

Presumptive Causation?

BURDEN AND STANDARDS OF PROOF

(c) BURDENS AND STANDARD OF PROOF.—

(1) IN GENERAL.—The burden of proof shall be on the party filing the action to show one or more relationships between the water at Camp Lejeune and the harm.



BURDEN AND STANDARDS OF PROOF

(2) STANDARDS.—To meet the burden of proof described in paragraph (1), a party shall produce evidence showing that the relationship between exposure to the water at Camp Lejeune and the harm is—



BURDEN AND STANDARDS OF PROOF

(A) sufficient to conclude that a causal relationship exists; or

(B) sufficient to conclude that a causal relationship is at least as likely as not.

COMPARATIVE Causation

- Exposure at Lejeune - 30 days
- Work in Chemical Industry – 30 years
- Exposed to same Chemicals.
- Recovery?

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA



ATSDR

AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY



EQUIPOISE

Epidemiological Standard



ATSDR Classifications

Sufficient - evidence is sufficient to conclude that a causal relationship exists.

Equipoise and Above - evidence is sufficient to conclude that a causal relationship is at least as likely as not, but not sufficient to conclude that a causal relationship exists.



ATSDR Classifications

Below Equipoise - evidence is not sufficient to conclude that a causal relationship is at least as likely as not or is not sufficient to make a scientifically informed judgment.

Against - evidence suggests the lack of a causal relationship.



Volatile Organic Compounds (VOCs)

Are a group of chemicals that generally include solvents and fuels that evaporate easily. TCE and PCE are examples of VOCs.

(VOCs) were found in two of the eight water treatment plants that provided drinking water at Camp Lejeune.



Content source: [Agency for Toxic Substances and Disease Registry](#)

Toxic Organic Compounds

Benzene

T.C.E. (Trichloroethylene)

P.C.E

(Tetrachloroethylene/Perchloroethylene)

Vinyl Chloride



The Nations Law Firm Tier 1

Kidney Cancer	Kelsh 2010; Scott (EPA) 2011; Karami (NCI) 2012	TCE	Sufficient
Non-Hodgkin Lymphoma	Kelsh 2010; Scott (EPA) 2011; Karami (NCI) 2013	TCE, PCE, Benzene	Sufficient
Leukemias	Alexander 2006; Karami 2013; Khalade 2010; Vlaanderen 2011 & 2012	Benzene	Sufficient
Liver Cancer	Alexander 2007; Scott (EPA) 2011; Boffetta 2003	TCE, Vinyl Chloride	Sufficient
Bladder Cancer	Vlaanderen (IARC) 2014	PCE	Sufficient
Major Cardiac Birth Defects	Gilboa 2012; Aschengrau 2009	TCE	Sufficient



The Nations Law Firm Tier 1 continued

Parkinson Disease	Goldman 2012; McDonnell 2003	TCE	Equipoise and above
Kidney Disease	Calvert 2011; Bove 2014	TCE, PCE	Equipoise and above
Multiple Myeloma	Alexander 2006; Karami (NCI) 2013	TCE, Benzene	Equipoise and above
Systemic Sclerosis/ Scleroderma	Cooper 2009; Zhao 2016	TCE	Equipoise and above

Tier 1 Injuries

Ranked by focus groups of qualified
North Carolina Jurors

1. Liver Cancer
2. Kidney Cancer
3. Leukemia
4. Bladder Cancer
5. Kidney Disease



Tier 1 Injuries

Ranked by focus groups of qualified
North Carolina Jurors

6. Non-Hodgkin Lymphoma
7. Multiple Myeloma
8. Cardiac Birth Defects
9. Parkinson's Disease
10. Scleroderma



Liver Cancer

TOXINS: TCE, Vinyl Chloride

ATSDR Studies reviewed:

Boffetta 2003

Alexander 2007

Scott (EPA) 2011

ATSDR Conclusion:

SUFFICIENT evidence for causation.



Kidney Cancer

TOXIN: TCE

ATSDR Studies reviewed:

Kelsh 2010; Scott (EPA) 2011;
Karami (NCI) 2012

ATSDR Conclusion:

SUFFICIENT evidence for causation.



Leukemia (All Types)

Leukemia is a type of cancer that starts in the blood-forming cells of the bone marrow.

TOXINS: Benzene

ATSDR Studies reviewed:

Alexander 2006

Karami 2013

Khalade 2010

Vlaanderen 2011 & 2012

ATSDR Conclusion:

SUFFICIENT evidence for causation.



Bladder Cancer

TOXINS: PCE

ATSDR studies reviewed:
Vlaanderen (IARC) 2014

ATSDR Conclusion:
SUFFICIENT evidence for causation.



Kidney Disease

Occurs when chronic kidney disease reaches an advanced stage, ultimately resulting in end stage renal failure. In end-stage renal failure, kidneys no longer function to support the body's needs.

TOXINS: TCE, PCE

ATSDR studies reviewed:

Calvert 2011

Bove 2014

ATSDR Conclusion:

EQUIPOISE AND ABOVE evidence for causation.



Non-Hodgkin Lymphoma

Non-Hodgkin lymphoma is a cancer that starts in white blood cells called lymphocytes, which are part of the body's immune system.

TOXINS: TCE, PCE, Benzene

ATSDR studies reviewed:

Kelsh 2010

Scott (EPA) 2011

Karami (NCI) 2013

ATSDR Conclusion:

SUFFICIENT evidence for causation.



Multiple Myeloma

Multiple myeloma is a cancer of plasma cells which are found in the bone marrow and are an important part of the immune system.

TOXINS: TCE, Benzene

ATSDR studies reviewed:

Alexander 2006

Karami (NCI) 2013

ATSDR Conclusion:

EQUIPOISE AND ABOVE evidence for causation.



Cardiac Birth Defects

TOXINS: TCE

ATSDR studies reviewed:

Aschengrau 2009

Gilboa 2012

ATSDR Conclusion:

SUFFICIENT evidence for causation.



Parkinson's Disease

Parkinson's disease is a brain disorder that causes unintended or uncontrollable movements, such as shaking, stiffness, and difficulty with balance and coordination.

TOXINS: TCE

ATSDR studies reviewed:
McDonnell 2003
Goldman 2012

ATSDR Conclusion:
EQUIPOISE AND ABOVE evidence for causation.



Scleroderma

Scleroderma (literally “hard skin”) is an umbrella term for a family of rare diseases with the common factor being abnormal thickening (fibrosis) of the skin.

TOXINS: TCE

ATSDR studies reviewed:

Cooper 2009

Zhao 2016

ATSDR Conclusion:

EQUIPOISE AND ABOVE evidence for causation.



VA Presumptive Qualifiers (Health Care)

Bladder Cancer	PCE
Breast Cancer	TCE, PCE, DCE, Vinyl Chloride
Esophageal Cancer	TCE, PCE
Female Infertility	TCE, PCE
Hepatic Steatosis	Carbon Tetrachloride
Kidney Cancer	TCE
Leukemia	Benzene
Lung Cancer	TCE
Miscarriage	TCE
Multiple Myeloma	TCE, Benzene
Myelodysplastic Syndromes	Benzene
Neurobehavioral Effects	TCE
Non-Hodgkin Lymphoma	TCE, PCE, Benzene
Renal Toxicity	TCE, PCE
Scleroderma	TCE



VA Presumptive Health Care Qualifiers and ATSDR Rated

Bladder Cancer	PCE
Kidney Cancer	TCE
Leukemia	Benzene
Multiple Myeloma	TCE, Benzene
Non-Hodgkin Lymphoma	TCE, PCE, Benzene
Renal Toxicity	TCE, PCE
Scleroderma	TCE

