



**U.S. Radiologic Technologists Study**

**THIRD SURVEY**

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

**CONFIDENTIALITY:**

Please be assured that all information you provide will be kept confidential 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.

**OFFICE USE ONLY**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A	B	C	D	E
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	G	H	I	J



**INSTRUCTIONS:**

You may use a blue or black pen when completing this form. Please return completed questionnaire in the postage-paid envelope provided.

Please answer each question to the best of your recollection. Even if you are unable to recall answers exactly, your best estimates will help us better understand exposure levels during different time periods.

**MARKING INSTRUCTIONS**

**RIGHT**



**WRONG**



Please use blue or black pen.

**PARTICIPANT INFORMATION**

1. What is today's date?

-   -

2. Are you male or female?

Male

Female

3. What is your date of birth?

-   -

**MEDICAL HISTORY**

The first part of this questionnaire includes questions to update the health information you provided in the last survey.

4. Did a doctor ever tell you that you had any of the following types of **CANCER** or malignant tumors?  
For each type of cancer that you mark YES, please provide the year it was first diagnosed.

Type of Cancer	Yes	Year 1 <sup>st</sup> Diagnosed
Bladder .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Bone .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Type of Cancer	Yes	Year 1 <sup>st</sup> Diagnosed
Brain or nervous system .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Breast .....	<input type="checkbox"/>	
If YES: ↓		
Which Breast? Left Right	What type was it? Invasive Cancer	Ductal Carcinoma In Situ
		Other Or Type Unknown
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Year 1 <sup>st</sup> Diagnosed
		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Cervix (invasive, not <i>in situ</i> ) ..	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Colon .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Connective or other soft tissue .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Esophagus .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Hodgkin's Disease .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Kidney .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Larynx .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Leukemia, Acute Lymphocytic .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Leukemia, Chronic Lymphocytic .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Leukemia, Acute Myeloid .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Leukemia, Chronic Myeloid ...	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Leukemia, other or type unknown .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Liver .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Lung, trachea or bronchus ...	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Lymphoma, Non-Hodgkin's ...	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Lymphoma, other or type unknown .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Melanoma of the Skin .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Melanoma of the Eye .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Type of Cancer	Yes	Year 1 <sup>st</sup> Diagnosed
Melanoma, Other .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Multiple myeloma .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Ovary .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Pancreas.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Pharynx .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Prostate .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Rectum .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Salivary gland.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Skin cancer other than melanoma .....

If YES: ↓

What type?	Yes	Year 1 <sup>st</sup> Diagnosed
Basal cell.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Squamous cell.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other or type unknown.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Stomach .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Testis .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Thyroid .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Uterus (endometrium) .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Any other type of cancer (including unknown types) ...

If YES: ↓

Type: _____	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Type: _____	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

4a. Mark here if you were **never diagnosed** with any cancer .....

5. Did a doctor ever tell you that you had any of the following **BENIGN tumors or other medical conditions**? For each condition you mark YES, please provide the year it was first diagnosed.

Medical Condition	Yes	Year 1 <sup>st</sup> Diagnosed
<b>Benign tumor of the brain or nervous system</b> .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
If YES: what type of tumor?		
<input type="checkbox"/> Meningioma?	<input type="checkbox"/> Other or type unknown. Specify:	
<input type="checkbox"/> Schwannoma?		
<input type="checkbox"/> Acoustic neuroma?		

**Thyroid conditions:**

Benign thyroid tumor (adenoma) .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Thyroid nodule.....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Goiter (enlarged thyroid) ....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Thyroiditis (Hashimoto's Disease) .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Hyperthyroidism (overactive thyroid) .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Hypothyroidism (underactive thyroid) .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Any other thyroid conditions .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Pituitary tumor .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Hyperparathyroidism .....	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

[WOMEN ONLY]	Yes	Year 1 <sup>st</sup> Diagnosed
Uterine fibroids (myoma)? .	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Fibrocystic or other benign breast disease such as fibroadenoma or hyperplasia? .....	<input type="checkbox"/>	
If YES, was it confirmed by breast biopsy or aspiration? .....		
	No <input type="checkbox"/> Yes <input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

5a. Mark here if you were **never diagnosed** with any of the above benign tumors or medical conditions .....

