

# U.S. Radiologic Technologists Study Fourth Survey

*A collaborative effort between the University of Minnesota School of Public Health, National Cancer Institute,  
and American Registry of Radiologic Technologists*

## FLUOROSCOPICALLY-GUIDED INTERVENTIONAL MODULE

**INSTRUCTIONS:**

- USE BLUE OR BLACK INK
- PRINT LEGIBLE NUMBERS AND CAPITAL BLOCK LETTERS IN THE BOXES:

1	2	3	A	B	C	D
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- MARK CHECK BOXES:    RIGHT    WRONG

**PRIVACY ACT NOTIFICATION STATEMENT**  
 Collection of this information is authorized by The Public Health Service Act, Section 411 (42 USC 285a). Rights of study participants are protected by The Privacy Act of 1974. Please be assured that all information you provide will be kept private under the Privacy Act and will not be disclosed to anyone but the researchers conducting this study, except as otherwise required by law. Any published results from this survey will be reported in statistical summaries only and will never include a participant's name. Your participation in this study is completely voluntary and failure to answer any particular question or the information collection as a whole will not affect your future contacts with the University of Minnesota, the American Registry of Radiologic Technologists, or the National Institutes of Health.

**Please fill out this module if you have ever performed fluoroscopically-guided interventional procedures REGULARLY (that is, at least once a month for a year or more).**

**1. What year did you begin performing fluoroscopically-guided interventional procedures REGULARLY?**

				FIRST YEAR
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**2. What year did you last performing fluoroscopically-guided interventional procedures REGULARLY?**

				LAST YEAR
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**CONTINUE** 

**NOTIFICATION TO RESPONDENT OF ESTIMATED BURDEN**

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: NIH, Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0405). Do not return the completed form to this address.

**Attachment 1C**

Number of Years			
1965-1979	1980-1989	1990-1999	2000-2009
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3. Within each time period shown, how many YEARS did you regularly perform FLUOROSCOPICALLY-GUIDED INTERVENTIONAL procedures?

4. For the following fluoroscopically-guided interventional procedures, please provide your best estimate of HOW MANY TIMES PER MONTH you performed these procedures during each time period and what PERCENT TIME YOU SCRUBBED to perform these procedures under sterile conditions. Please provide estimates for the overall procedure group (e.g. all cardiac procedures) and also for the selected individual procedures within each group.

NOTE: If you mark “never done” or “less than once in 6 months,” leave the rest of the columns blank for that procedure.

FLUOROSCOPICALLY-GUIDED INTERVENTIONAL PROCEDURE	Never done	Less than once in 6 months	On average, how many times per calendar month did you perform these procedures in this time period and what percentage of the time were you scrubbed?							
			1965-1979		1980-1989		1990-1999		2000-2009	
			# times	% time scrubbed	# times	% time scrubbed	# times	% time scrubbed	# times	% time scrubbed
<b>All CARDIAC procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Diagnostic catheterizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Percutaneous coronary interventions (PCI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Electrophysiology (EP) diagnostic studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Electrophysiology (EP) ablations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Pacemaker or intracardiac defibrillator implantations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>All UROLOGIC procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Percutaneous nephrolithotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Nephrostomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>All ORTHOPEDIC procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vertebroplasty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Orthopedic extremity nailing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>All HEAD AND NECK procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Endovascular therapeutic procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Attachment 1C**

FLUOROSCOPICALLY-GUIDED INTERVENTIONAL PROCEDURE, cont.	Never done	Less than once in 6 months	On average, how many times per calendar month did you perform these procedures in this time period and what percentage of the time were you scrubbed?							
			1965-1979		1980-1989		1990-1999		2000-2009	
			# times	% time scrubbed	# times	% time scrubbed	# times	% time scrubbed	# times	% time scrubbed
<b>All GASTROINTESTINAL procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Biliary tract procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Transjugular intrahepatic portosystemic shunts (TIPS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Endoscopic retrograde cholangiopancreatography (ERCP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>All EMBOLIZATION procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fibroids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Liver tumor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other tumor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bleeding (any site)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>OTHER procedures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Port placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Peripherally inserted central catheter (PICC) placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Inferior Vena Cava (IVC) filter placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Aortic stent grafts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Dialysis interventions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Peripheral vascular interventions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4. The following questions are about protective measures that you used when you performed FLUOROSCOPICALLY-GUIDED INTERVENTIONAL procedures.

PROTECTIVE MEASURES	What PERCENTAGE OF THE TIME did you use these protective measures during each time period?			
	1965-1979	1980-1989	1990-1999	2000-2009
<b>Leaded gloves</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Lead apron</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Thyroid shield</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Lead glasses</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Ceiling suspended shield</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Mobile floor shield</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Table mount shield</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100

5. The following questions are about film or other radiation monitoring badges that you wore when you performed FLUOROSCOPICALLY-GUIDED INTERVENTIONAL procedures. The term 'lead' refers to lead or lead-equivalent.

MONITORING BADGES	How many radiation monitoring badges did you usually wear during each time period?			
	1965-1979	1980-1989	1990-1999	2000-2009
<b>Number of badges worn</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Zero <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Zero <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Zero <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

TYPE AND PLACEMENT OF BADGE	What PERCENTAGE OF THE TIME did you use this type of radiation monitoring badge during each time period?			
	1965-1979	1980-1989	1990-1999	2000-2009
<b>Badge at neck</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Did you usually wear the badge under lead?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
<b>Badge at waist</b>	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100	<input type="checkbox"/> Zero <input type="checkbox"/> 1-25% <input type="checkbox"/> 25-74 <input type="checkbox"/> 75-99 <input type="checkbox"/> 100
<b>Did you usually wear the badge under lead?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes