

KIDNEY  
BOTH SEXES

TABLE 1A. -- Characteristics of persons reported to the Danish Cancer Registry with an initial cancer of the kidney, renal pelvis, or ureter, 1943-80+

Category	Male	Female	Total
No. with first primary cancer*	5,122	4,040	9,162
No. who developed a second primary cancer	255	161	416
Average age at diagnosis of first cancer, yr	61	61	61
Average yr of diagnosis of first cancer	1966	1966	1966
Person-yr of follow-up	16,125	14,246	30,371
Average follow-up, yr	3.2	3.5	3.3
Percent given radiotherapy for first cancer	24	22	23

+ ICD-7 code = 180.

\* 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 1B. -- Microscopic confirmation among persons who developed second primary cancers after an initial cancer of the kidney, renal pelvis, or ureter in Denmark, 1943-80

Microscopically confirmed	No.	Percent+
Both first and second cancers	346	83.2
Only the first cancer	43	10.3
Only the second cancer	20	4.8
Neither first nor second cancer	7	1.7
Total second primary cancers	416	100.0

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

KIDNEY  
BOTH SEXES

TABLE 1C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the kidney, renal pelvis, or ureter among males and 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	O/E
No. starting interval	9,162			4,841			1,933			912			9,162		
Person-yr in interval	6,630			11,705			6,758			5,279			30,371		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	78	61.56	1.3*	181	112.76	1.6*	86	70.75	1.2	71	62.80	1.1	416	307.85	1.4*
All excluding site of initial cancer	72	59.64	1.2	179	109.19	1.6*	82	68.52	1.2	70	60.85	1.2	403	298.18	1.4*
Buccal cavity, pharynx	2	1.54	1.3	1	2.74	0.4	0	1.64	0.0	0	1.34	0.0	3	7.25	0.4
Lip	1	0.70	1.4	0	1.23	0.0	0	0.71	0.0	0	0.54	0.0	1	3.20	0.3
Tongue	0	0.15	0.0	0	0.26	0.0	0	0.16	0.0	0	0.15	0.0	0	0.71	0.0
Salivary gland	0	0.17	0.0	0	0.30	0.0	0	0.18	0.0	0	0.15	0.0	0	0.80	0.0
Gum, other mouth	0	0.26	0.0	0	0.48	0.0	0	0.30	0.0	0	0.29	0.0	0	1.33	0.0
Pharynx	1	0.26	3.8	1	0.46	2.2	0	0.28	0.0	0	0.22	0.0	2	1.22	1.6
Digestive system	8	21.54	0.4*	37	38.43	1.0	23	24.40	0.9	28	22.46	1.2	96	106.82	0.9
Esophagus	0	0.81	0.0	1	1.40	0.7	0	0.88	0.0	0	0.77	0.0	1	3.86	0.3
Stomach	2	6.04	0.3	8	10.10	0.8	2	6.24	0.3	2	5.50	0.4	14	27.87	0.5*
Colon	0	5.64	0.0*	14	10.43	1.3	8	6.84	1.2	12	6.67	1.8	34	29.57	1.1