6. Did a doctor ever tell you that you had any of the following **cardiovascular** conditions? For each condition you mark YES, please provide the year it was first diagnosed.

Medical Condition	Yes	Year 1 <sup>st</sup> Diagnosed
High blood pressure .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
If YES, have you ever taken medicine for high blood pressure? .....	No <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>	
Stroke (cerebrovascular accident) .....	Yes <input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
TIA (transient ischemic attack) .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Heart attack, myocardial infarction (MI) .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Angina pectoris .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
If YES, was this confirmed by angiography? .....	No <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>	

6a. Mark here if you were never diagnosed with any of the above cardiovascular conditions ..

7. Did a doctor ever tell you that you had any of the following **eye** conditions? For each condition you mark YES, please provide the year it was first diagnosed.

Medical Condition	Yes	Year 1 <sup>st</sup> Diagnosed
Macular degeneration .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Cataracts .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
If YES, did you have any cataracts removed? .....	No <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>	
Year 1st Removed .....		<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Glaucoma .....	Yes <input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>

7a. Mark here if you were never diagnosed with any of the above eye conditions ..

8. Did a doctor ever tell you that you had **any** of the following medical conditions? For each condition you mark YES, please provide the year it was first diagnosed.

Medical Condition	Yes	Year 1 <sup>st</sup> Diagnosed
Cirrhosis of the liver .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Diabetes .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
If YES, do you currently take insulin for diabetes? ..	No <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>	
Osteoporosis .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Multiple sclerosis .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Parkinson's Disease .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Attention-deficit disorder (with or without hyperactivity) ..	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
If YES, at what age, did you first take Ritalin or other stimulant medication for this condition? .....	Age <input type="text" value=""/> <input type="text" value=""/>	Never Took <input type="text" value=""/>

Systemic Lupus Erythematosus .....	Yes <input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Osteoarthritis .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Rheumatoid arthritis .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>
Scleroderma .....	<input checked="" type="checkbox"/>	<input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/> <input type="text" value="Y"/>

8a. Mark here if you were never diagnosed with any of the above other conditions ..

9. (Without shoes or clothes), about how much did you weigh when you were ...

18-22 years of age .....  POUNDS

in your 30s .....  POUNDS

in your 40s .....  POUNDS

in your 50s .....  POUNDS

currently.....  POUNDS

10. If you gained weight when you were between 40 and 59 years old, where on your body did you mainly tend to add the weight at this time? (SELECT THE ONE BEST ANSWER.)

- Did not gain weight between 40 and 59 years old.
- Around the chest or shoulders
- Around the waist or stomach
- Around the hips or thighs
- Equally all over

## SMOKING HISTORY

11. Do you smoke cigarettes currently?

- Yes → [GO TO 12]
- No

11a. If you smoked in the past, how old were you when you stopped smoking? ...   YEARS

12. How many cigarettes per day do you or did you usually smoke? (SELECT THE ONE BEST ANSWER)

- 1-10
- 11-20
- 21-30
- 31-40
- 41-60
- 61 or more

## PHYSICAL ACTIVITY

The following questions are about recreational or leisure time physical activities during four periods of your life. When answering these questions, do not include physical activity or exercise that is part of a job.

13. On average, about how many hours per week did you participate in strenuous physical activities during each of the four ages listed below? (Leave blank if age group is not applicable to you.)

**Strenuous activity** means something that increases your heart rate and/or causes you to perspire (for example, running, jogging, cross-country skiing, vigorous swimming or bicycling).

Between ages 18-22 .....   HRs/WK      In your 50s .....   HRs/WK  
In your 30s .....   HRs/WK      Currently .....   HRs/WK

14. On average, about how many hours per week did you participate in moderate physical activities during each of the four ages listed below? (Leave blank if age group is not applicable to you.)

**Moderate activity** means something that requires effort but is not exhausting (for example, walking for exercise, easy swimming, bicycling or golfing).

Between ages 18-22 .....   HRs/WK      In your 50s .....   HRs/WK  
In your 30s .....   HRs/WK      Currently .....   HRs/WK

## WORK HISTORY

The next section is about your work experience as a radiologic technologist.

