

LUNG
BOTH SEXES

TABLE 3A. -- Characteristics of persons reported to the Danish Cancer Registry with an initial cancer of the trachea, bronchus, or lung, 1943-80+

Category	Male	Female	Total
No. with first primary cancer*	25,338	5,709	31,047
No. who developed a second primary cancer	400	95	495
Average age at diagnosis of first cancer, yr	64	63	64
Average yr of diagnosis of first cancer	1968	1969	1968
Person-yr of follow-up	37,597	7,896	45,493
Average follow-up, yr	1.5	1.4	1.5
Percent given radiotherapy for first cancer	24	23	24

+ ICD-7 code = 162.

* 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 3B. -- Microscopic confirmation among persons who developed second primary cancers after an initial cancer of the trachea, bronchus, or lung in Denmark, 1943-80

Microscopically confirmed	No.	Percent+
Both first and second cancers	415	83.8
Only the first cancer	38	7.7
Only the second cancer	30	6.1
Neither first nor second cancer	12	2.4
Total second primary cancers	495	100.0

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

LUNG
BOTH SEXES

TABLE 3C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the trachea, bronchus, or lung among males and females in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
No. starting interval	31,047			9,208			2,162			917			31,047		
Person-yr in interval	18,078			15,395			7,224			4,796			45,494		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	148	190.08	0.8*	178	160.90	1.1	82	86.45	0.9	87	71.42	1.2	495	508.85	1.0
All excluding site of initial cancer	146	153.88	0.9	170	128.67	1.3*	79	69.12	1.1	86	58.00	1.5*	481	409.67	1.2*
Buccal cavity, pharynx	2	5.59	0.4	7	4.73	1.5	3	2.44	1.2	4	1.87	2.1	16	14.63	1.1
Lip	2	2.87	0.7	2	2.42	0.8	1	1.25	0.8	0	0.95	0.0	5	7.49	0.7
Tongue	0	0.44	0.0	0	0.37	0.0	0	0.18	0.0	2	0.14	14.3*	2	1.13	1.8
Salivary gland	0	0.50	0.0	1	0.42	2.4	0	0.22	0.0	1	0.16	6.3	2	1.29	1.6
Gum, other mouth	0	0.84	0.0	3	0.72	4.2	0	0.38	0.0	1	0.32	3.1	4	2.28	1.8
Pharynx	0	0.93	0.0	1	0.80	1.3	2	0.41	4.9	0	0.30	0.0	3	2.44	1.2
Digestive system	67	64.16	1.0	48	52.68	0.9	25	28.43	0.9	33	24.25	1.4	173	169.51	1.0
Esophagus	5	2.65	1.9	2	2.17	0.9	0	1.15	0.0	2	0.94	2.1	9	6.90	1.3
Stomach	12	17.61	0.7	14	13.93	1.0	6	7.35	0.8	5	6.20	0.8	37	45.09	0.8
Colon	12	15.86	0.8	13	13.13	1.0	4	7.23	0.6	11	6.43	1.7	40	42.65	0.9