VA Health Care Presumptives vs ATSDR

Hepatic Steatosis	ATSDR – No 2017 rating	VA Presumptive
Lung Cancer	ATSDR – No 2017 rating	VA Presumptive
Miscarriage	ATSDR – No 2017 rating	VA Presumptive
Neurobehavioral Effects	ATSDR – No 2017 rating Studied by Institute of Medicine	VA Presumptive
Female Infertility	ATSDR – No 2017 rating	VA Presumptive
Breast Cancer (male and female)	ATSDR – Below Equipoise	VA Presumptive
Esophageal Cancer	ATSDR – Below Equipoise	VA Presumptive

VA Presumptive Qualifiers (Disability) ATSDR Conclusions

Bladder Cancer	PCE	Sufficient
Kidney Cancer	TCE	Sufficient
Leukemia	Benzene	Sufficient
Liver Cancer	TCE, Vinyl Chloride	Sufficient
Non-Hodgkin Lymphoma	TCE, PCE, Benzene	Sufficient
Multiple Myeloma	TCE, Benzene	Equipoise and Above
Parkinson's Disease	TCE	Equipoise and Above
Myelodysplastic Syndromes	Benzene	Insufficient Studies

Navy JAG – CLJA Form Box 10

1. Bladder Cancer
2. Kidney Cancer
3. Liver Cancer
4. Adult Leukemia
5. Childhood Leukemia
6. Multiple Myeloma
7. Parkinson's Disease
8. Non-Hodgkin's Lymphoma
9. Cardiac Defect
10. Other Kidney Diseases
11. Systemic Sclerosis/Scleroderma
12. Aplastic Anemia & Other
Myelodysplastic Syndromes

Navy JAG – Administrative Form

Jennifer Tennile Karnes (Langley)

Attorney, Tort Claims Unit

Admiralty & Claims Division (Code 15)

Office of the Judge Advocate General Norfolk Division

Office: 757.341.4537 (W)*

Jennifer.T.Langley.civ@us.navy.mil

“Presumptive Conditions: The injuries specifically listed in box 10 on the CLJA form. (These are the injuries considered by the Dept. of Veterans Affairs as presumptive. The term ‘presumptive conditions’ is for ease of reference only and **does not indicate any adjudicative decision or merit.**)”

CLASSIFICATION OF EVIDENCE

Below Equipoise - evidence is not sufficient to conclude that a causal relationship is at least as likely as not or is not sufficient to make a scientifically informed judgment.

Against - evidence suggests the lack of a causal relationship.



The Nations Law Firm

ATSDR – Insufficient Studies and Below Equipoise

Breast Cancer (Male & Female)	TCE, PCE, DCE, Vinyl Chloride
Esophageal Cancer	TCE, PCE
Brain / CNS Cancer	Vinyl Chloride
Prostate Cancer	TCE
Pancreatic Cancer	Benzene
Rectal Cancer	TCE

Neurobehavioral Effects

Studied by IOM/NAM

1. Alzheimer's Disease
2. Amyotrophic Lateral Sclerosis (ALS, Lou Gehrig's Disease)
3. Multiple Sclerosis
4. Parkinson's Disease

The conclusions:

Parkinson's Disease is designated as Tier 1.

The other three are below equipoise due to insufficient data.

SOURCES OF SCIENTIFIC RESEARCH

IARC - International Agency for Research on Cancer

EPA - Environmental Protection Agency

NTP - National Toxicology Program



SOURCES OF SCIENTIFIC RESEARCH

IOM - Institute of Medicine (NAM)

NCI – National Cancer Institute

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act (*Superfund*) **NPL**



SOURCES OF SCIENTIFIC RESEARCH

ATSDR Studies:

ATSDR conducted five studies at CLJ.

ATSDR's definitive report was published in 2017.

ATSDR is currently updating studies.





Howard L. Nations

The Nations Law Firm

Houston | New York | Washington D.C.

www.justiceforveterans.info

www.HowardNations.com

nations@howardnations.com