For purposes of this survey, the term "RADIOLOGIC TECHNOLOGIST" will refer to any job in which you performed or assisted with diagnostic or therapeutic radiation procedures in a health care setting. This information will improve our ability to properly estimate radiation dose over time. Because practices and standards in the field changed over time, we are asking about four time periods.

T I M E P E R I O D S			
1950 to 1959	1960 to 1969	1970 to 1979	1980 to the present
<input type="text"/> <input type="text"/> YEARS If ZERO, skip questions 16 to 19 for this time period.	<input type="text"/> <input type="text"/> YEARS If ZERO, skip questions 16 to 19 for this time period.	<input type="text"/> <input type="text"/> YEARS If ZERO, skip questions 16 to 19 for this time period.	<input type="text"/> <input type="text"/> YEARS If ZERO, skip questions 16 to 19 for this time period.

15. How many years did you work as a radiologic technologist during each time period?

Questions 16-19 are about the job you held the longest in each time period when you worked as a radiologic technologist.

T I M E P E R I O D S			
1950 to 1959	1960 to 1969	1970 to 1979	1980 to the present
<p>16. For your <u>longest job</u> in each time period, which of the following best describes the kind of facility you worked in?</p> <p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Physician(s) office or clinic</p> <p><input type="checkbox"/> Dentist's office</p> <p><input type="checkbox"/> Other facility</p>	<p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Physician(s) office or clinic</p> <p><input type="checkbox"/> Dentist's office</p> <p><input type="checkbox"/> Other facility</p>	<p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Physician(s) office or clinic</p> <p><input type="checkbox"/> Dentist's office</p> <p><input type="checkbox"/> Other facility</p>	<p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Physician(s) office or clinic</p> <p><input type="checkbox"/> Dentist's office</p> <p><input type="checkbox"/> Other facility</p>
<p>17. About how many <u>hours per week</u> did you usually work as a radiologic technologist at <u>this longest job</u> during each time period?</p> <p style="text-align: center;"> <input type="text"/> <input type="text"/>            HOURS PER WEEK         </p>	<p style="text-align: center;"> <input type="text"/> <input type="text"/>            HOURS PER WEEK         </p>	<p style="text-align: center;"> <input type="text"/> <input type="text"/>            HOURS PER WEEK         </p>	<p style="text-align: center;"> <input type="text"/> <input type="text"/>            HOURS PER WEEK         </p>
<p>18. Did you ever wear a dosimetry badge while working at <u>this longest job</u> in each time period?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>Go to question 16 for next time period.</p>	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>Go to question 16 for next time period.</p>	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>Go to question 16 for next time period.</p>	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>Go to question 20, page 8.</p>
<p>19. When you wore an apron at <u>this longest job</u> in each time period, did you usually wear the dosimetry badge on the inside or outside of the apron?</p> <p><input type="checkbox"/> inside</p> <p><input type="checkbox"/> outside</p> <p><input type="checkbox"/> never wore apron</p>	<p><input type="checkbox"/> inside</p> <p><input type="checkbox"/> outside</p> <p><input type="checkbox"/> never wore apron</p>	<p><input type="checkbox"/> inside</p> <p><input type="checkbox"/> outside</p> <p><input type="checkbox"/> never wore apron</p>	<p><input type="checkbox"/> inside</p> <p><input type="checkbox"/> outside</p> <p><input type="checkbox"/> never wore apron</p>

20. Did you work as a radiologic technologist between 1950 through 1959?  Yes  
 No → [GO TO 44 ON PAGE 10]

The following questions are about *some types* of radiologic procedures you may have worked or assisted with on the job you held the longest between 1950 and 1959. You don't need to know exact answers. Just choose the answers that best fit your experience.

### ROUTINE DIAGNOSTIC X-RAY

(such as chest x-rays, portable x-rays, mammograms, etc.)

21. How many ROUTINE DIAGNOSTIC X-RAY procedures did you perform or assist with during a typical week at this longest job in the 1950s?
- zero [GO TO 27]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
22. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time were you inside the room?  
 [Inside the room includes standing behind a shield or partial wall open to the patient. Outside means separated from the patient by the room walls and a door.]
- zero [GO TO 27]       25-74%  
 less than 25%       75% or more
23. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
24. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 26]       25-74%  
 less than 25%       75% or more
25. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
26. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of patients being x-rayed did you hold during the procedure?
- zero       10-24%  
 less than 10%       25% or more

### FLUOROSCOPY

(such as angiograms, barium swallows, etc.)

