

THYROID  
BOTH SEXES

TABLE 4A. -- Characteristics of persons reported to the Connecticut Tumor Registry with an initial cancer of the thyroid gland, 1935-82+

Category	Male	Female	Total
No. with first primary cancer*	603	1,681	2,284
No. who developed a second primary cancer	35	134	169
Average age at diagnosis of first cancer, yr	48	46	46
Average yr of diagnosis of first cancer	1968	1967	1967
Person-yr of follow-up	4,380	15,320	19,700
Average follow-up, yr	7.3	9.1	8.6
Percent given radiotherapy for first cancer	24.7	19.8	21.1

+ ICD-O code = 193.

\* Number excludes all persons who survived less than 2 mo after the diagnosis of their first primary cancer or who developed a simultaneous cancer during this period. First primary cancers diagnosed only at autopsy or by death certificate are also excluded as are in situ cancers.

TABLE 4B. -- Microscopic confirmation among persons who developed second primary cancers after an initial cancer of the thyroid gland in Connecticut, 1935-82

Microscopically confirmed	No.	Percent+
Both first and second cancers	150	88.8
Only the first cancer	14	8.3
Only the second cancer	3	1.8
Neither first nor second cancer	2	1.2
Total second primary cancers	169	100.0

+ Minor discrepancies between table entries, and row and column sums in this and subsequent tables are due to rounding.