Rectum	10	14.28	0.7	7	11.83	0.6	3	6.34	0.5	6	5.29	1.1	26	37.73	0.7
Liver, biliary	8	4.24	1.9	4	3.59	1.1	5	1.99	2.5	5	1.73	2.9	22	11.57	1.9*
Pancreas	16	7.51	2.1*	4	6.39	0.6	5	3.50	1.4	3	2.95	1.0	28	20.37	1.4
Respiratory system	7	41.00	0.2*	21	36.41	0.6*	9	19.56	0.5*	3	15.13	0.2*	40	112.09	0.4*
Nasal cavities, sinuses	1	0.50	2.0	0	0.42	0.0	0	0.23	0.0	0	0.17	0.0	1	1.33	0.8
Larynx	3	2.73	1.1	12	2.42	5.0*	6	1.27	4.7*	2	0.95	2.1	23	7.37	3.1*
Trachea, bronchus, lung	2	36.20	0.1*	8	32.23	0.2*	3	17.33	0.2*	1	13.42	0.1*	14	99.18	0.1*
Female breast	5	5.98	0.8	6	4.92	1.2	4	2.34	1.7	5	1.78	2.8	20	15.02	1.3
Female genital tract	2	5.47	0.4	9	4.59	2.0	4	2.11	1.9	8	1.48	5.4*	23	13.66	1.7*
Cervix uteri	0	1.72	0.0	3	1.46	2.1	2	0.63	3.1	2	0.40	5.1	7	4.21	1.7
Corpus uteri	0	1.67	0.0	2	1.42	1.4	0	0.67	0.0	6	0.47	12.7*	8	4.23	1.9
Uterus, NOS	0	0.09	0.0	2	0.07	29.3*	1	0.03	30.8	0	0.03	0.0	3	0.22	13.4*
Ovary, fallopian tubes	2	1.66	1.2	2	1.39	1.4	1	0.65	1.5	0	0.47	0.0	5	4.18	1.2
Prostate gland	16	19.80	0.8	17	16.33	1.0	3	9.59	0.3*	12	9.10	1.3	48	54.82	0.9
Testis	0	0.59	0.0	0	0.50	0.0	2	0.23	8.8	1	0.15	6.8	3	1.46	2.0
Kidney, renal pelvis, ureter	16	6.35	2.5*	18	5.47	3.3*	6	2.92	2.1	6	2.37	2.5	46	17.11	2.7*
Bladder, other urinary	12	15.18	0.8	27	13.21	2.0*	14	7.28	1.9*	13	6.03	2.2*	66	41.69	1.6*
Melanoma of the skin	1	1.93	0.5	2	1.68	1.2	0	0.84	0.0	0	0.62	0.0	3	5.08	0.6
Eye	0	0.60	0.0	0	0.51	0.0	0	0.26	0.0	0	0.19	0.0	0	1.57	0.0
Brain, central nervous system	2	3.80	0.5	2	3.35	0.6	1	1.64	0.6	0	1.12	0.0	5	9.89	0.5
Thyroid gland	1	0.67	1.5	0	0.56	0.0	0	0.29	0.0	0	0.23	0.0	1	1.77	0.6
Bone	0	0.32	0.0	0	0.27	0.0	0	0.14	0.0	0	0.10	0.0	0	0.83	0.0
Connective tissue	1	0.62	1.6	2	0.52	3.8	1	0.26	3.8	0	0.19	0.0	4	1.59	2.5
Lymphatic, hematopoietic system	11	12.21	0.9	15	10.38	1.4	7	5.56	1.3	1	4.58	0.2	34	32.73	1.0
Non-Hodgkin's lymphoma	4	3.35	1.2	3	2.86	1.0	3	1.52	2.0	0	1.23	0.0	10	8.96	1.1
Hodgkin's disease	1	0.90	1.1	1	0.78	1.3	0	0.38	0.0	0	0.27	0.0	2	2.34	0.9
Multiple myeloma	1	2.34	0.4	3	2.01	1.5	0	1.09	0.0	0	0.89	0.0	4	6.34	0.6
Leukemias	5	5.49	0.9	8	4.61	1.7	4	2.50	1.6	1	2.13	0.5	18	14.74	1.2
Chronic lymphocytic	3	2.88	1.0	6	2.41	2.5	2	1.32	1.5	1	1.14	0.9	12	7.76	1.5
Acute nonlymphocytic	1	1.48	0.7	2	1.28	1.6	1	0.70	1.4	0	0.59	0.0	4	4.04	1.0

+ ICD-7 code = 162.

* P<.05.

