

# **“Cancer Presumption Claims”**

## **The Law and Science Behind Presumptive Cancer Claims and Rebutting the Same**

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# Legal Standards

## 1. Legal Standards

### a. Labor Code §3212.1

Cancer Presumption; Firefighters, Peace Officers

### b. Case Law

*City of Long Beach v. WCAB (Garcia) (2005) 126 Cal. App. 4<sup>th</sup> 298,  
23 Cal. Rptr. 3d 782, 70 Cal. Comp. Cases 109*

*Faust v. City of San Diego (2003) 68 Cal. Comp. Cases 1822, 1829-1833  
(Appeals Board en banc decision)*

*City of San Diego v. WCAB (Holladay) (2005) 70 Cal. Comp. Cases 241, 242-244  
(Writ denied)*

*Fain v. WCAB (2008) 73 Cal. Comp. Cases 1543, 1545-1548  
(Court of Appeal decision unpublished)*

*Borges v. WCAB (2010) 75 Cal. Comp. Cases 1281, 1286-1288  
(Writ denied)*

*Gomez v. WCAB (2006) 71 Cal. Comp. Cases 66, 67-68  
(Writ denied)*

*Dennis Joy v. WCAB (2009) 74 Cal. Comp. Cases 871  
(Writ denied)*

*County of Ventura v. WCAB (2010) 75 Cal. Comp. Cases 513  
(Writ denied)*

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## Legal Standards

### 2. Applies to whom:

- a. Firefighters (Federal, State, local)  
Full-time, Part-time, or Volunteer
- b. Peace Officers – primarily engaged in active law enforcement  
Not dispatchers, clerks, etc.
- c. Officers of Emergency Services (OES)

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## Threshold Requirements of when the presumption applies

1. Cancer, including leukemia, that develops or manifests itself during service.
2. The member must demonstrate exposure to a known carcinogen identified by the IARC, or as defined by the Administrative Director.
3. If both 1 and 2 above are established, there is a presumptive injury.

Remember, this is a rebuttable presumed injury, not a conclusively presumptive injury.” Hence, it can be rebutted.

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# Threshold Requirements (continued)

## Safety Members' Burden

1. The safety member must establish exposure to a known carcinogen as identified by International Agency for Research for Cancer (IARC) (see pages 12-13 re: carcinogen science and pages 14-17 re: IARC), or as identified by the Administrative Director.
2. Failure to identify carcinogen exposure means no application of the cancer presumption (see *Gomez* and *Faust* cases). *Gomez* is a denied Writ, so technically, is not a citable case, yet can be used for guidance. In *Gomez*, neither the AME, nor AQME reports showed clear exposure to a carcinogen. *Faust* is citable as an en banc decision.

Note: Per *Faust* case, minimal level of exposure is sufficient (just hours or days). Example, filling a city vehicle with gasoline results in exposure to benzene, a known carcinogen (see *Garcia* case).

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## Threshold Requirements (continued)

**Evidentiary burden shifts to defendant** to rebut the presumption after safety member meets threshold requirement.

The defendant must show:

- Establish the primary site of the cancer, and
- By **evidence** affirmatively establish there is no reasonable link between the carcinogen and the cancer.
- A mere lack of medical evidence linking the carcinogen to the cancer is **insufficient** to rebut the presumption (see *Faust v. City of San Diego* and *City of Long Beach v. WCAB (Garcia)*)

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# Threshold Requirements (continued)

## Practice Tip:

*Carcinogen exposure??? Facts! Facts! Facts!*

Rely on very detailed statements, deposition, PQME reports, treater reports, medical records and other documents to see if the safety member established exposure. The member must identify the specific carcinogens, not just a statement of exposure to “carcinogens” or “toxins,” etc.

Think tactfully --- that is, be careful not to overly clean up the record. Thus, if during the course of a Panel QME the applicant or PQME fails to clearly identify exposure to a known carcinogen, you may consider going to the WCAB based on that report. You might consider timing of the deposition and the PQME examination. Sometimes I allow the PQME to happen first, then take the deposition afterwards. This is a very fact driven analysis. If I do not feel the applicant has met the burden, then I cancel the deposition and move to the WCAB.