THYROID  
BOTH SEXES

TABLE 4C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among males and females in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr			O	E	
No. starting interval	2,284			1,960			1,312			797			2,284		
Person-yr in interval	1,729			6,406			5,125			6,439			19,700		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	24	8.05	3.0*	49	29.63	1.7*	37	27.84	1.3	59	47.66	1.2	169	113.12	1.5*
All excluding site of initial cancer	22	7.96	2.8*	47	29.30	1.6*	36	27.56	1.3	59	47.28	1.2	164	112.06	1.5*
Buccal cavity, pharynx	0	0.25	0.0	3	0.91	3.3	0	0.81	0.0	0	1.28	0.0	3	3.24	0.9
Lip	0	0.03	0.0	1	0.10	9.8	0	0.08	0.0	0	0.10	0.0	1	0.31	3.2
Tongue	0	0.05	0.0	0	0.18	0.0	0	0.16	0.0	0	0.26	0.0	0	0.65	0.0
Salivary gland	0	0.02	0.0	0	0.08	0.0	0	0.07	0.0	0	0.11	0.0	0	0.28	0.0
Gum, other mouth	0	0.08	0.0	1	0.28	3.6	0	0.25	0.0	0	0.42	0.0	1	1.03	1.0
Pharynx	0	0.06	0.0	1	0.23	4.4	0	0.21	0.0	0	0.33	0.0	1	0.83	1.2
Digestive system	3	2.20	1.4	14	7.68	1.8	5	7.08	0.7	17	12.27	1.4	39	29.21	1.3
Esophagus	0	0.09	0.0	0	0.33	0.0	0	0.29	0.0	2	0.46	4.4	2	1.16	1.7
Stomach	0	0.33	0.0	2	1.08	1.8	1	0.91	1.1	0	1.36	0.0	3	3.68	0.8
Colon	1	0.93	1.1	6	3.30	1.8	2	3.14	0.6	10	5.67	1.8	19	13.03	1.5
Rectum	0	0.44	0.0	4	1.59	2.5	0	1.47	0.0	3	2.55	1.2	7	6.05	1.2
Liver, biliary	0	0.13	0.0	0	0.45	0.0	0	0.41	0.0	1	0.69	1.4	1	1.68	0.6
Pancreas	2	0.22	9.2*	2	0.77	2.6	2	0.72	2.8	1	1.31	0.8	7	3.02	2.3
Respiratory system	3	0.88	3.4	1	3.39	0.3	2	3.23	0.6	6	5.57	1.1	12	13.07	0.9
Nasal cavities, sinuses	0	0.02	0.0	0	0.06	0.0	0	0.05	0.0	0	0.08	0.0	0	0.20	0.0
Larynx	1	0.09	11.0	0	0.34	0.0	0	0.31	0.0	3	0.47	6.3*	4	1.21	3.3
Trachea, bronchus, lung	2	0.76	2.6	1	2.96	0.3	2	2.84	0.7	3	4.96	0.6	8	11.52	0.7