27. How many FLUOROSCOPY procedures did you perform or assist with during a typical week at this longest job in the 1950s?
- zero [GO TO 33]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
28. When performing FLUOROSCOPY procedures, what percentage of the time were you inside the room?
- zero [GO TO 32]       25-74%  
 less than 25%       75% or more
29. When performing FLUOROSCOPY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
30. When performing FLUOROSCOPY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 32]       25-74%  
 less than 25%       75% or more
31. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
32. Excluding set-up time, what percentage of the FLUOROSCOPY procedures that you performed or assisted with were more than 15 minutes long?
- zero       25-49%  
 less than 25%       50% or more



**DIAGNOSTIC RADIOISOTOPE***(such as using I-131 or technecium-99M, etc.)*

33. How many **DIAGNOSTIC RADIOISOTOPE** procedures (injections or oral procedures) did you perform or assist with during a typical week at this longest job in the 1950s?
- zero [GO TO 38]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
34. When working with **DIAGNOSTIC RADIOISOTOPES**, how many times did you prepare the radiopharmaceutical kit and/or elute generators (i.e., separate and measure a concentrated amount of isotope from its source for use in a radiopharmaceutical kit) during a typical week at this longest job?
- zero       25-49 per week  
 1-9 per week       50+ per week  
 10-24 per week
35. When performing injections, or administrations, was the isotope usually shielded?
- Yes       No
36. During the duration of a procedure, how far from the patient were you usually standing?
- less than 3 feet       3-9 feet       10 feet or more
37. When performing **DIAGNOSTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more

**INTERNAL THERAPEUTIC RADIOISOTOPES***(such as radium, cesium 137, iridium 192, Cobalt-60 or radioactive iodine, etc.)*

38. How many times did you perform, administer or assist with **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures during a typical week at this longest job in the 1950s?
- zero [GO TO 43]       3 times per week  
 1 time per week       more than 3 times per week  
 2 times per week       week

39. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?

zero       25-74%  
 less than 25%       75% or more

40. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you stand behind a shield or use a protective shield around the radioactive source?

zero       25-74%  
 less than 25%       75% or more

41. What percentage of the time were procedures done using afterloading (that is, when the radioactive source was remotely withdrawn from the safe and introduced into the patient through cables, etc.)?

zero       25-74%  
 less than 25%       75% or more

42. What percentage of the time were you responsible for maintaining the radioisotope sources used for implants in the safe, or transporting them to the patient?

zero       25-74%  
 less than 25%       75% or more

**EXTERNAL RADIATION THERAPY***(such as a betatron, Cobalt-60 teletherapy, Orthovoltage machine or linear accelerator, deep therapy, etc.)*

43. How many **EXTERNAL BEAM THERAPY** procedures did you perform or assist with during a typical week at this longest job in the 1950s?

zero       25-49 per week  
 less than 25 per week       50 or more per week

44. Did you work as a radiologic technologist between 1960 through 1969?  Yes  
 No → [GO TO 68 ON PAGE 12]

The following questions are about *some types* of radiologic procedures you may have worked or assisted with on the job you held the longest between 1960 and 1969. You don't need to know exact answers. Just choose the answers that best fit your experience.

#### ROUTINE DIAGNOSTIC X-RAY

(such as chest x-rays, portable x-rays, mammograms, etc.)

45. How many ROUTINE DIAGNOSTIC X-RAY procedures did you perform or assist with during a typical week at this longest job in the 1960s?
- zero [GO TO 51]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
46. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time were you inside the room?  
 [Inside the room includes standing behind a shield or partial wall open to the patient. Outside means separated from the patient by the room walls and a door.]
- zero [GO TO 51]       25-74%  
 less than 25%       75% or more
47. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
48. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 50]       25-74%  
 less than 25%       75% or more
49. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
50. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of patients being x-rayed did you hold during the procedure?
- zero       10-24%  
 less than 10%       25% or more

#### FLUOROSCOPY

(such as angiograms, barium swallows, etc.)

