

Powerpoint Presentations

How to add color and excitement to your presentations


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Handout Notice


- This presentation contains many highly visual examples of photographs and radiographs to demonstrate the power they add to presentations and documents.
- Handout file size limitations required that these images be deleted from the handout.
- To experience the benefits of electronic presentations, attend the live presentation.

Why Use Powerpoint?

- Scientific, inservice education, marketing, personal (church or volunteer activities)
- Easy to update
- Easy to print handouts and study sheets
- Rehearse and time your presentations
- Output to 35 mm slides, overheads, laptop, computer or projector (great for sports, movies)

- Spell checker
 - Electronic storage of presentations
 - Easy to modify previous ones, duplicate slides from other presentations
 - Digital cameras, scanners, images
 - Customize for individual clients, departments
 - Slide builds, animations, AV clips help take the edge off dry Physics material
 - Professional image
 - If you have fun, it comes across
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Disadvantages of Powerpoint

- Learning another Microsoft Application
 - Potential for "choice" overload
 - When do you quit?
 - Suckered in to buying more
 - Software upgrades
 - Cameras, remote mouse, scanners
 - You will be asked to give more talks, and help others prepare them
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Preparing a Presentation

- New (from scratch) or use templates
- Modifying an existing one
- Organize your presentation
- Don't put too much on a slide
- Use words, images, graphs, tables
- Perhaps AV clips and others
- Avoid excessive glitz

What do you need

- ✓ Hot computer \$ 3,000
- ✓ Microsoft Office 97 229
- ✓ Microsoft Office Pro 97 319
- ✓ Digitizer 500
- ✓ Big Screen Monitor 600
- ✓ Projector 5,000
- ✓ Wireless Mouse 75
- ✓ Digitized photos (Kodak/AOL) \$ 20/roll
- ✓ 35 mm slide hardcopy \$ 8/slide

Digital Cameras

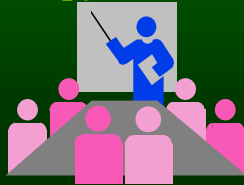
- ✓ Image Size
 - ✓ 640 x 480 - 1000x1280
- ✓ Point and Shoot vs. SLR
- ✓ Optics, Zoom, Macro, Flash
- ✓ Removable storage vs. on-board RAM
- ✓ VGA or SuperVGA Output
- ✓ Video output
- ✓ \$ 500 - 1,200 (6/25/99, 2 PM EDT)
- ✓ Rapid Technology Change
- ✓ Buy for today

- ✓ Image Size
 - ✓ 640 x 480 - 1000 x 1280
- ✓ Size, Weight
- ✓ Travel Case
- ✓ Brightness
- ✓ Security
- ✓ Projection Screen
- ✓ Great for sports, movies
- ✓ Video, computer, audio input
- ✓ Great for live projection demonstrations

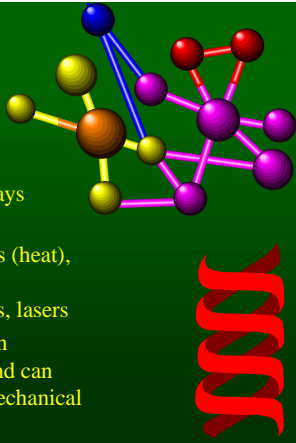
Technical and Regulatory Issues in Radiology:

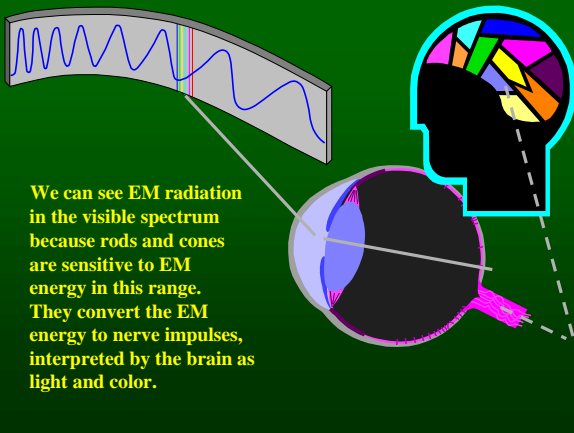
Update on Personnel Dosimetry and Fluoroscopy