Factual record development -- Use careful and specific questioning of any and all exposure to known carcinogens, especially if a cancer (such as prostate, lung, etc.) which have voluminous and substantial studies which show that specific IARC carcinogens may not be linked to the cancer (second hand smoke does not cause prostate cancer).

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# Latency Period

- Medical Evidence Required:

1. Did exposure pre-date employment?

Example: If medical studies establish that 20 years of exposure is necessary before the type of cancer in question can develop and the member has only worked 5 or 10 years - -- then the presumption may be rebutted (see *Dennis Joy* case).

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- For solid tumors, this latency period is on the order of 20+ years (smoking is a good example)
- A somewhat shorter latency period implies a heavy intense exposure, and a clear association between the specific carcinogen and the specific cancer should be apparent

*-Presented by Thomas S. Allems, M.D., M.P.H.*





## Application of Presumption After Retirement

- As of 9/30/10, the presumption now extends for 3 months for every year of service, up to a total of 120 months, or 10 years.
- Prior to 9/30/10, the presumption extended up to 5 months.

Whether the 10 year extension applies retroactively has not been determined.

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## Other Case Law

### **Breast Cancer**

*County of Ventura v. WCAB (Bastian)*

The applicant described exposure to benzene and diesel fuel. The AME opined the breast cancer was non-industrial because the member had an abnormal BRCA-2 gene.

The WCAB found that the AME's opinion was not substantial evidence. Mere pre-disposition is insufficient. The AME must show actual studies that the carcinogen was not linked to the cancer in question. (*Garcia*)

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## Other Case Law

### Brain Tumor

*Fain v. WCAB (Court of Appeal unpublished case)*

34-year police officer

AME assumed applicant may have been exposed to “**toxic**” chemicals. Yet, the AME found no evidence of exposure to any known “carcinogens.”

Hence, there was a finding that the threshold burden by the safety member was not met. There was no medical evidence establishing a causal relationship between the member’s employment and tumor. The applicant failed to meet his burden.

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# Carcinogen

- a substance (chemical, drug, infectious organism or physical agent) capable of causing cancer.
- there are various theories of carcinogenesis, but the general principle is that a series of genetic mutations develops in a cell line and in other cells involved in surveillance, regulation and repair processes that then allow the mutated cell to grow uncontrollably leading to a diagnosable cancer.
- this process is usually spontaneous and “multifactorial”, due to a poorly understood confluence of genetic susceptibility, lifestyle and dietary / environmental influences.
- a diagnosis of cancer does not mean that a causal carcinogen is identifiable or must be identified.

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## Carcinogen (continued)

- with the exception of smoking related cancers and skin cancers due to solar radiation, most cancers in the general population are not linked to a carcinogen, although there are many theories about low level environmental carcinogens playing a role in some increasingly common cancers – breast, prostate, non-Hodgkin’s lymphoma, etc.
- in those cancers that are due to an identified carcinogen, the culprit exposure has almost always occurred over a long period of time (smoking is the best example)
- a one time exposure to a carcinogen leading to cancer is rare – accidental high dose ionizing radiation exposure leading to acute leukemia is an example

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## International Agency for Research on Cancer

The International Agency for Research on Cancer (IARC) under the auspices of the WHO publishes monographs and updates that analyze the state of the scientific, toxicological and epidemiological literature on chemical, physical and biological agents, mixtures and exposures, and lifestyle and occupational factors and rank them with respect to their potential to cause cancer.

Carcinogens are ranked by IARC based on associations with specific cancers in humans

<http://monographs.iarc.fr/ENG/Classification/ClassificationsGroupOrder.pdf>

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## IARC group 1-known human-carcinogens

### Examples of Group 1 carcinogens and target organs

- Asbestos – lung cancer and mesothelioma
- Ionizing radiation – bone, lung, liver, thyroid, breast cancers and leukemia
- Silica – lung
- Arsenic – skin, lung
- Cadmium – lung
- Benzene – leukemia (acute myeloid)
- Diesel engine exhaust – lung, bladder
- Alcoholic beverages – liver and others
- Hepatitis C infection – liver
- Postmenopausal estrogen therapy – breast, uterus

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## IARC group 2A-probable human-carcinogens