51. How many FLUOROSCOPY procedures did you perform or assist with during a typical week at this longest job in the 1960s?
- zero [GO TO 57]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
52. When performing FLUOROSCOPY procedures, what percentage of the time were you inside the room?
- zero [GO TO 56]       25-74%  
 less than 25%       75% or more
53. When performing FLUOROSCOPY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
54. When performing FLUOROSCOPY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 56]       25-74%  
 less than 25%       75% or more
55. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
56. Excluding set-up time, what percentage of the FLUOROSCOPY procedures that you performed or assisted with were more than 15 minutes long?
- zero       25-49%  
 less than 25%       50% or more

**DIAGNOSTIC RADIOISOTOPE***(such as using I-131 or technecium-99M, etc.)*

57. How many **DIAGNOSTIC RADIOISOTOPE** procedures (injections or oral procedures) did you perform or assist with during a typical week at this longest job in the 1960s?

- zero [GO TO 62]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week

58. When working with **DIAGNOSTIC RADIOISOTOPES**, how many times did you prepare the radiopharmaceutical kit and/or elute generators (i.e., separate and measure a concentrated amount of isotope from its source for use in a radiopharmaceutical kit) during a typical week at this longest job?

- zero       25-49 per week  
 1-9 per week       50+ per week  
 10-24 per week

59. When performing injections, or administrations, was the isotope usually shielded?

- Yes       No

60. During the duration of a procedure, how far from the patient were you usually standing?

- less than 3 feet       3-9 feet       10 feet or more

61. When performing **DIAGNOSTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?

- zero       25-74%  
 less than 25%       75% or more

**INTERNAL THERAPEUTIC RADIOISOTOPES***(such as radium, cesium 137, iridium 192, Cobalt-60 or radioactive iodine, etc.)*

62. How many times did you perform, administer or assist with **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures during a typical week at this longest job in the 1960s?

- zero [GO TO 67]       3 times per week  
 1 time per week       more than 3 times per week  
 2 times per week       week

63. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?

- zero       25-74%  
 less than 25%       75% or more

64. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you stand behind a shield or use a protective shield around the radioactive source?

- zero       25-74%  
 less than 25%       75% or more

65. What percentage of the time were procedures done using afterloading (that is, when the radioactive source was remotely withdrawn from the safe and introduced into the patient through cables, etc.)?

- zero       25-74%  
 less than 25%       75% or more

66. What percentage of the time were you responsible for maintaining the radioisotope sources used for implants in the safe, or transporting them to the patient?

- zero       25-74%  
 less than 25%       75% or more

**EXTERNAL RADIATION THERAPY***(such as a betatron, Cobalt-60 teletherapy, Orthovoltage machine or linear accelerator, deep therapy, etc.)*

67. How many **EXTERNAL BEAM THERAPY** procedures did you perform or assist with during a typical week at this longest job in the 1960s?

- zero       25-49 per week  
 less than 25 per week       50 or more per week

68. Did you work as a radiologic technologist between 1970 through 1979?  Yes  
 No → [GO TO 92 ON PAGE 14]

The following questions are about *some types* of radiologic procedures you may have worked or assisted with on the job you held the longest between 1970 and 1979. You don't need to know exact answers. Just choose the answers that best fit your experience.

#### ROUTINE DIAGNOSTIC X-RAY

(such as chest x-rays, portable x-rays, mammograms, etc.)

69. How many ROUTINE DIAGNOSTIC X-RAY procedures did you perform or assist with during a typical week at this longest job in the 1970s?
- zero [GO TO 75]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
70. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time were you inside the room?  
 [Inside the room includes standing behind a shield or partial wall open to the patient. Outside means separated from the patient by the room walls and a door.]
- zero [GO TO 75]       25-74%  
 less than 25%       75% or more
71. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
72. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 74]       25-74%  
 less than 25%       75% or more
73. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
74. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of patients being x-rayed did you hold during the procedure?
- zero       10-24%  
 less than 10%       25% or more

#### FLUOROSCOPY

(such as angiograms, barium swallows, etc.)

