

(*Chest*. 2004;126:1431-1438.)

© 2004 [American College of Chest Physicians](#)

Trends and Occupational Associations in Incidence of Hospitalized Pulmonary Sarcoidosis and Other Lung Diseases in Navy Personnel*

A 27-Year Historical Prospective Study, 1975–2001

Edward D. Gorham, MPH, PhD; Cedric F. Garland, DrPH;
Frank C. Garland, PhD; Kevin Kaiser, MPH;
William D. Travis, MD, FCCP and Jose A. Centeno, PhD

* From the Naval Health Research Center (Drs. Gorham and F. C. Garland), San Diego, CA; Department of Family and Preventive Medicine (Dr. C. F. Garland), University of California, San Diego, La Jolla, CA; GEO-CENTERS, Inc. (Mr. Kaiser), Clinton, MD; and Armed Forces Institute of Pathology (Drs. Travis and Centeno), Washington, DC.

Correspondence to: Edward D. Gorham, MPH, PhD, Naval Health Research Center, PO Box 85122, San Diego, CA 92186-5122; e-mail: gorham{at}nhrc.navy.mil

Study objectives: This study examines long-term trends in incidence rates of hospitalized pulmonary sarcoidosis in a large cohort of Navy personnel, and evaluates the possible relationship of sarcoidosis with occupation.

Design: Incidence rates of first hospitalizations were determined for black and white male Navy enlisted personnel on active duty from 1975 to 2001.

Setting: Navy service includes a potential for exposure to a variety of substances, including nonskid coatings used on ship decks that may be aerosolized during removal. Particulate matter containing aluminum, titanium, and silicates has been identified in nonskid samples. Specific occupational groups may have had greater exposure potential than others.

Patients or participants: Hospitalized cases included sarcoidosis (n = 674), asthma (n = 3,536), emphysema and chronic bronchitis (n = 1,103), respiratory conditions due to fumes and vapors (n = 61), and pneumoconiosis (n = 51) observed in 9,953,607 person-years of active-duty service.

Interventions: None. However, improvements were made in personal protective gear and other countermeasures to prevent or limit respiratory exposures during service.

Measurements and results: Annual overall hospitalized sarcoidosis incidence rates per 100,000 were 24.9 for black men and 3.5 for white men (black/white ratio of 7.1, p < 0.0001). Annual incidence rates in blacks

This Article

- ▶ [Full Text](#)
- ▶ [Full Text \(PDF\)](#)
- ▶ [Submit a response](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me when eLetters are posted](#)
- ▶ [Alert me if a correction is posted](#)
- ▶ [Citation Map](#)

Services

- ▶ [Email this article to a friend](#)
- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in ISI Web of Science](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Add to My Personal Article Archive](#)
- ▶ [Download to citation manager](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Gorham, E. D.](#)
- ▶ [Articles by Centeno, J. A.](#)

declined markedly, particularly since 1989, but the black/white ratio remained high through 1999. Occupational associations were present in blacks and whites. Black ship's servicemen (23 cases) and aviation structural mechanics specializing in structures (12 cases) had more than twice the expected incidence rate compared to all blacks, and white mess management specialists (15 cases) had twice the overall white incidence rate.

Conclusions: There was a steep decline in incidence of hospitalized sarcoidosis in blacks in the Navy. Occupational associations suggest the possibility that a dust or moisture-related lung disease may have been erroneously classified as sarcoidosis, or, alternatively, that sarcoidosis had a previously unrecognized occupational component.

Key Words: epidemiology • military populations • occupation • occurrence • sarcoidosis

[HOME](#) [HELP](#) [FEEDBACK](#) [SUBSCRIPTIONS](#) [ARCHIVE](#) [SEARCH](#) [TABLE OF CONTENTS](#)

[Copyright © 2004 by the American College of Chest Physicians.](#)