
Section 15

Various Work-Related Respiratory Conditions

Various Work-Related Respiratory Conditions: Morbidity

Table 15-1. Work-related respiratory illnesses (with days away from work): Estimated number, 1996-2000

	1996	1997	1998	1999	2000
Acute respiratory infections (including common cold)	212	267	193	149	307
Other diseases of upper respiratory tract	169	155	193	320	117
Allergic rhinitis	51	71	-	121	-
Chronic conditions of upper respiratory tract (including chronic sinusitis, pharyngitis)	41	-	-	-	-
Other diseases of upper respiratory tract, unspecified or n.e.c.	42	-	-	167	-
Pneumonia, influenza	79	115	144	197	95
Influenza	-	-	-	63	-
Pneumonia	46	-	72	99	46
Legionnaires' disease	17	-	-	-	-
Chronic obstructive pulmonary disease (COPD) and allied conditions	2,160	1,005	1,097	760	1,083
Bronchitis	738	127	-	171	205
Extrinsic asthma	403	606	154	282	618
COPD and allied conditions, unspecified or n.e.c.	926	173	237	133	171
Extrinsic alveolitis and pneumonitis (including farmers' lung, bagassosis)	87	98	161	145	88
Pneumoconioses	45	-	108	82	70
Coal workers' pneumoconiosis (including anthracosis, black lung, miners' asthma)	-	-	73	-	-
Pneumoconioses, unspecified	18	-	-	-	19
Pneumonopathy	39	-	-	19	101
Byssinosis, mill fever	-	-	-	-	-
Metal fume fever	-	-	-	-	80
Pneumonopathy, unspecified	-	-	-	-	-
Other respiratory system diseases	80	289	182	114	139
Pneumonitis, n.e.c.	-	-	-	18	-
Atelectasis, collapsed lung	18	103	-	-	-
Other respiratory system diseases, unspecified or n.e.c.	47	163	76	83	101
Respiratory system diseases, unspecified	882	357	544	517	679
All respiratory system diseases	3,665	2,270	2,490	2,158	2,591

- indicates no data reported or data do not meet BLS publication guidelines. n.e.c. - not elsewhere classified.

NOTE: Numbers may not sum to totals due to rounding. See appendices for source description and methods.

SOURCE: Bureau of Labor Statistics annual reports of occupational injuries and illnesses.

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Table 15-2. Work-related respiratory illnesses (with days away from work): Median days away from work, 1996-2000

	1996	1997	1998	1999	2000
Acute respiratory infections (including common cold)	5	2	2	5	3
Other diseases of upper respiratory tract	3	3	3	2	2
Allergic rhinitis	3	-	-	1	-
Chronic conditions of upper respiratory tract (including chronic sinusitis, pharyngitis)	-	-	-	-	-
Other diseases of upper respiratory tract, unspecified or n.e.c.	4	3	3	2	-
Pneumonia, influenza	10	9	4	9	23
Influenza	-	-	-	2	-
Pneumonia	10	-	4	10	8
Legionnaires' disease	12	-	-	-	-
Chronic obstructive pulmonary disease (COPD) and allied conditions	6	3	2	5	3
Bronchitis	2	3	-	5	7
Extrinsic asthma	6	3	1	8	3
COPD and allied conditions, unspecified or n.e.c.	9	5	3	5	15
Extrinsic alveolitis and pneumonitis (including farmers' lung, bagassosis)	5	2	5	3	12
Pneumoconioses	14	-	157	81	41
Coal workers' pneumoconiosis (including anthracosis, black lung, miners' asthma)	-	-	190	-	-
Pneumoconioses, unspecified	14	-	-	-	8
Pneumonopathy	15	-	-	3	3
Byssinosis, mill fever	-	-	-	-	-
Metal fume fever	-	-	-	-	3
Pneumonopathy, unspecified	-	-	-	-	-
Other respiratory system diseases	5	5	2	11	2
Pneumonitis, n.e.c.	-	-	-	3	-
Atelectasis, collapsed lung	11	5	-	-	-
Other respiratory system diseases, unspecified or n.e.c.	2	-	5	24	2
Respiratory system diseases, unspecified	2	6	2	1	1
All respiratory system diseases	5	5	2	3	4

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NOTE: See appendices for source description and methods.

SOURCE: Bureau of Labor Statistics annual reports of occupational injuries and illnesses.