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MALES

TABLE 3D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the trachea, bronchus, or lung among males in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
No. starting interval	25,338			7,644			1,786			769			25,338		
Person-yr in interval	14,862			12,707			6,025			4,003			37,597		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	121	162.73	0.7*	143	138.76	1.0	66	75.66	0.9	70	62.67	1.1	400	439.82	0.9
All excluding site of initial cancer	119	127.94	0.9	136	107.72	1.3*	63	58.91	1.1	69	49.71	1.4*	387	344.28	1.1*
Buccal cavity, pharynx	1	5.23	0.2	6	4.45	1.3	3	2.30	1.3	2	1.75	1.1	12	13.73	0.9
Lip	1	2.82	0.4	2	2.38	0.8	1	1.23	0.8	0	0.93	0.0	4	7.36	0.5
Tongue	0	0.38	0.0	0	0.32	0.0	0	0.16	0.0	1	0.12	8.1	1	0.98	1.0
Salivary gland	0	0.43	0.0	1	0.36	2.8	0	0.19	0.0	1	0.14	7.1	2	1.12	1.8
Gum, other mouth	0	0.74	0.0	3	0.64	4.7	0	0.34	0.0	0	0.28	0.0	3	2.01	1.5
Pharynx	0	0.86	0.0	0	0.74	0.0	2	0.38	5.3	0	0.28	0.0	2	2.27	0.9
Digestive system	54	55.55	1.0	38	46.00	0.8	21	25.03	0.8	33	21.18	1.6*	146	147.75	1.0
Esophagus	4	2.42	1.7	2	2.00	1.0	0	1.06	0.0	2	0.85	2.3	8	6.33	1.3
Stomach	10	15.71	0.6	13	12.55	1.0	6	6.65	0.9	5	5.55	0.9	34	40.46	0.8
Colon	9	13.03	0.7	8	10.89	0.7	4	6.08	0.7	11	5.39	2.0*	32	35.39	0.9
Rectum	9	12.71	0.7	6	10.58	0.6	3	5.72	0.5	6	4.75	1.3	24	33.76	0.7
Liver, biliary	6	3.45	1.7	3	2.97	1.0	5	1.67	3.0	5	1.43	3.5*	19	9.53	2.0*
Pancreas	13	6.55	2.0*	3	5.63	0.5	2	3.11	0.6	3	2.60	1.2	21	17.90	1.2
Respiratory system	7	39.37	0.2*	20	35.04	0.6*	9	18.89	0.5*	3	14.60	0.2*	39	107.89	0.4*
Nasal cavities, sinuses	1	0.46	2.2	0	0.39	0.0	0	0.21	0.0	0	0.16	0.0	1	1.22	0.8
Larynx	3	2.66	1.1	12	2.36	5.1*	6	1.24	4.8*	2	0.93	2.2	23	7.19	3.2*
Trachea, bronchus, lung	2	34.79	0.1*	7	31.04	0.2*	3	16.75	0.2*	1	12.96	0.1*	13	95.54	0.1*
Prostate gland	16	19.80	0.8	17	16.33	1.0	3	9.59	0.3*	12	9.10	1.3	48	54.82	0.9
Testis	0	0.59	0.0	0	0.50	0.0	2	0.23	8.8	1	0.15	6.8	3	1.46	2.0
Kidney, renal pelvis, ureter	13	5.60	2.3*	16	4.85	3.3*	6	2.62	2.3	6	2.12	2.8*	41	15.19	2.7*
Bladder, other urinary	12	14.39	0.8	26	12.57	2.1*	13	6.95	1.9	12	5.75	2.1*	63	39.66	1.6*
Melanoma of the skin	1	1.50	0.7	1	1.31	0.8	0	0.67	0.0	0	0.50	0.0	2	3.98	0.5
Eye	0	0.52	0.0	0	0.45	0.0	0	0.23	0.0	0	0.17	0.0	0	1.38	0.0
Brain, central nervous system	2	3.21	0.6	1	2.84	0.4	1	1.40	0.7	0	0.95	0.0	4	8.39	0.5
Thyroid gland	1	0.49	2.1	0	0.42	0.0	0	0.22	0.0	0	0.17	0.0	1	1.31	0.8
Bone	0	0.28	0.0	0	0.24	0.0	0	0.12	0.0	0	0.09	0.0	0	0.73	0.0
Connective tissue	1	0.53	1.9	2	0.45	4.5	0	0.23	0.0	0	0.17	0.0	3	1.38	2.2
Lymphatic, hematopoietic system	8	10.75	0.7	14	9.20	1.5	6	4.97	1.2	1	4.08	0.2	29	29.00	1.0
Non-Hodgkin's lymphoma	2	2.90	0.7	3	2.50	1.2	2	1.34	1.5	0	1.07	0.0	7	7.81	0.9
Hodgkin's disease	1	0.80	1.2	1	0.69	1.4	0	0.34	0.0	0	0.24	0.0	2	2.08	1.0
Multiple myeloma	1	2.05	0.5	3	1.77	1.7	0	0.97	0.0	0	0.79	0.0	4	5.58	0.7
Leukemias	4	4.89	0.8	7	4.13	1.7	4	2.26	1.8	1	1.92	0.5	16	13.21	1.2
Chronic lymphocytic	3	2.63	1.1	5	2.21	2.3	2	1.22	1.6	1	1.05	0.9	11	7.12	1.5
Acute nonlymphocytic	0	1.28	0.0	2	1.11	1.8	1	0.62	1.6	0	0.52	0.0	3	3.53	0.8