Female breast	5	1.60	3.1*	15	6.05	2.5*	13	5.89	2.2*	14	10.75	1.3	47	24.27	1.9*
Female genital tract	0	1.00	0.0	5	3.74	1.3	3	3.52	0.9	2	6.21	0.3	10	14.46	0.7
Cervix uteri	0	0.25	0.0	0	0.92	0.0	0	0.80	0.0	0	1.11	0.0	0	3.08	0.0
Corpus uteri	0	0.37	0.0	2	1.43	1.4	2	1.43	1.4	0	2.89	0.0	4	6.11	0.7
Uterus, NOS	0	0.06	0.0	0	0.20	0.0	0	0.15	0.0	0	0.19	0.0	0	0.60	0.0
Ovary, fallopian tubes	0	0.27	0.0	3	1.03	2.9	0	0.98	0.0	2	1.74	1.2	5	4.02	1.2
Prostate gland	2	0.36	5.6	0	1.37	0.0	0	1.34	0.0	3	1.74	1.7	5	4.81	1.0
Testis	0	0.02	0.0	0	0.07	0.0	0	0.05	0.0	0	0.04	0.0	0	0.17	0.0
Kidney, renal pelvis, ureter	3	0.15	19.9*	1	0.55	1.8	3	0.52	5.8*	3	0.88	3.4	10	2.10	4.8*
Bladder, other urinary	0	0.30	0.0	2	1.12	1.8	2	1.06	1.9	2	1.76	1.1	6	4.24	1.4
Melanoma of the skin	1	0.14	7.0	1	0.56	1.8	0	0.52	0.0	1	0.80	1.3	3	2.02	1.5
Eye	0	0.01	0.0	0	0.05	0.0	0	0.04	0.0	0	0.07	0.0	0	0.18	0.0
Brain, central nervous system	0	0.11	0.0	0	0.41	0.0	1	0.38	2.7	2	0.61	3.3	3	1.51	2.0
Thyroid gland	2	0.09	22.7*	2	0.33	6.2	1	0.28	3.6	0	0.38	0.0	5	1.06	4.7*
Bone	1	0.02	66.3	0	0.05	0.0	0	0.04	0.0	0	0.06	0.0	1	0.16	6.1
Connective tissue	2	0.04	45.5*	1	0.16	6.2	0	0.14	0.0	0	0.20	0.0	3	0.55	5.4*
Lymphatic, hematopoietic system	2	0.54	3.7	1	1.97	0.5	3	1.82	1.6	6	3.10	1.9	12	7.43	1.6
Non-Hodgkin's lymphoma	1	0.19	5.2	0	0.72	0.0	1	0.69	1.5	2	1.22	1.6	4	2.81	1.4
Hodgkin's disease	1	0.07	14.2	0	0.25	0.0	0	0.20	0.0	0	0.25	0.0	1	0.77	1.3
Multiple myeloma	0	0.07	0.0	0	0.28	0.0	1	0.28	3.6	1	0.54	1.9	2	1.16	1.7
Leukemias	0	0.20	0.0	1	0.72	1.4	1	0.66	1.5	3	1.10	2.7	5	2.68	1.9
Chronic lymphocytic	0	0.05	0.0	0	0.19	0.0	0	0.18	0.0	1	0.33	3.1	1	0.75	1.3
Acute nonlymphocytic	0	0.07	0.0	0	0.25	0.0	1	0.24	4.2	2	0.41	4.9	3	0.96	3.1

+ ICD-O code = 193.

