



# Mesothelioma in Northeastern Minnesota

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Commissioner of Health



# Cancer mystery ignored

Rare and incurable, mesothelioma is striking men in northeastern Minnesota at a rate far higher than average. But a state inquiry into the reason for the high rate of asbestos-related cancer has never been launched — despite years of warnings and concern.



Thursday  
FEBRUARY 20, 2003  
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# Star Tribune

NEWSPAPER OF THE TWIN CITIES

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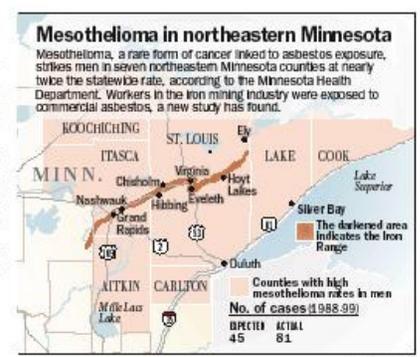
## Taconite may not be culprit

...er to asbestos

...igh taconite can contain aske minerals, researchers said. Commercial asbestos — once a fire retardant widely used in insulation and boiler rooms and in — is likely to blame.

...port, which was authorized by statute, has taken five years and complete. A draft of its executive ...y was released only after the ibune requested it under the ablic records law.

...the study is unlikely to settle the over whether inhaling taconite :auses disease.



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# Mesothelioma Statistics for MN

- Ave. of 65 new cases per year (out of a total of 23,500 new cancers of all types)
- Sex: 78% of cases in males
- Age Range: 26 - 97
- Age at Diag: Ave = 70.0, median = 72
- Survival: 75% Mortality at 1 year
- Pleura = 86%; peritoneum = 12%
- Rate in NE Minnesota Two-Folder Higher in Men

# MDH Reports

- 1997: Cancer Rates and Trends in Northeastern Minnesota
- 2003: Exposures to Commercial Asbestos in Northeastern Minnesota Iron Miners Who Developed Mesothelioma
- 2007: Mesothelioma in Northeastern Minnesota and Two Occupational Cohorts
- <http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/index.html>

# Demographic Characteristics of 59 Mining Cases

Age	No.
40-49	1
50-59	5
60-69	19
70-79	23
80+	11
Range 47-90	
Ave. = 71.4	

Site	No.
Pleural	57
Peritoneal	2

Gender	No.
Male	59
Female	0

Region	No.
Northeast Minnesota	44
Other Minnesota	15

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- **Work History: Length of Employment and Latency for 58\* Mining Cases**

### Length of Employment

Years	No.	%
<1	14	24.1
1-5	16	27.6
6-9	2	3.4
10-29	9	15.5
≥30	17	29.3

### Latency (1<sup>st</sup> job-Dx)

Years	No.	%
<30	1	1.7
30-39	12	20.7
40-49	24	41.4
50-59	16	27.6
60-69	5	8.6

*\*Work history for latest (59<sup>th</sup>) case not yet ascertained*

# Work History by Company for 58 Mining Cases

Company (employees)	No.
Reserve (10,813)	9
Inland (618)	0
US Steel (34,680)	24
Jones & Laughlin (6,251)	3
Hanna (15,826)	6
Pickands Mather (18,506) (Erie/Hibbing)	28
Eveleth (2,269)	3

- Totals to 73 due to 13 cases working at 2 or more co.
- Employees counted for each company worked
- Work history for latest (59<sup>th</sup>) case not yet ascertained

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- # Taconite Miner Health Studies Under Development

- Case-control study of mesothelioma
  - To include assessments of both silica dust and commercial asbestos
  - Will include true “controls”
- Respiratory morbidity screening study of current/past workers and spouses
  - Chest X-rays for pneumoconioses
  - Pulmonary function tests
- Cohort mortality follow-up of 72,000 miners
  - Examine all causes of death compared to all MN

# Updates and Further Information

- University of Minnesota School of Public Health:  
Minnesota Taconite Workers Lung Health Partnership
  - Jeff Mandel, MD, MPH, Prin. Investigator 612-626-9308
  - <http://www.sph.umn.edu/lunghealth/home.html>
- Minnesota Department of Health
  - Alan Bender, DVM, PhD, 651-201-5900
  - Allan Williams, MPH, PhD, 651-201-5900
  - <http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/meso.html>