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Table 15-3a. Annual average employment: Estimated number (in thousands) by major industry division, 1996-2000

Year	Agriculture	Mining	Construction	Manufacturing	Transportation & Public Utilities	Wholesale & Retail Trade	Finance	Services	Total
1996	1,717	578	5,360	18,461	5,989	28,027	6,746	31,895	98,773
1997	1,765	596	5,637	18,657	6,171	28,584	6,952	33,305	101,667
1998	1,815	589	5,950	18,807	6,307	29,087	7,219	34,624	104,641
1999	1,861	535	6,337	18,538	6,578	29,716	7,400	36,374	107,612
2000	1,912	536	6,623	18,425	6,792	30,305	7,436	37,686	110,065

NOTE: The sum of individual industries may not equal yearly total due to rounding. See appendices for source description and methods.
SOURCE: Bureau of Labor Statistics annual reports of occupational injuries and illnesses.

Table 15-3b. Work-related respiratory illnesses (with days away from work): Estimated number by industry division, 1996-2000

Year	Agriculture	Mining	Construction	Manufacturing	Transportation & Public Utilities	Wholesale & Retail Trade	Finance	Services	Total
1996	-	15	178	840	503	589	161	1,365	3,665
1997	-	33	177	671	163	490	42	667	2,270
1998	-	91	67	681	244	423	162	798	2,490
1999	-	38	59	682	236	381	84	665	2,158
2000	-	37	80	527	222	705	247	750	2,591

- indicates no data reported or data that do not meet BLS publication guidelines.

NOTE: The sum of individual industries may not equal yearly total due to rounding. See appendices for source description and methods.
SOURCE: Bureau of Labor Statistics annual reports of occupational injuries and illnesses.

Table 15-3c. Work-related respiratory illnesses (with days away from work): Estimated rate (per 100,000 workers) by industry division, 1996-2000

Year	Agriculture	Mining	Construction	Manufacturing	Transportation & Public Utilities	Wholesale & Retail Trade	Finance	Services	Total
1996	-	2.6	3.3	4.6	8.4	2.1	2.4	4.3	3.7
1997	-	5.5	3.1	3.6	2.6	1.7	0.6	2.0	2.2
1998	-	15.4	1.1	3.6	3.8	1.5	2.2	2.3	2.4
1999	-	7.1	0.9	3.7	3.6	1.3	1.1	1.8	2.0
2000	-	6.9	1.2	2.9	3.3	2.3	3.3	2.0	2.4

- indicates no data reported or data that do not meet BLS publication guidelines.

NOTE: See appendices for source description and methods.

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Table 15-4. Work-related respiratory conditions: Number of diagnoses related to asbestos or to other occupational exposures, based on physician's judgement, selected occupational and environmental medical clinics, 1991-2000

	Asbestos-related (4,471 patients)		Other (2,021 patients)		
	No.	%	No.	%	Most frequent hazard (No. of cases)
MALIGNANT DISEASES					
Lung cancer	37	0.8	9	0.4	crystalline silica (3)
Nasal/pharyngeal cancer	-	-	2	0.1	wood dust (1), smoke n.o.s. (1)
Laryngeal cancer	7	0.2	3	0.1	various (1 each)
Mesothelioma	10	0.2	-	-	
OTHER CONDITIONS					
Upper airway diseases	4	0.1	457	22.1	
Upper respiratory irritation	2	0.1	440	21.3	indoor air pollutants (132)
Laryngeal disorders (other than irritation or cancer)	2	0.1	12	0.6	indoor air pollutants (4),
Nasal septum perforation	-	-	3	0.1	NaOH (1), NH ₃ gas (1), Cr (1)
Nasal polyps	-	-	2	0.1	petroleum (1), solvents n.o.s. (1)
Lower airway diseases	60	1.3	1,075	52.0	
Asthma & reactive airways dysfunction syndrome	7	0.2	847	41.0	indoor air pollutants (134)
COPD & emphysema & chronic bronchitis	53	1.1	128	6.2	smoke n.o.s. (14), dust n.o.s. (8)
Bronchitis, acute	-	-	16	0.8	welding fume n.o.s. (2), smoke n.o.s. (2)
Bronchitis, n.o.s.	-	-	82	4.0	indoor air pollutants (9)
Bronchiectasis & pneumonia	-	-	2	0.2	indoor air pollutants (1), late effects of traumatic injury (1)
Interstitial inflammatory/fibrotic diseases	3,930	86.5	273	13.2	
Asbestosis	3,921	86.3	-	-	
Silicosis	-	-	145	7.0	crystalline silica (145)
Coal workers' pneumoconiosis	-	-	58	2.8	coal (58)
Pneumoconiosis due to other or mixed dust	7	0.2	18	0.9	crystalline silica (4)
Interstitial pulmonary fibrosis	2	0.1	19	0.9	methyl chloroform (3), paint (3)
Chemical pneumonitis	-	-	15	0.7	chlorine (3), solvents n.o.s. (3)
Hypersensitivity pneumonitis	-	-	18	0.9	cutting oils (3), mold n.o.s. (3)
Pleural disease (without apparent lung disease)	463	10.1	2	0.1	crystalline silica (1), latex gloves n.o.s. (1)
Lung function abnormalities (n.o.s.)	10	0.2	11	0.5	crystalline silica (2), solvents n.o.s. (2)
Abnormal CXR (n.o.s.)	10	0.2	-	-	
Symptoms	8	0.2	57	2.8	
Cough	2	0.1	18	0.9	indoor air pollutants (4)
Shortness of breath	5	0.1	20	1.0	various (1 each)
Chest pain	-	-	9	0.4	various (1 each)
Hoarseness	-	-	7	0.3	indoor air pollutants (2)
Nosebleeds	-	-	2	0.1	glutaraldehyde (1), chromium n.o.s. (1)
Hemoptysis	1	0.1	1	0.1	cutting oils (1)
Non-specific respiratory disorders	4	0.1	21	1.0	indoor air pollutants (2)
Chemical poisonings	-	-	70	3.4	
Metal fume fever	-	-	16	0.8	zinc (5), metal fumes n.o.s. (5)
Toxic effects of carbon monoxide or cyanides	-	-	21	1.0	carbon monoxide (13)
Toxic effects of gas/fumes/vapors/misc. chemicals (excl. lead, other heavy metals, pesticides, solvents)	-	-	32	1.5	ethylene oxide (6)
Hypoxia	-	-	1	0.1	Freon® (1)
Selected miscellaneous conditions	-	-	87	4.2	
Positive PPD skin test	-	-	83	4.0	tuberculosis (83)
Sarcoidosis	-	-	4	0.2	cleaning materials n.o.s. (2)
TOTAL	4,543	100.0	2,067	100.0	