75. How many FLUOROSCOPY procedures did you perform or assist with during a typical week at this longest job in the 1970s?
- zero [GO TO 81]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
76. When performing FLUOROSCOPY procedures, what percentage of the time were you inside the room?
- zero [GO TO 80]       25-74%  
 less than 25%       75% or more
77. When performing FLUOROSCOPY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
78. When performing FLUOROSCOPY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 80]       25-74%  
 less than 25%       75% or more
79. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
80. Excluding set-up time, what percentage of the FLUOROSCOPY procedures that you performed or assisted with were more than 15 minutes long?
- zero       25-49%  
 less than 25%       50% or more

**DIAGNOSTIC RADIOISOTOPE***(such as using I-131 or technecium-99M, etc.)*

81. How many **DIAGNOSTIC RADIOISOTOPE** procedures (injections or oral procedures) did you perform or assist with during a typical week at this longest job in the 1970s?
- zero [GO TO 86]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
82. When working with **DIAGNOSTIC RADIOISOTOPES**, how many times did you prepare the radiopharmaceutical kit and/or elute generators (i.e., separate and measure a concentrated amount of isotope from its source for use in a radiopharmaceutical kit) during a typical week at this longest job?
- zero       25-49 per week  
 1-9 per week       50+ per week  
 10-24 per week
83. When performing injections, or administrations, was the isotope usually shielded?
- Yes       No
84. During the duration of a procedure, how far from the patient were you usually standing?
- less than 3 feet       3-9 feet       10 feet or more
85. When performing **DIAGNOSTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more

**INTERNAL THERAPEUTIC RADIOISOTOPES***(such as radium, cesium 137, iridium 192, Cobalt-60 or radioactive iodine, etc.)*

86. How many times did you perform, administer or assist with **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures during a typical week at this longest job in the 1970s?
- zero [GO TO 91]       3 times per week  
 1 time per week       more than 3 times per week  
 2 times per week       week

87. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?

zero       25-74%  
 less than 25%       75% or more

88. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you stand behind a shield or use a protective shield around the radioactive source?

zero       25-74%  
 less than 25%       75% or more

89. What percentage of the time were procedures done using afterloading (that is, when the radioactive source was remotely withdrawn from the safe and introduced into the patient through cables, etc.)?

zero       25-74%  
 less than 25%       75% or more

90. What percentage of the time were you responsible for maintaining the radioisotope sources used for implants in the safe, or transporting them to the patient?

zero       25-74%  
 less than 25%       75% or more

**EXTERNAL RADIATION THERAPY***(such as a betatron, Cobalt-60 teletherapy, Orthovoltage machine or linear accelerator, deep therapy, etc.)*

91. How many **EXTERNAL BEAM THERAPY** procedures did you perform or assist with during a typical week at this longest job in the 1970s?

zero       25-49 per week  
 less than 25 per week       50 or more per week

92. Did you work as a radiologic technologist after 1980 through the present?  Yes  
 No → [GO TO 116 ON PAGE 16]

The following questions are about *some types* of radiologic procedures you may have worked or assisted with on the job you held the longest from 1980 through the present. You don't need to know exact answers. Just choose the answers that best fit your experience.

### ROUTINE DIAGNOSTIC X-RAY

(such as chest x-rays, portable x-rays, mammograms, etc.)

93. How many ROUTINE DIAGNOSTIC X-RAY procedures did you perform or assist with during a typical week at this longest job from 1980 to the present?
- zero [GO TO 99]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
94. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time were you inside the room?  
 [Inside the room includes standing behind a shield or partial wall open to the patient. Outside means separated from the patient by the room walls and a door.]
- zero [GO TO 99]       25-74%  
 less than 25%       75% or more
95. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
96. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 98]       25-74%  
 less than 25%       75% or more
97. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
98. When performing ROUTINE DIAGNOSTIC X-RAY procedures, what percentage of patients being x-rayed did you hold during the procedure?
- zero       10-24%  
 less than 10%       25% or more

### FLUOROSCOPY

(such as angiograms, barium swallows, etc.)