Rectum	4	4.50	0.9	7	8.00	0.9	4	4.97	0.8	3	4.36	0.7	18	21.82	0.8
Liver, biliary	0	1.48	0.0	5	2.83	1.8	1	1.87	0.5	3	1.84	1.6	9	8.02	1.1
Pancreas	2	2.32	0.9	1	4.36	0.2	7	2.80	2.5*	6	2.60	2.3	16	12.08	1.3
Respiratory system	6	9.50	0.6	18	18.06	1.0	7	11.00	0.6	7	8.80	0.8	38	47.37	0.8
Nasal cavities, sinuses	0	0.14	0.0	0	0.26	0.0	0	0.16	0.0	0	0.13	0.0	0	0.68	0.0
Larynx	0	0.61	0.0	1	1.16	0.9	0	0.70	0.0	0	0.54	0.0	1	3.01	0.3
Trachea, bronchus, lung	6	8.31	0.7	17	15.84	1.1	6	9.66	0.6	7	7.73	0.9	36	41.54	0.9
Female breast	5	5.15	1.0	7	9.56	0.7	6	6.26	1.0	9	6.22	1.4	27	27.18	1.0
Female genital tract	7	4.78	1.5	7	8.78	0.8	6	5.47	1.1	1	4.98	0.2	21	24.00	0.9
Cervix uteri	3	1.50	2.0	5	2.69	1.9	4	1.58	2.5	0	1.29	0.0	12	7.05	1.7
Corpus uteri	4	1.43	2.8	1	2.67	0.4	2	1.68	1.2	1	1.53	0.7	8	7.31	1.1
Uterus, NOS	0	0.10	0.0	0	0.16	0.0	0	0.11	0.0	0	0.12	0.0	0	0.49	0.0
Ovary, fallopian tubes	0	1.45	0.0	0	2.71	0.0	0	1.72	0.0	0	1.62	0.0	0	7.50	0.0*
Prostate gland	8	4.70	1.7	9	8.62	1.0	7	5.40	1.3	7	4.49	1.6	31	23.20	1.3
Testis	0	0.16	0.0	0	0.29	0.0	0	0.16	0.0	1	0.11	9.1	1	0.72	1.4
Kidney, renal pelvis, ureter	6	1.92	3.1*	2	3.57	0.6	4	2.23	1.8	1	1.95	0.5	13	9.67	1.3
Bladder, other urinary	27	3.81	7.1*	81	7.24	11.2*	23	4.53	5.1*	7	3.84	1.8	138	19.42	7.1*
Melanoma of the skin	1	0.67	1.5	1	1.28	0.8	0	0.80	0.0	0	0.69	0.0	2	3.45	0.6
Eye	1	0.19	5.3	1	0.34	2.9	0	0.20	0.0	0	0.17	0.0	2	0.90	2.2
Brain, central nervous system	4	1.19	3.4	2	2.20	0.9	1	1.30	0.8	2	1.03	1.9	9	5.73	1.6
Thyroid gland	0	0.28	0.0	0	0.51	0.0	2	0.33	6.1	1	0.32	3.1	3	1.43	2.1
Bone	0	0.11	0.0	0	0.19	0.0	0	0.12	0.0	0	0.10	0.0	0	0.51	0.0
Connective tissue	0	0.21	0.0	1	0.37	2.7	2	0.21	9.5*	0	0.18	0.0	3	0.97	3.1
Lymphatic, hematopoietic system	3	3.76	0.8	10	6.96	1.4	4	4.36	0.9	6	3.89	1.5	23	18.97	1.2
Non-Hodgkin's lymphoma	0	1.04	0.0	0	1.94	0.0	2	1.22	1.6	2	1.10	1.8	4	5.30	0.8
Hodgkin's disease	1	0.28	3.6	1	0.50	2.0	0	0.29	0.0	1	0.24	4.2	3	1.33	2.3
Multiple myeloma	1	0.72	1.4	2	1.35	1.5	0	0.85	0.0	1	0.77	1.3	4	3.68	1.1
Leukemias	1	1.68	0.6	6	3.10	1.9	2	1.94	1.0	2	1.75	1.1	11	8.47	1.3
Chronic lymphocytic	1	0.85	1.2	4	1.56	2.6	1	0.97	1.0	2	0.88	2.3	8	4.27	1.9
Acute nonlymphocytic	0	0.44	0.0	1	0.86	1.2	1	0.55	1.8	0	0.50	0.0	2	2.36	0.8

+ ICD-7 code = 180.

\* P<.05.