- indicates no cases n.o.s. - not otherwise specified

NOTE: In the Symptoms and the Chemical Poisonings categories, all diagnoses in the subcategories shown have been included as "respiratory" in this table, though some may not have been respiratory. In addition to the diagnoses shown in this table, there were 17 non-respiratory diagnoses related to asbestos and 5,413 non-respiratory diagnoses related to other occupational hazards. See appendices for source description.

SOURCE: AOEC Occupational and Environmental Disease Database.

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Table 15-5. Most frequent hazards associated with respiratory diagnoses, patients without asbestos-related diagnoses, selected occupational and environmental medical clinics, 1991-2000

Respiratory hazards	Number	Percent
Indoor air pollutants	320	12.8
Crystalline silica	171	6.8
Solvents n.o.s.	128	5.1
Dust n.o.s.	94	3.8
Smoke n.o.s.	84	3.4
Coal	77	3.1
Isocyanates n.o.s.	72	2.9
Welding n.o.s.	59	2.4
Paint	55	2.2
Chemicals n.o.s.	48	1.9
Mold	47	1.9
Cutting oils	46	1.8
Formaldehyde	36	1.4
Latex, natural rubber	36	1.4
Ammonia solution n.o.s.	29	1.2
Glutaraldehyde	27	1.1
Chlorine	26	1.0
Metal fumes n.o.s.	23	0.9
Toluene diisocyanate	22	0.9
Toluene	22	0.9
Epoxy resins	21	0.8
Methyl chloroform (1,1,1-trichloroethane)	19	0.8
Wood dust n.o.s.	19	0.8
Hydrocarbons n.o.s.	18	0.7
Methyl ethyl ketone	18	0.7
Glues n.o.s.	18	0.7
Cleaning materials n.o.s.	17	0.7
Acids, bases, oxidizers n.o.s.	17	0.7
Man-made mineral fibers	16	0.6
Carbon monoxide	16	0.6
Diesel exhaust	16	0.6
Lubricants n.o.s.	15	0.6
Metal dust n.o.s.	15	0.6
Sulfuric acid	14	0.6
Bleach	12	0.5
Xylene	12	0.5
Perchloroethylene	12	0.5
Cigarette smoke	12	0.5
Sodium hydroxide	11	0.4
Pesticides n.o.s.	11	0.4
Hydrochloric acid	10	0.4
Flour n.o.s.	10	0.4
All others	753	30.1
TOTAL	2,504	100.0

n.o.s. - not otherwise specified

NOTE: The hazards in this table relate to the 2,021 patients with respiratory (excluding asbestos-related) diagnoses shown in Table 15-4. Percentages may not total to 100% due to rounding. See appendices for source description and methods.

SOURCE: AOEC Occupational and Environmental Disease Database.