99. How many FLUOROSCOPY procedures did you perform or assist with during a typical week at this longest job from 1980 to the present?
- zero [GO TO 105]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
100. When performing FLUOROSCOPY procedures, what percentage of the time were you inside the room?
- zero [GO TO 104]       25-74%  
 less than 25%       75% or more
101. When performing FLUOROSCOPY procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more
102. When performing FLUOROSCOPY procedures, what percentage of the time did you stand behind a screen, shield or other protective enclosure?
- zero [GO TO 104]       25-74%  
 less than 25%       75% or more
103. How high did the screen, shield or other protective enclosure extend?
- above the head  
 up to the shoulders  
 up to the waist
104. Excluding set-up time, what percentage of the FLUOROSCOPY procedures that you performed or assisted with were more than 15 minutes long?
- zero       25-49%  
 less than 25%       50% or more

**DIAGNOSTIC RADIOISOTOPE***(such as using I-131 or technecium-99M, etc.)*

105. How many **DIAGNOSTIC RADIOISOTOPE** procedures (injections or oral procedures) did you perform or assist with during a typical week at this longest job from 1980 to the present?
- zero [GO TO 110]       25-49 per week  
 less than 10 per week       50-99 per week  
 10-24 per week       100 or more per week
106. When working with **DIAGNOSTIC RADIOISOTOPES**, how many times did you prepare the radiopharmaceutical kit and/or elute generators (i.e., separate and measure a concentrated amount of isotope from its source for use in a radiopharmaceutical kit) during a typical week at this longest job?
- zero       25-49 per week  
 1-9 per week       50+ per week  
 10-24 per week
107. When performing injections, or administrations, was the isotope usually shielded?
- Yes       No
108. During the duration of a procedure, how far from the patient were you usually standing?
- less than 3 feet       3-9 feet       10 feet or more
109. When performing **DIAGNOSTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?
- zero       25-74%  
 less than 25%       75% or more

**INTERNAL THERAPEUTIC RADIOISOTOPES***(such as radium, cesium 137, iridium 192, Cobalt-60 or radioactive iodine, etc.)*

110. How many times did you perform, administer or assist with **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures during a typical week at this longest job from 1980 to the present?
- zero [GO TO 115]       3 times per week  
 1 time per week       more than 3 times per week  
 2 times per week       week

111. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you wear a protective apron?

zero       25-74%  
 less than 25%       75% or more

112. When performing **INTERNAL THERAPEUTIC RADIOISOTOPE** procedures, what percentage of the time did you stand behind a shield or use a protective shield around the radioactive source?

zero       25-74%  
 less than 25%       75% or more

113. What percentage of the time were procedures done using afterloading (that is, when the radioactive source was remotely withdrawn from the safe and introduced into the patient through cables, etc.)?

zero       25-74%  
 less than 25%       75% or more

114. What percentage of the time were you responsible for maintaining the radioisotope sources used for implants in the safe, or transporting them to the patient?

zero       25-74%  
 less than 25%       75% or more

**EXTERNAL RADIATION THERAPY***(such as a betatron, Cobalt-60 teletherapy, Orthovoltage machine or linear accelerator, deep therapy, etc.)*

115. How many **EXTERNAL BEAM THERAPY** procedures did you perform or assist with during a typical week at this longest job from 1980 to the present?

zero       25-49 per week  
 less than 25 per week       50 or more per week

## RADIOLOGIC TECHNOLOGIST WORK HISTORY - GENERAL

The following questions pertain to any job you may have held as a radiologic technologist.

116. As a radiologic technologist, were you ever removed from any job because you had exceeded a radiation protection limit?

Yes  No [GO TO 119]



117. If YES, how many times . . . ?

- 1 to 2 times
- 3 or 4 times
- 5 or more times

118. In what year were you first removed from a job for this reason?

YEAR

119. While you worked as a radiologic technologist, was your white blood cell count ever found to be below normal due to your work as a radiologic technologist?

Yes  No [GO TO 122]  
 Never tested [GO TO 122]



120. If YES, how many times . . . ?

- 1 to 2 times
- 3 or 4 times
- 5 or more times

121. In what year were you first told that your white blood cell count was below normal due to your work as a radiologic technologist?

YEAR

122. Did you ever work with radiation in a non-medical job?

Yes  No [GO TO 126]



123. What year did you start?     YR

124. What year did you stop?     YR

125. Briefly describe the type of business and radiation procedures you performed on this job?

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## SUN EXPOSURE

The following questions focus on your complexion and your exposure to the sun.