KIDNEY  
MALES

TABLE 1D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the kidney, renal pelvis, or ureter among males 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	5,122			2,686			1,041			461			5,122		
Person-yr in interval	3,693			6,438			3,544			2,450			16,126		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	46	37.03	1.2	118	67.14	1.8*	55	40.28	1.4*	36	31.21	1.2	255	175.65	1.5*
All excluding site of initial cancer	42	35.77	1.2	116	64.83	1.8*	51	38.90	1.3	35	30.15	1.2	244	169.64	1.4*
Buccal cavity, pharynx	2	1.21	1.7	0	2.13	0.0	0	1.23	0.0	0	0.90	0.0	2	5.47	0.4
Lip	1	0.65	1.5	0	1.14	0.0	0	0.65	0.0	0	0.47	0.0	1	2.92	0.3
Tongue	0	0.09	0.0	0	0.16	0.0	0	0.09	0.0	0	0.07	0.0	0	0.40	0.0
Salivary gland	0	0.10	0.0	0	0.17	0.0	0	0.10	0.0	0	0.07	0.0	0	0.44	0.0
Gum, other mouth	0	0.17	0.0	0	0.31	0.0	0	0.18	0.0	0	0.14	0.0	0	0.80	0.0
Pharynx	1	0.20	5.1	0	0.35	0.0	0	0.21	0.0	0	0.15	0.0	1	0.91	1.1
Digestive system	5	13.29	0.4*	24	23.18	1.0	12	13.79	0.9	14	10.68	1.3	55	60.94	0.9
Esophagus	0	0.59	0.0	0	1.00	0.0	0	0.59	0.0	0	0.44	0.0	0	2.61	0.0
Stomach	2	4.00	0.5	7	6.56	1.1	2	3.79	0.5	0	2.86	0.0	11	17.21	0.6
Colon	0	3.06	0.0	9	5.53	1.6	3	3.38	0.9	6	2.72	2.2	18	14.68	1.2
Rectum	3	3.01	1.0	5	5.25	1.0	3	3.11	1.0	1	2.38	0.4	12	13.75	0.9
Liver, biliary	0	0.76	0.0	3	1.43	2.1	0	0.88	0.0	1	0.70	1.4	4	3.77	1.1
Pancreas	0	1.46	0.0	0	2.70	0.0	4	1.63	2.5	4	1.27	3.1	8	7.06	1.1
Respiratory system	4	8.20	0.5	13	15.53	0.8	7	9.28	0.8	4	7.01	0.6	28	40.02	0.7
Nasal cavities, sinuses	0	0.10	0.0	0	0.19	0.0	0	0.11	0.0	0	0.08	0.0	0	0.48	0.0
Larynx	0	0.56	0.0	1	1.06	0.9	0	0.63	0.0	0	0.47	0.0	1	2.72	0.4
Trachea, bronchus, lung	4	7.20	0.6	12	13.68	0.9	6	8.18	0.7	4	6.19	0.6	26	35.25	0.7
Prostate gland	8	4.70	1.7	9	8.62	1.0	7	5.40	1.3	7	4.49	1.6	31	23.20	1.3
Testis	0	0.16	0.0	0	0.29	0.0	0	0.16	0.0	1	0.11	9.1	1	0.72	1.4
Kidney, renal pelvis, ureter	4	1.26	3.2	2	2.31	0.9	4	1.38	2.9	1	1.06	0.9	11	6.01	1.8
Bladder, other urinary	18	3.12	5.8*	59	5.91	10.0*	18	3.60	5.0*	3	2.82	1.1	98	15.45	6.3*
Melanoma of the skin	1	0.34	2.9	1	0.64	1.6	0	0.38	0.0	0	0.28	0.0	2	1.65	1.2
Eye	1	0.12	8.4	1	0.21	4.8	0	0.12	0.0	0	0.09	0.0	2	0.54	3.7
Brain, central nervous system	1	0.70	1.4	1	1.28	0.8	0	0.72	0.0	1	0.50	2.0	3	3.20	0.9
Thyroid gland	0	0.11	0.0	0	0.20	0.0	1	0.12	8.6	0	0.09	0.0	1	0.51	2.0
Bone	0	0.07	0.0	0	0.12	0.0	0	0.07	0.0	0	0.05	0.0	0	0.30	0.0
Connective tissue	0	0.13	0.0	1	0.22	4.6	2	0.12	16.1*	0	0.09	0.0	3	0.56	5.3*
Lymphatic, hematopoietic system	2	2.45	0.8	5	4.46	1.1	3	2.66	1.1	4	2.05	1.9	14	11.62	1.2
Non-Hodgkin's lymphoma	0	0.65	0.0	0	1.19	0.0	1	0.71	1.4	2	0.54	3.7	3	3.09	1.0
Hodgkin's disease	1	0.19	5.3	1	0.33	3.0	0	0.18	0.0	1	0.13	7.4	3	0.84	3.6
Multiple myeloma	1	0.46	2.2	1	0.84	1.2	0	0.50	0.0	1	0.39	2.6	3	2.18	1.4
Leukemias	0	1.13	0.0	2	2.06	1.0	2	1.23	1.6	0	0.97	0.0	4	5.39	0.7
Chronic lymphocytic	0	0.61	0.0	1	1.11	0.9	1	0.66	1.5	0	0.52	0.0	2	2.91	0.7
Acute nonlymphocytic	0	0.28	0.0	1	0.54	1.8	1	0.33	3.0	0	0.26	0.0	2	1.42	1.4

