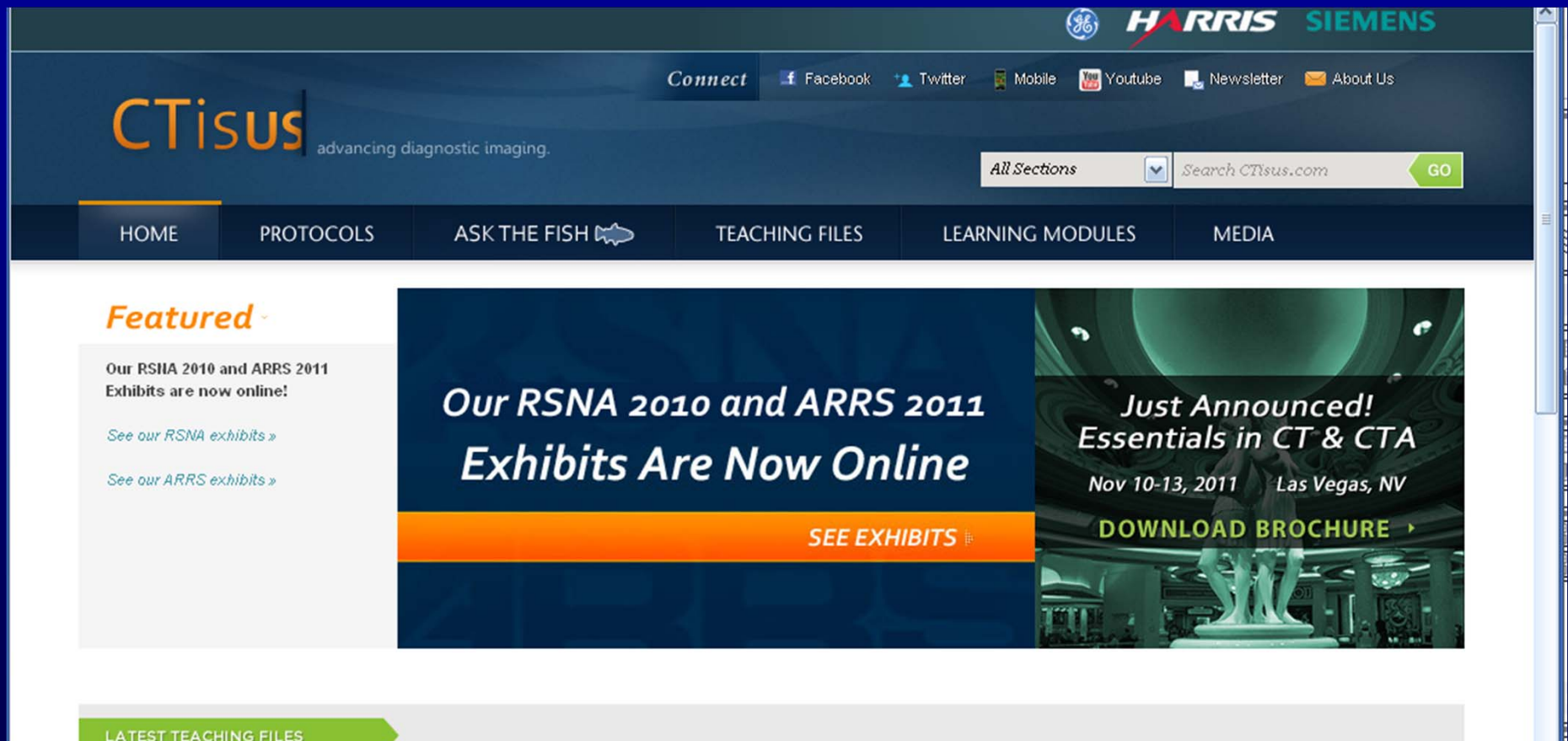


RSNA-Radiologic Society of North America

**And many others!**



# Some Radiologists Offer Information



The screenshot shows the CTisus website homepage. At the top, there are logos for GE, HARRIS, and SIEMENS. Below these is a navigation bar with links for Facebook, Twitter, Mobile, Youtube, Newsletter, and About Us. The main header features the CTisus logo with the tagline "advancing diagnostic imaging." and a search bar. The main navigation menu includes HOME, PROTOCOLS, ASK THE FISH, TEACHING FILES, LEARNING MODULES, and MEDIA. The featured section highlights "Our RSNA 2010 and ARRS 2011 Exhibits are now online!" with links to view the exhibits. A large banner for "Our RSNA 2010 and ARRS 2011 Exhibits Are Now Online" includes a "SEE EXHIBITS" button. To the right, a section titled "Just Announced! Essentials in CT & CTA" for Nov 10-13, 2011 in Las Vegas, NV, includes a "DOWNLOAD BROCHURE" button. The bottom of the page features a "LATEST TEACHING FILES" section.