126. What is the natural color of your eyes?

- Blue
- Green/blue or green/grey
- Hazel (light brown or yellow with blue or green flecks)
- Light brown
- Dark brown
- Other:

127. What was your natural hair color when you were 20 years old . . .

- Blonde
- Red
- Reddish-brown
- Light brown
- Medium brown
- Dark brown
- Black
- Other:

128. Do you have a light, medium or dark complexion?

- Light
- Medium
- Dark
- Other:

129. How would your skin react if you had no tan the first time in summer you were exposed to strong sunlight for 30 minutes without protective sunscreen? Strong sunlight means noontime sunlight on the brightest, clearest day in summer. Would you . . .

- Get a severe sunburn with blisters
- Get a painful sunburn but no blisters
- Get a mild sunburn followed by some suntan
- Become tanned without any sunburn
- No change in skin color

130. After repeated and prolonged exposure to sunlight, would your skin become . . .

- Very brown and deeply tanned
- Moderately tanned
- Lightly tanned
- Not tanned at all

131. Were you ever sunburnt so severely as to cause blisters?

- Yes
- No [GO TO 134]

132. How many times did this happen before age 15?

# of blistering sunburns

133. How many times did this happen from age 15 to the age you are now?

# of blistering sunburns

<p>134. The next questions are about where you lived at different ages and about the amount of time you spent in the sun at those ages. Be sure to include time in the sun on <u>vacations, at work</u> and <u>where you lived</u>. (Leave blank if age group is not applicable to you.)</p> <p>When you were (AGE), where did you live the <u>longest</u>?</p>		<p>135. When you were (this AGE), on <u>weekDAYS in the summer</u> (between the hours of 9AM and 3PM), about how many hours per day did you usually spend in strong sunlight?</p>	<p>136. When you were (this AGE), on <u>weekENDS in the summer</u> (between the hours of 9AM and 3PM), about how many hours per day did you usually spend in strong sunlight?</p>
AGE			
a. Under 13 years old	<div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> CITY  <div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> STATE    COUNTRY (If outside USA)	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs
b. 13 to 19 years old	<div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> CITY  <div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> STATE    COUNTRY (If outside USA)	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs
c. 20 to 39 years old	<div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> CITY  <div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> STATE    COUNTRY (If outside USA)	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs
d. 40 to 64 years old	<div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> CITY  <div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> STATE    COUNTRY (If outside USA)	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs
e. Age 65 to present	<div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> CITY  <div style="border: 1px solid black; display: flex; justify-content: space-between; width: 100%; height: 20px; margin-bottom: 5px;"></div> STATE    COUNTRY (If outside USA)	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs	<input type="checkbox"/> 0 <input type="checkbox"/> less than 1 hr <input type="checkbox"/> 1-2 hrs <input type="checkbox"/> 3-4 hrs <input type="checkbox"/> 5-6 hrs

## GENERAL INFORMATION

The final questions are about you and your spouse or partner's education, marital status and income. We're asking these questions to allow us to compare participants in this study with those in other health studies and because these factors may also affect disease risk.

137. What is the highest level of education you have completed?

- 1-8 years (grade school)
- 9-12 years (high school)
- 2-year hospital radiologic technology program
- 1-4 years college
- Graduate school
- Other (e.g. vocational)

138. What is your current marital status?

- Never married  Married
- [GO TO 140]**  Living together but not married
- Divorced
- Widowed
- Separated

139. What was the highest level of education your (current/former) spouse or partner completed?

*If you've had more than one spouse or partner, please answer about the one you were with the longest.*

- 1-8 years (grade school)
- 9-12 years (high school)
- 2-year hospital radiologic technology program
- 1-4 years college
- Graduate school
- Other (e.g. vocational)

140. Which of the categories below best describes your current total annual household income before taxes? Please include all sources of income for all members of your household.

- Less than \$25,000
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000 or more

141. In case we need to contact you, please provide your daytime and/or evening telephone number.

Daytime number:

-    -

Area code

Phone number

Evening number:

-    -

Area code

Phone number

142. Would you be willing to answer a future questionnaire over the internet using a secure website?

- Yes
- No, not willing
- No, do not have access to internet

**Thank you for taking the time to complete this questionnaire.**

If you would like to provide additional comments, please use the back of the survey.



**We regret that we are unable to respond to individual questions at this time. If you have questions or concerns about your health, we encourage you to discuss these matters with your personal physician. We welcome your comments about the survey as this information may help us plan for the study in the future.**

**Do you have any comments about this survey?**

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**What would you like to see in the future newsletters to participants in this study?**

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