+ ICD-7 code = 162.

* P<.05.

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TABLE 3E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the trachea, bronchus, or lung among females in Denmark, 1943-80+

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	5,709			1,564			376			148			5,709		
Person-yr in interval	3,216			2,688			1,199			792			7,896		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	27	27.35	1.0	35	22.14	1.6*	16	10.79	1.5	17	8.75	1.9*	95	69.03	1.4*
All excluding site of initial cancer	27	25.94	1.0	34	20.95	1.6*	16	10.21	1.6	17	8.29	2.1*	94	65.39	1.4*
Buccal cavity, pharynx	1	0.36	2.8	1	0.28	3.5	0	0.14	0.0	2	0.12	16.9*	4	0.90	4.5*
Lip	1	0.05	18.9	0	0.04	0.0	0	0.02	0.0	0	0.02	0.0	1	0.13	7.6
Tongue	0	0.06	0.0	0	0.05	0.0	0	0.02	0.0	1	0.02	48.2	1	0.15	6.7
Salivary gland	0	0.07	0.0	0	0.06	0.0	0	0.03	0.0	0	0.02	0.0	0	0.17	0.0
Gum, other mouth	0	0.10	0.0	0	0.08	0.0	0	0.04	0.0	1	0.04	25.4	1	0.27	3.8
Pharynx	0	0.07	0.0	1	0.06	17.9	0	0.03	0.0	0	0.02	0.0	1	0.17	5.8
Digestive system	13	8.61	1.5	10	6.68	1.5	4	3.40	1.2	0	3.07	0.0	27	21.76	1.2
Esophagus	1	0.23	4.4	0	0.17	0.0	0	0.09	0.0	0	0.09	0.0	1	0.57	1.8
Stomach	2	1.90	1.1	1	1.38	0.7	0	0.70	0.0	0	0.65	0.0	3	4.63	0.6
Colon	3	2.83	1.1	5	2.24	2.2	0	1.15	0.0	0	1.04	0.0	8	7.26	1.1
Rectum	1	1.57	0.6	1	1.25	0.8	0	0.62	0.0	0	0.54	0.0	2	3.97	0.5
Liver, biliary	2	0.79	2.5	1	0.62	1.6	0	0.32	0.0	0	0.30	0.0	3	2.04	1.5
Pancreas	3	0.96	3.1	1	0.76	1.3	3	0.39	7.6*	0	0.35	0.0	7	2.47	2.8*
Respiratory system	0	1.63	0.0	1	1.37	0.7	0	0.67	0.0	0	0.53	0.0	1	4.20	0.2
Nasal cavities, sinuses	0	0.04	0.0	0	0.03	0.0	0	0.02	0.0	0	0.01	0.0	0	0.11	0.0
Larynx	0	0.07	0.0	0	0.06	0.0	0	0.03	0.0	0	0.02	0.0	0	0.18	0.0