CTisus advancing diagnostic imaging.

Connect Facebook Twitter Mobile Youtube Newsletter About Us

All Sections Search CTisus.com GO

HOME PROTOCOLS ASK THE FISH TEACHING FILES LEARNING MODULES MEDIA

**Featured**

Our RSNA 2010 and ARRS 2011 Exhibits are now online!

[See our RSNA exhibits »](#)

[See our ARRS exhibits »](#)

**Our RSNA 2010 and ARRS 2011 Exhibits Are Now Online**

[SEE EXHIBITS](#)

**Just Announced! Essentials in CT & CTA**

Nov 10-13, 2011 Las Vegas, NV

[DOWNLOAD BROCHURE](#)

LATEST TEACHING FILES



## Facebook

Image Gently

[https://www.facebook.com/pages/Image-Gently/146714032030578](#)

[Google](#)
[Facebook | Home](#)
[Stock Market News, B...](#)
[Twitter / Home](#)
[KCRW 89.9 FM | Next...](#)
[WHRO | The Public Te...](#)
[The New York Times -...](#)

[facebook](#)

[Robin Brothers](#)
[Home](#)

image gently<sup>SM</sup>

click here to learn more

Wall

Info

Friend Activity

Photos

Discussions

About

One size does not fit all.....

613

like this

Likes

30 Day Song Challenge

**Image Gently**

Cause

**Image Gently**

Open to the general public, members of industry, scientists, policy makers...the Beebe Symposium: Tracking Radiation Exposure from Medical Diagnostic Procedures, upcoming meeting

**Beebe Symposium: Tracking Radiation Exposure from Medical Diagnostic Procedures: Division on Earth a**

dels.nas.edu

Through workshops, symposia, and other meetings (either as part of our studies or as separate activities), the Division serves as a hub for exchange among policy-makers, members of industry, scientists, and the general public to discuss timely issues.

Like · Comment · Share · September 22 at 12:37pm

View 1 share

Write a comment...

**Image Gently**

How does your CT dose measure up?

**DIR Registry**

nrd.acr.org

The Dose Index Registry (DIR) is a data registry that allows facilities to compare their CT dose indices to regional and national values. Information related to dose indices for all CT exams is collected, anonymized, transmitted to the ACR.

**Create a Page**

**Find Friends from Charleston, South Carolina**

97 of your friends live in Charleston, South Carolina. Find more people you know from Charleston, South Carolina.

**Find Friends**

**Birthdays** [See All](#)

**Grant Goldsberry**

It's his birthday.

**Say Happy Birthday**

**Sponsored** [Create an Ad](#)

**Shop Keen at Zappos.com**

zappos.com

Explore the latest selection of Keen shoes at Zappos.com and receive fast free shipping and returns.

**Knorr**

You need Knorr® Homestyle Stock in your life. Click "Like" to become a fan!

**Chat (Offline)**



## Communications Book

method to share information

protocol changes

or helpful hints





# Fun Fact of the Week

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## FUN FACT EXAMPLES

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Runoffs must be  $< 40$  secs!

Use Visipaque on ALL  
diabetic ♥ scans

**Lowest dose you  
have used this  
week? How?  
Please share!**

**Remember  
our weight  
limit—650lbs!**

Lowest cardiac pitch  
(retrospective) = 0.17.  
Highest cardiac pitch  
(flash) = 3.4.

No Calcium  
Scoring on men  
 $< 35$  and women  
 $< 40$ . There is little  
♥ dz in this  
population!





RADIOLOGISTS  
and  
TECHNOLOGISTS  
should work  
together to provide  
excellent  
LOW  
dose imaging



Consult your radiologists  
on protocols and changes

Inviting a radiologist to  
your staff meetings

Great method to learn and  
develop relationships



## Consult your Medical Physicist

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What is  
the DLP?