### Examples of Group 2A carcinogens

- Various chemotherapy drugs - bone marrow
- Human papilloma virus – cervix, tonsils
- Various polycyclic aromatic hydrocarbons present in products of combustion – lung, bladder and skin
- Polychlorinated biphenyls (PCBs) – liver, biliary tract
- Styrene
- Trichloroethylene – liver, lymphoma, kidney
- Various dyes – bladder

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## IARC group 2B-possible human-carcinogens

### Examples of Group 2B carcinogens

- Lead and other metals
- Variety of antibiotics, antifungal and antiviral agents
- Phenobarbital and oxazepam and other drugs
- Various polycyclic aromatic hydrocarbons present in products of combustion
- Some chlorinated hydrocarbons
- Various chemicals used in the plastics and rubber industry
- Various dyes, nitro compounds and some pesticides

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## Firefighter exposures

- It is accepted that firefighters, in the usual course of their firefighting duties, are exposed to numerous toxins and recognized human carcinogens (known and suspected) that are unavoidably present in the general products of combustion – smoke, particulates, vapors and fumes (including off-gassing after the fire when SCBAs were often removed).
- Increased attention to SCBA use has decreased exposure levels
- Depending on the specific compound being consumed by fire (e.g. plastic, preserved wood, stored chemicals, asbestos containing building materials, etc.), other carcinogens may be elaborated that are more specific to that particular fire.

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# Firefighter Exposures

- asbestos
- polyaromatic hydrocarbons
- benzo(a)pyrene
- benzene
- formaldehyde
- arsenic
- dioxins
- polychlorinated biphenyls
- vinyl chloride

## Most Common Firefighter Carcinogens

- Diesel engine exhaust – IARC group 1 associated with lung (and bladder) cancer
- Asbestos – IARC group 1 associated with lung cancer and mesothelioma
- Benzene – IARC group 1 associated with acute myeloid leukemia

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## IARC – Firefighting is Ranked Group 2B

### 6.1 Cancer in humans

There is *limited evidence* in humans for the carcinogenicity of occupational exposure as a firefighter.

### 6.2 Cancer in experimental animals

There is *inadequate evidence* in experimental animals for the carcinogenicity of occupational exposure as a firefighter, since no data were available to the Working Group.

### 6.3 Overall evaluation

Occupational exposure as a firefighter is *possibly carcinogenic to humans*

<http://monographs.iarc.fr/ENG/Monographs/vol98/mono98-7.pdf>

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## Peace Officers

There are scant epidemiological data on peace officers and cancer because the exposures on the job are similar to everyday environmental exposures off the job.

Commonly cited exposure scenarios:

- fueling a vehicle (potential benzene and fuel vapor exposure)
- working in older buildings (potential exposure to low level airborne asbestos)
- handling contraband
- using a radar device
- attending firing range
- cleaning weapons
- working in traffic (vehicle exhaust exposure)
- attending fire scenes peripherally (products of combustion)

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## What to look for in medical reports

- The physician should be trained, credentialed and experienced in evaluating cancer cases and familiar with the cancer presumption issues
- The medical report should be a medical report, not a legal opinion
- We are all exposed to asbestos, vehicular exhaust, polyaromatic compounds, etc. in the environment, food, air and via personal habits
- Firefighter exposures are usually reasonably inferred assuming the person has been involved in active fire suppression – history of SCBA use, attendance at typical range of fires, etc. should be documented.

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## What to look for in medical reports

- The association between the specific job / exposure circumstances and the specific cancer should be clearly discussed and supported by citations from the medical literature
- There is a wealth of firefighter morbidity and mortality data that should be appropriately cited and analyzed in total.
- The medical report should provide a scientific analysis of the case, to which the trier of fact applies the relevant presumption issues and determines if the report is enough to rebut the presumption or not

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## The medical report should cover:

- A detailed exposure history appropriate to the occupation for firefighters this means a discussion of their work actually fighting fires, SCBA use etc.
- general medical, social and family histories
- smoking and alcohol use history (both are carcinogens)
- past occupational history and hobby history
- a review of the epidemiological literature with respect to the specific cancer
- a review of the occupational epidemiological literature specific to firefighters and the specific cancer, with statistical significance of the cited studies addressed
- a summary science-based analysis of whether the exposure history in the individual was of the intensity, duration and specificity to logically be considered a causal factor in their cancer, with reasonable medical probability

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