Trachea, bronchus, lung	0	1.41	0.0	1	1.19	0.8	0	0.58	0.0	0	0.46	0.0	1	3.64	0.3
Female breast	5	5.98	0.8	6	4.92	1.2	4	2.34	1.7	5	1.78	2.8	20	15.02	1.3
Female genital tract	2	5.47	0.4	9	4.59	2.0	4	2.11	1.9	8	1.48	5.4*	23	13.66	1.7*
Cervix uteri	0	1.72	0.0	3	1.46	2.1	2	0.63	3.1	2	0.40	5.1	7	4.21	1.7
Corpus uteri	0	1.67	0.0	2	1.42	1.4	0	0.67	0.0	6	0.47	12.7*	8	4.23	1.9
Uterus, NOS	0	0.09	0.0	2	0.07	29.3*	1	0.03	30.8	0	0.03	0.0	3	0.22	13.4*
Ovary, fallopian tubes	2	1.66	1.2	2	1.39	1.4	1	0.65	1.5	0	0.47	0.0	5	4.18	1.2
Kidney, renal pelvis, ureter	3	0.75	4.0	2	0.62	3.2	0	0.30	0.0	0	0.25	0.0	5	1.92	2.6
Bladder, other urinary	0	0.79	0.0	1	0.64	1.6	1	0.33	3.1	1	0.28	3.6	3	2.03	1.5
Melanoma of the skin	0	0.43	0.0	1	0.37	2.7	0	0.17	0.0	0	0.12	0.0	1	1.10	0.9
Eye	0	0.08	0.0	0	0.06	0.0	0	0.03	0.0	0	0.02	0.0	0	0.19	0.0
Brain, central nervous system	0	0.59	0.0	1	0.51	2.0	0	0.24	0.0	0	0.17	0.0	1	1.50	0.7
Thyroid gland	0	0.18	0.0	0	0.14	0.0	0	0.07	0.0	0	0.06	0.0	0	0.46	0.0
Bone	0	0.04	0.0	0	0.03	0.0	0	0.02	0.0	0	0.01	0.0	0	0.10	0.0
Connective tissue	0	0.09	0.0	0	0.07	0.0	1	0.03	30.6	0	0.02	0.0	1	0.21	4.7
Lymphatic, hematopoietic system	3	1.46	2.1	1	1.18	0.8	1	0.59	1.7	0	0.50	0.0	5	3.73	1.3
Non-Hodgkin's lymphoma	2	0.45	4.5	0	0.36	0.0	1	0.18	5.5	0	0.16	0.0	3	1.15	2.6
Hodgkin's disease	0	0.10	0.0	0	0.09	0.0	0	0.04	0.0	0	0.03	0.0	0	0.26	0.0
Multiple myeloma	0	0.29	0.0	0	0.24	0.0	0	0.12	0.0	0	0.10	0.0	0	0.76	0.0
Leukemias	1	0.60	1.7	1	0.48	2.1	0	0.24	0.0	0	0.21	0.0	2	1.53	1.3
Chronic lymphocytic	0	0.25	0.0	1	0.20	5.1	0	0.10	0.0	0	0.09	0.0	1	0.64	1.6
Acute nonlymphocytic	1	0.20	5.0	0	0.17	0.0	0	0.08	0.0	0	0.07	0.0	1	0.51	1.9

+ ICD-7 code = 162.

* P<.05.