+ ICD-7 code = 180.

\* P<.05.

KIDNEY  
FEMALES

TABLE 1E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the kidney, renal pelvis, or ureter 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	4,040			2,155			892			451			4,040		
Person-yr in interval	2,937			5,267			3,214			2,828			14,246		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	32	24.53	1.3	63	45.62	1.4*	31	30.47	1.0	35	31.59	1.1	161	132.20	1.2*
All excluding site of initial cancer	30	23.87	1.3	63	44.36	1.4*	31	29.62	1.0	35	30.70	1.1	159	128.54	1.2*
Buccal cavity, pharynx	0	0.33	0.0	1	0.61	1.7	0	0.41	0.0	0	0.44	0.0	1	1.78	0.6
Lip	0	0.05	0.0	0	0.09	0.0	0	0.06	0.0	0	0.07	0.0	0	0.28	0.0
Tongue	0	0.06	0.0	0	0.10	0.0	0	0.07	0.0	0	0.08	0.0	0	0.31	0.0
Salivary gland	0	0.07	0.0	0	0.13	0.0	0	0.08	0.0	0	0.08	0.0	0	0.36	0.0
Gum, other mouth	0	0.09	0.0	0	0.17	0.0	0	0.12	0.0	0	0.15	0.0	0	0.53	0.0
Pharynx	0	0.06	0.0	1	0.11	9.0	0	0.07	0.0	0	0.07	0.0	1	0.31	3.2
Digestive system	3	8.25	0.4	13	15.25	0.9	11	10.61	1.0	14	11.78	1.2	41	45.88	0.9
Esophagus	0	0.22	0.0	1	0.40	2.5	0	0.29	0.0	0	0.33	0.0	1	1.25	0.8
Stomach	0	2.04	0.0	1	3.54	0.3	0	2.45	0.0	2	2.64	0.8	3	10.66	0.3*
Colon	0	2.58	0.0	5	4.90	1.0	5	3.46	1.4	6	3.95	1.5	16	14.89	1.1
Rectum	1	1.49	0.7	2	2.75	0.7	1	1.86	0.5	2	1.98	1.0	6	8.07	0.7
Liver, biliary	0	0.72	0.0	2	1.40	1.4	1	0.99	1.0	2	1.14	1.8	5	4.25	1.2
Pancreas	2	0.86	2.3	1	1.66	0.6	3	1.17	2.6	2	1.33	1.5	8	5.02	1.6
Respiratory system	2	1.30	1.5	5	2.53	2.0	0	1.72	0.0	3	1.79	1.7	10	7.35	1.4
Nasal cavities, sinuses	0	0.04	0.0	0	0.07	0.0	0	0.05	0.0	0	0.05	0.0	0	0.20	0.0
Larynx	0	0.05	0.0	0	0.10	0.0	0	0.07	0.0	0	0.07	0.0	0	0.29	0.0