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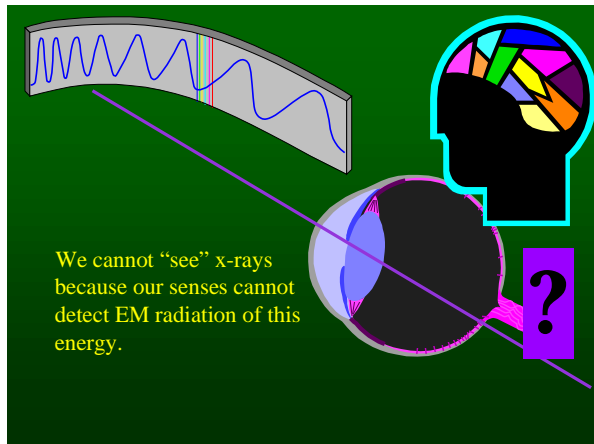


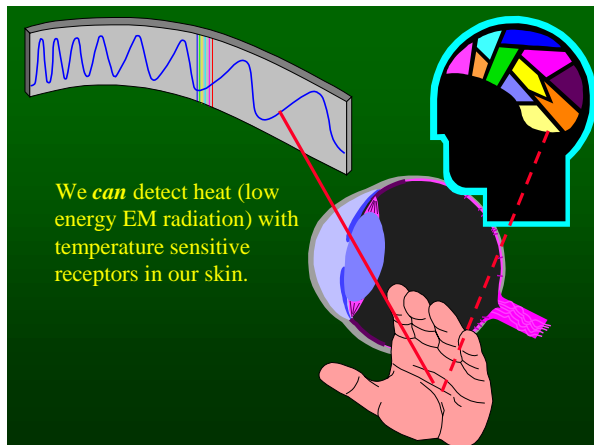
- Ionizing Radiation contains sufficient energy to break chemical bonds, especially those on DNA molecules
Examples: X-rays, gamma rays
- Non-Ionizing Radiation can only produce thermal effects (heat), and cannot alter DNA
Examples: MRI, microwaves, lasers
- Note that ultrasound is not an electromagnetic radiation, and can only produce thermal and mechanical effects





We can see EM radiation in the visible spectrum because rods and cones are sensitive to EM energy in this range. They convert the EM energy to nerve impulses, interpreted by the brain as light and color.





Biologic Effects of Radiation

- **Stochastic**
 - Cancer Induction
 - Genetic Mutations
 - Effects on the Embryo-Fetus
- **Non-stochastic**
 - cataracts (~400,000 mrad cumulative)
 - skin erythema (~200,000 mrad single dose)
- **Radiation Research**
 - Japanese A-Bomb Survivors
 - The Mega-Mouse Project
 - Post-partum mastitis
 - Chernobyl

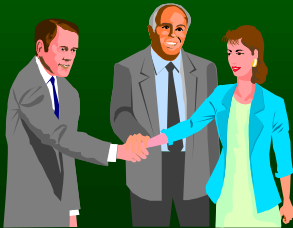
“One in a Million” Risks

- Being a 60 year old male for 20 minutes
- Living in New York City for 2 days
- Riding 6 miles on a bicycle
- Driving 300 miles in a car
- Flying 1,000 miles in an airplane
- Working 10 days in a factory
- Smoking 1.4 cigarettes



Facility:		Community Hospital		Date of Survey:		8/1/97		Survey Instrument:		Victoreen 450P		Calibration Date:		3/26/97	
Room / Tube ID:		Cardiac Catheterization Laboratory		Phantom Used:		Water		Calibration Source:		Cs-137					
Machine Settings															
Measurement Location	Barrier Type	Tube Orientation	Tube Size	mAs	Instruments	Corrected Rate	(W)	(U)	(T)	Exposure	Comments				
A - eyes	Shield	Position 1	88	33	3.2	1.93	0.002	500	1	1	0.49	Cardiologist's Position			
A - waist	Shield	Position 1	88	33	3.2	4.1	0.003	500	1	1	1.04				
A - waist	None	Position 1	88	33	3.2		0.000					Illustration only			
A - below waist	None	Position 1	88	33	3.2	0.82	0.001	500	1	1	0.21				
B - Foot	None	Position 1	88	33	3.2		0.000								
C - 1 m	None	Position 1	88	33	3.2		0.000								
D - Head	None	Position 1	88	33	3.2		0.000								
E - 1 m	None	Position 1	88	33	3.2		0.000								
F - Hanging Station	Shield	Position 1	88	33	3.2	2.5	0.002	500	1	1	0.63				
C-Arm Position 5 : LAO Caudal - Cranial															
Diagram															
C-Arm Rotation (degrees)		C-Arm Angulation (degrees)													
40		35													

