

HALON (1211, 1301, AND RELATED FIRE SUPPRESSION AGENTS)

EXPOSURE IN NAVY AVIATION:

SHORT- AND LONG-TERM HEALTH EFFECTS

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Halon fire suppression systems—primarily Halon 1211 and Halon 1301—have been widely used in Navy aviation for:

- Aircraft fire suppression systems
- Hangar and shipboard fire suppression
- Emergency equipment, crash and salvage firefighting systems
- Portable extinguishers used on flight lines and flight decks

Halon is extremely effective at extinguishing fires but can create hazardous atmospheres for personnel when discharged in enclosed or poorly ventilated environments.

Exposure occurs through:

- Inhalation of Halon vapors or decomposition products
- Skin or eye contact with cold Halon discharge
- Secondary exposure during system testing, leaks, or accidental discharges

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SHORT-TERM (ACUTE) HEALTH EFFECTS

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****1. Central Nervous System (CNS) Effects****

Halon acts as a CNS depressant. Acute symptoms may include:

- Dizziness
- Headache
- Confusion
- Impaired coordination

- Drowsiness or slowed reaction time
- Nausea

High level exposure may lead to:

- Loss of consciousness
- Vertigo
- Fainting

****2. Cardiac Sensitization (Serious Acute Effect)****

Halon exposure—especially at higher concentrations—can increase the heart's sensitivity to adrenaline. This may cause:

- Irregular heartbeat
- Palpitations
- Ventricular arrhythmias (potentially life-threatening)

This risk is greater during physical exertion, fear, or stress.

****3. Respiratory Irritation****

Although Halon itself is not highly irritating, its fire byproducts (created when discharged on flames) can be hazardous:

- Hydrogen fluoride
- Hydrogen bromide
- Carbonyl halides

These can cause:

- Burning throat
- Coughing
- Shortness of breath

****4. Skin and Eye Effects****

Cold discharge from Halon can cause:

- Frostbite-like skin burns
- Redness or irritation
- Eye watering or mild irritation

****5. Asphyxiation Risk****

Halon displaces oxygen. In enclosed aircraft or shipboard compartments, it may cause:

- Rapid disorientation
- Blue lips/fingernails
- Loss of consciousness

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LONG-TERM (CHRONIC) HEALTH EFFECTS

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Halon itself is not classified as a carcinogen, but chronic occupational exposure—especially in poorly ventilated spaces—has been associated with:

****1. Chronic Neurological Effects****

Repeated CNS depression exposures may lead to:

- Memory problems
- Difficulty concentrating
- Chronic headaches
- Fatigue
- Mood disturbances

****2. Persistent Cardiac Sensitization****

Some individuals exposed to Halon experience ongoing:

- Palpitations

- Sensitivity to stimulants
- Exercise intolerance

****3. Respiratory Conditions****

While Halon alone is not strongly toxic, long-term exposure to its fire decomposition products may contribute to:

- Chronic airway irritation
- Cough
- Worsening asthma symptoms

****4. Liver and Kidney Stress****

Prolonged exposure to halogenated fire suppression agents may cause:

- Mild liver enzyme elevations
- Kidney irritation

****5. Chemical Sensitivity****

Some individuals develop long-term sensitivity to:

- Fumes
- Cleaning chemicals
- Fire suppression aerosols

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NAVY AVIATION ROLES AT HIGHEST RISK

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Personnel at elevated risk of Halon exposure include:

- Aviation Firefighters (Crash & Salvage / ARFF)
- Aviation Boatswain's Mates (ABH/ABE)
- Flight deck and hangar personnel

- Aircraft maintainers working around fire suppression systems
- Personnel inside aircraft or shipboard spaces when Halon systems discharged
- Damage Control teams involved in fire response or system testing

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VA DISABILITY CLAIM WRITEUP EXAMPLE

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****Statement in Support of Claim: Halon Exposure – Navy Aviation****

I am submitting this statement in support of my claim for service-connected disability due to occupational exposure to Halon fire suppression agents during my service in the United States Navy.

From [YEAR] to [YEAR], I served as an Aviation [RATE/MOS] assigned to the USS [SHIP] and various naval air stations. My duties regularly placed me in environments where Halon 1211 and Halon 1301 systems were tested, maintained, or discharged. This included flight deck operations, hangar spaces, aircraft fire suppression systems, and emergency responses. I was exposed to Halon during system releases, training evolutions, accidental discharges, and leak events in enclosed compartments.

During these exposures, proper protective gear and ventilation were not always available. I frequently inhaled Halon vapors and decomposition fumes, experiencing symptoms such as headaches, dizziness, confusion, nausea, and shortness of breath. On several occasions, I felt lightheaded or disoriented after Halon system releases.

Since leaving the Navy, I have continued to experience chronic health issues consistent with long-term exposure to Halon and its byproducts, including persistent headaches, difficulty concentrating, memory problems, episodes of heart palpitations, fatigue, and respiratory irritation. Medical evaluations have documented [NEUROLOGICAL SYMPTOMS / CARDIAC IRRITABILITY / RESPIRATORY CONDITION / OTHER], all of which are known effects of repeated exposure to halogenated fire suppression chemicals.

Given the nature of my duties, the frequency of exposure, the lack of adequate protective measures, and the persistence of my symptoms after service, I believe my medical conditions are directly related to my occupational exposure to Halon during Navy aviation service. I respectfully request that the VA recognize these conditions as service-connected.

Signed,

[Veteran Name]

[Date]