Trachea, bronchus, lung	2	1.11	1.8	5	2.16	2.3	0	1.48	0.0	3	1.54	1.9	10	6.29	1.6
Female breast	5	5.15	1.0	7	9.56	0.7	6	6.26	1.0	9	6.22	1.4	27	27.18	1.0
Female genital tract	7	4.78	1.5	7	8.78	0.8	6	5.47	1.1	1	4.98	0.2	21	24.00	0.9
Cervix uteri	3	1.50	2.0	5	2.69	1.9	4	1.58	2.5	0	1.29	0.0	12	7.05	1.7
Corpus uteri	4	1.43	2.8	1	2.67	0.4	2	1.68	1.2	1	1.53	0.7	8	7.31	1.1
Uterus, NOS	0	0.10	0.0	0	0.16	0.0	0	0.11	0.0	0	0.12	0.0	0	0.49	0.0
Ovary, fallopian tubes	0	1.45	0.0	0	2.71	0.0	0	1.72	0.0	0	1.62	0.0	0	7.50	0.0*
Kidney, renal pelvis, ureter	2	0.66	3.0	0	1.26	0.0	0	0.85	0.0	0	0.89	0.0	2	3.66	0.5
Bladder, other urinary	9	0.69	13.1*	22	1.33	16.5*	5	0.93	5.4*	4	1.02	3.9*	40	3.97	10.1*
Melanoma of the skin	0	0.33	0.0	0	0.64	0.0	0	0.42	0.0	0	0.41	0.0	0	1.80	0.0
Eye	0	0.07	0.0	0	0.13	0.0	0	0.08	0.0	0	0.08	0.0	0	0.36	0.0
Brain, central nervous system	3	0.49	6.1*	1	0.92	1.1	1	0.58	1.7	1	0.53	1.9	6	2.53	2.4
Thyroid gland	0	0.17	0.0	0	0.31	0.0	1	0.21	4.7	1	0.23	4.4	2	0.92	2.2
Bone	0	0.04	0.0	0	0.07	0.0	0	0.05	0.0	0	0.05	0.0	0	0.21	0.0
Connective tissue	0	0.08	0.0	0	0.15	0.0	0	0.09	0.0	0	0.09	0.0	0	0.41	0.0
Lymphatic, hematopoietic system	1	1.31	0.8	5	2.50	2.0	1	1.70	0.6	2	1.84	1.1	9	7.35	1.2
Non-Hodgkin's lymphoma	0	0.39	0.0	0	0.75	0.0	1	0.51	1.9	0	0.56	0.0	1	2.21	0.5
Hodgkin's disease	0	0.09	0.0	0	0.17	0.0	0	0.11	0.0	0	0.11	0.0	0	0.49	0.0
Multiple myeloma	0	0.26	0.0	1	0.51	2.0	0	0.35	0.0	0	0.38	0.0	1	1.50	0.7
Leukemias	1	0.55	1.8	4	1.04	3.8*	0	0.71	0.0	2	0.78	2.6	7	3.08	2.3
Chronic lymphocytic	1	0.24	4.2	3	0.45	6.7*	0	0.31	0.0	2	0.36	5.6	6	1.36	4.4*
Acute nonlymphocytic	0	0.16	0.0	0	0.32	0.0	0	0.22	0.0	0	0.24	0.0	0	0.94	0.0

+ ICD-7 code = 180.

\* P<.05.