St. Francis Hospital & MC

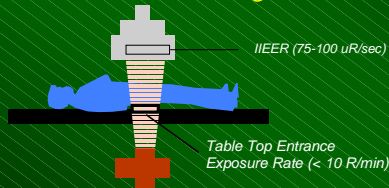


Paul Hennessey,
Rad Safety Technol.
X45584

Bob Drinkwater,
Nuc Med Supervisor
x44908

Image Intensifier Entrance Exposure Rate (IIEER)

- Measured before intensifier, after grid
- 75 - 100 $\mu\text{R}/\text{Sec}$
- Determines the noise of the image



Measured Data

Typical (1.5" Al)

9" Field	Typical (1.5" Al)		Max (1/8" Pb)	
	TTEER	IIEER	TTEER	IIEER
RM 1	2.5	60	7.6	N/A
RM 3	0.8	20	8.3	N/A
Norm	4.4*	25**	6.7*	N/A

TTEER (R/min)

IIEER ($\mu\text{R}/\text{sec}$)

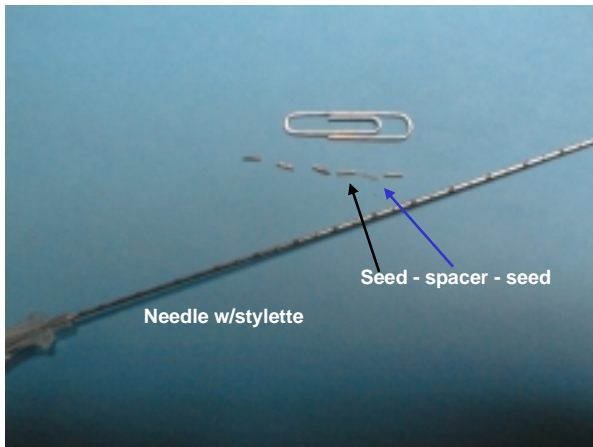
* NEXT 91

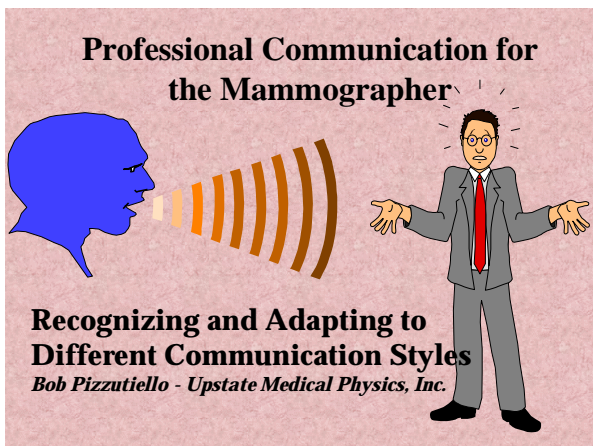
** R. Moore '90

Table 5: Breast MRI morphologic and extent classification compared with mammography

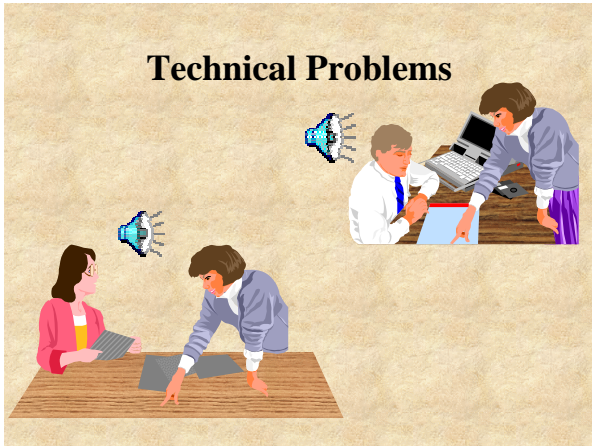
Statistic	MRI	Mammography
True positives	63	20
False positives	3	2
True negatives	6	1
False negatives	6	27
Sensitivity	94%(68/68+6)	42%(20/20+27)
Specificity	66%(6/6+3)	33%(1/1+2)
Accuracy	90%(68+6/82)	42%(20+1/50)







Technical Problems



Resources

Presentations Magazine
(www.Presentations.com)

B& H Catalog



Sistrom C, Gay SB.
Computers in Radiology. *AJR*
1998; 170: 279-284