\* P<.05.

THYROID  
MALES

TABLE 4D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among males in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	603			506			312			168			603		
Person-yr in interval	449			1,604			1,154			1,173			4,380		
All second cancers	8	2.53	3.2*	7	9.47	0.7	6	8.44	0.7	14	10.95	1.3	35	31.37	1.1
All excluding site of initial cancer	8	2.52	3.2*	6	9.42	0.6	6	8.40	0.7	14	10.91	1.3	34	31.23	1.1
Buccal cavity, pharynx	0	0.15	0.0	1	0.54	1.9	0	0.44	0.0	0	0.55	0.0	1	1.68	0.6
Lip	0	0.02	0.0	0	0.08	0.0	0	0.06	0.0	0	0.07	0.0	0	0.24	0.0
Tongue	0	0.03	0.0	0	0.11	0.0	0	0.09	0.0	0	0.11	0.0	0	0.33	0.0
Salivary gland	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.03	0.0	0	0.09	0.0
Gum, other mouth	0	0.04	0.0	1	0.16	6.4	0	0.13	0.0	0	0.17	0.0	1	0.50	2.0
Pharynx	0	0.04	0.0	0	0.14	0.0	0	0.12	0.0	0	0.16	0.0	0	0.46	0.0
Digestive system	1	0.77	1.3	2	2.84	0.7	0	2.47	0.0	4	3.14	1.3	7	9.22	0.8
Esophagus	0	0.06	0.0	0	0.21	0.0	0	0.17	0.0	1	0.21	4.7	1	0.65	1.5
Stomach	0	0.14	0.0	1	0.50	2.0	0	0.39	0.0	0	0.45	0.0	1	1.49	0.7
Colon	1	0.27	3.7	1	1.03	1.0	0	0.94	0.0	2	1.24	1.6	4	3.47	1.2
Rectum	0	0.17	0.0	0	0.61	0.0	0	0.53	0.0	1	0.68	1.5	1	2.00	0.5
Liver, biliary	0	0.04	0.0	0	0.15	0.0	0	0.13	0.0	0	0.16	0.0	0	0.48	0.0
Pancreas	0	0.08	0.0	0	0.30	0.0	0	0.26	0.0	0	0.33	0.0	0	0.98	0.0
Respiratory system	1	0.55	1.8	0	2.10	0.0	2	1.90	1.0	1	2.61	0.4	4	7.16	0.6
Nasal cavities, sinuses	0	0.01	0.0	0	0.02	0.0	0	0.02	0.0	0	0.02	0.0	0	0.07	0.0
Larynx	0	0.07	0.0	0	0.26	0.0	0	0.22	0.0	1	0.29	3.4	1	0.83	1.2
Trachea, bronchus, lung	1	0.47	2.1	0	1.80	0.0	2	1.65	1.2	0	2.27	0.0	3	6.19	0.5
Prostate gland	2	0.36	5.6	0	1.37	0.0	0	1.34	0.0	3	1.74	1.7	5	4.81	1.0
Testis	0	0.02	0.0	0	0.07	0.0	0	0.05	0.0	0	0.04	0.0	0	0.17	0.0
Kidney, renal pelvis, ureter	1	0.07	14.0	0	0.26	0.0	1	0.23	4.3	1	0.31	3.2	3	0.88	3.4
Bladder, other urinary	0	0.17	0.0	1	0.66	1.5	0	0.61	0.0	2	0.81	2.5	3	2.26	1.3
Melanoma of the skin	0	0.05	0.0	1	0.17	5.8	0	0.15	0.0	1	0.19	5.2	2	0.56	3.6
Eye	0	0.00	0.0	0	0.02	0.0	0	0.01	0.0	0	0.02	0.0	0	0.05	0.0
Brain, central nervous system	0	0.04	0.0	0	0.15	0.0	1	0.13	7.9	0	0.16	0.0	1	0.48	2.1
Thyroid gland	0	0.01	0.0	1	0.05	21.8	0	0.04	0.0	0	0.04	0.0	1	0.14	7.3
Bone	1	0.01	191.7*	0	0.02	0.0	0	0.01	0.0	0	0.01	0.0	1	0.05	19.2
Connective tissue	2	0.02	126.1*	1	0.06	17.0	0	0.05	0.0	0	0.06	0.0	3	0.18	16.7*
Lymphatic, hematopoietic system	0	0.19	0.0	0	0.70	0.0	1	0.61	1.6	1	0.77	1.3	2	2.28	0.9
Non-Hodgkin's lymphoma	0	0.06	0.0	0	0.24	0.0	0	0.21	0.0	0	0.28	0.0	0	0.79	0.0
Hodgkin's disease	0	0.02	0.0	0	0.09	0.0	0	0.06	0.0	0	0.06	0.0	0	0.24	0.0
Multiple myeloma	0	0.02	0.0	0	0.09	0.0	1	0.09	11.5	0	0.12	0.0	1	0.33	3.1
Leukemias	0	0.08	0.0	0	0.28	0.0	0	0.25	0.0	1	0.31	3.2	1	0.92	1.1
Chronic lymphocytic	0	0.02	0.0	0	0.09	0.0	0	0.08	0.0	0	0.10	0.0	0	0.29	0.0
Acute nonlymphocytic	0	0.02	0.0	0	0.09	0.0	0	0.08	0.0	1	0.11	9.3	1	0.29	3.4