Provides staff with lectures

Answers technical questions  
and talk to patients with  
questions

Makes radiation physics **FUN**

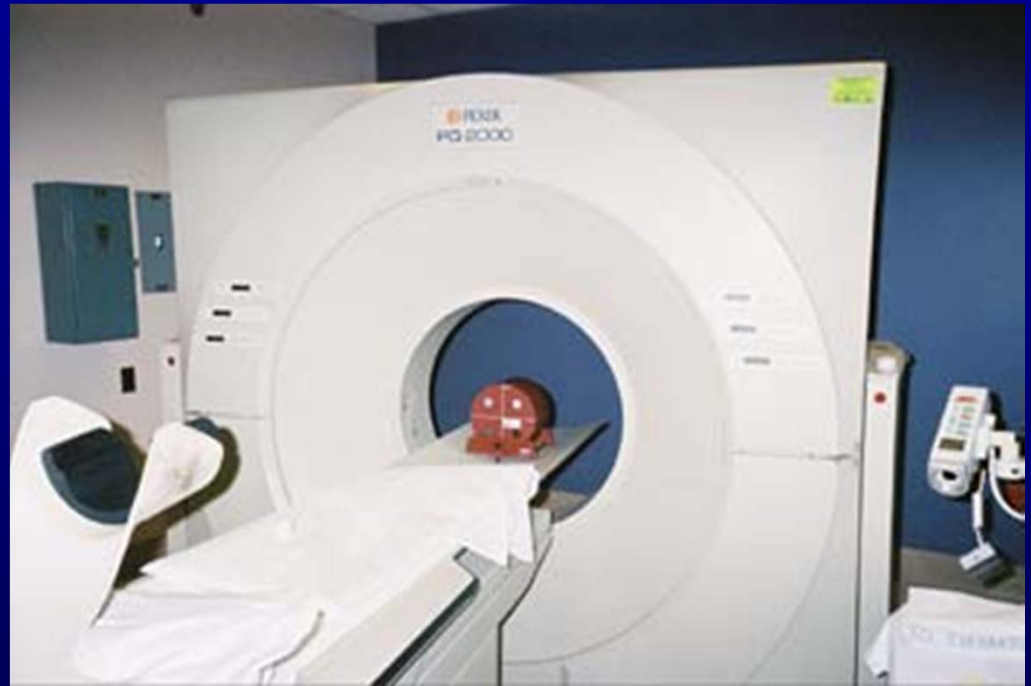


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Scanning phantoms

Better acquainted  
with your scanner

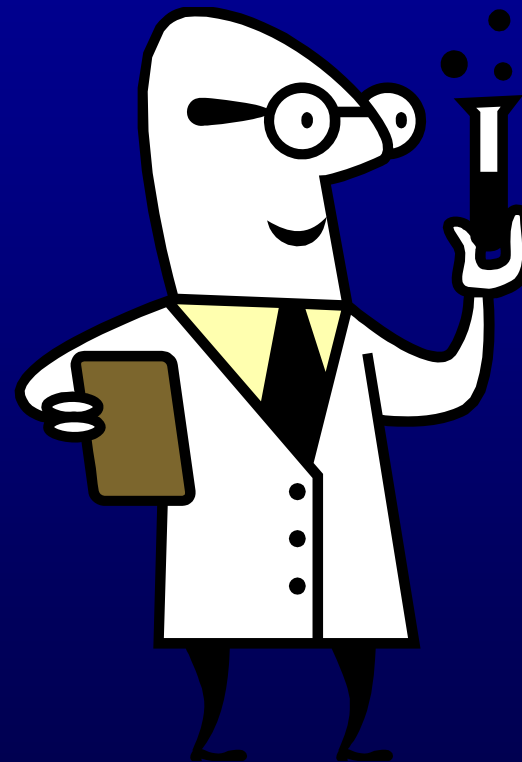
Can **never** know too much





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Be **proactive** in your search for information. With ever changing technology, CT sometimes feels like a huge science experiment!

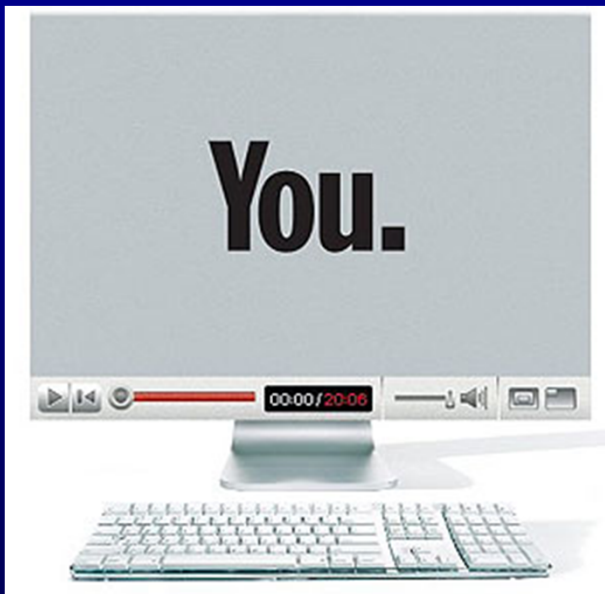




First CT scanner (EMI) in 1973



CT is ever  
evolving



It is your responsibility  
to keep up with the ever  
changing developments  
in our field



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The fun  
with dose  
reduction  
has just begun!  
Hang On!







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# Questions???