+ ICD-O code = 193.

\* P<.05.

THYROID  
FEMALES

TABLE 4E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among females in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr			O	E	
No. starting interval	1,681			1,454			1,000			629			1,681		
Person-yr in interval	1,281			4,801			3,971			5,267			15,320		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	16	5.52	2.9*	42	20.16	2.1*	31	19.40	1.6*	45	36.70	1.2	134	81.75	1.6*
All excluding site of initial cancer	14	5.45	2.6*	41	19.88	2.1*	30	19.16	1.6*	45	36.37	1.2	130	80.82	1.6*
Buccal cavity, pharynx	0	0.10	0.0	2	0.37	5.4	0	0.36	0.0	0	0.73	0.0	2	1.56	1.3
Lip	0	0.00	0.0	1	0.02	58.0	0	0.02	0.0	0	0.03	0.0	1	0.07	14.2
Tongue	0	0.02	0.0	0	0.07	0.0	0	0.07	0.0	0	0.15	0.0	0	0.32	0.0
Salivary gland	0	0.01	0.0	0	0.05	0.0	0	0.05	0.0	0	0.08	0.0	0	0.20	0.0
Gum, other mouth	0	0.03	0.0	0	0.12	0.0	0	0.12	0.0	0	0.25	0.0	0	0.53	0.0
Pharynx	0	0.02	0.0	1	0.09	11.6	0	0.09	0.0	0	0.18	0.0	1	0.37	2.7
Digestive system	2	1.42	1.4	12	4.83	2.5*	5	4.61	1.1	13	9.13	1.4	32	19.99	1.6*
Esophagus	0	0.03	0.0	0	0.12	0.0	0	0.12	0.0	1	0.25	4.1	1	0.52	1.9
Stomach	0	0.19	0.0	1	0.59	1.7	1	0.52	1.9	0	0.90	0.0	2	2.19	0.9
Colon	0	0.66	0.0	5	2.27	2.2	2	2.20	0.9	8	4.43	1.8	15	9.56	1.6
Rectum	0	0.28	0.0	4	0.97	4.1*	0	0.94	0.0	2	1.87	1.1	6	4.05	1.5
Liver, biliary	0	0.09	0.0	0	0.31	0.0	0	0.28	0.0	1	0.53	1.9	1	1.21	0.8
Pancreas	2	0.14	14.6*	2	0.47	4.2	2	0.46	4.4	1	0.98	1.0	7	2.05	3.4*
Respiratory system	2	0.33	6.0	1	1.29	0.8	0	1.33	0.0	5	2.96	1.7	8	5.91	1.4
Nasal cavities, sinuses	0	0.01	0.0	0	0.03	0.0	0	0.03	0.0	0	0.06	0.0	0	0.14	0.0
Larynx	1	0.02	46.9	0	0.08	0.0	0	0.09	0.0	2	0.18	10.9*	3	0.38	8.0*
Trachea, bronchus, lung	1	0.30	3.4	1	1.15	0.9	0	1.19	0.0	3	2.69	1.1	5	5.33	0.9
Female breast	5	1.60	3.1*	15	6.05	2.5*	13	5.89	2.2*	14	10.75	1.3	47	24.27	1.9*
Female genital tract	0	1.00	0.0	5	3.74	1.3	3	3.52	0.9	2	6.21	0.3	10	14.46	0.7
Cervix uteri	0	0.25	0.0	0	0.92	0.0	0	0.80	0.0	0	1.11	0.0	0	3.08	0.0
Corpus uteri	0	0.37	0.0	2	1.43	1.4	2	1.43	1.4	0	2.89	0.0	4	6.11	0.7
Uterus, NOS	0	0.06	0.0	0	0.20	0.0	0	0.15	0.0	0	0.19	0.0	0	0.60	0.0
Ovary, fallopian tubes	0	0.27	0.0	3	1.03	2.9	0	0.98	0.0	2	1.74	1.2	5	4.02	1.2
Kidney, renal pelvis, ureter	2	0.08	25.2*	1	0.29	3.5	2	0.28	7.1	2	0.57	3.5	7	1.22	5.7*
Bladder, other urinary	0	0.13	0.0	1	0.45	2.2	2	0.45	4.4	0	0.95	0.0	3	1.98	1.5
Melanoma of the skin	1	0.10	10.3	0	0.39	0.0	0	0.37	0.0	0	0.61	0.0	1	1.47	0.7
Eye	0	0.01	0.0	0	0.03	0.0	0	0.03	0.0	0	0.06	0.0	0	0.13	0.0
Brain, central nervous system	0	0.07	0.0	0	0.26	0.0	0	0.25	0.0	2	0.45	4.5	2	1.03	1.9
Thyroid gland	2	0.07	26.8*	1	0.28	3.6	1	0.24	4.2	0	0.33	0.0	4	0.93	4.3*
Bone	0	0.01	0.0	0	0.03	0.0	0	0.03	0.0	0	0.04	0.0	0	0.11	0.0
Connective tissue	0	0.03	0.0	0	0.10	0.0	0	0.09	0.0	0	0.15	0.0	0	0.37	0.0
Lymphatic, hematopoietic system	2	0.35	5.7	1	1.27	0.8	2	1.21	1.7	5	2.33	2.1	10	5.16	1.9
Non-Hodgkin's lymphoma	1	0.13	7.8	0	0.48	0.0	1	0.47	2.1	2	0.94	2.1	4	2.02	2.0
Hodgkin's disease	1	0.05	21.6	0	0.17	0.0	0	0.14	0.0	0	0.18	0.0	1	0.54	1.9
Multiple myeloma	0	0.05	0.0	0	0.18	0.0	0	0.19	0.0	1	0.42	2.4	1	0.84	1.2
Leukemias	0	0.12	0.0	1	0.44	2.3	1	0.41	2.4	2	0.78	2.6	4	1.76	2.3
Chronic lymphocytic	0	0.03	0.0	0	0.10	0.0	0	0.10	0.0	1	0.22	4.5	1	0.46	2.2
Acute nonlymphocytic	0	0.05	0.0	0	0.16	0.0	1	0.16	6.3	1	0.30	3.3	2	0.67	3.0

+ ICD-O code = 193.

\* P<.05.