Benzene Exposure and the Risk of Cancer

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A MESSAGE FROM
CHRISTOPHER DYSART

Benzene Litigation Attorneys Practicing Nationwide

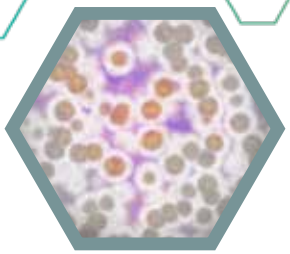
As the founder of The Dysart Law Firm, P.C., I want to reassure you that you have come to the right law firm to help you reach a successful settlement or judgment in your benzene exposure case. I am proud to tell you that we have worked tirelessly on behalf of many individuals and families that have suffered the serious consequences of benzene exposure. We have successfully resolved our clients' cases with significant settlements running into millions of dollars. The attorneys at The Dysart Law Firm, P.C. have multiple decades of litigation experience including litigating and trying numerous law suits to successful verdicts on behalf of our clients where necessary.

Our lawyers are knowledgeable about how people can be exposed to benzene either through the environment or through their work. We understand the health, emotional and financial impact of benzene exposure and the critical issues that arise in benzene litigation, including:

- **DETERMINING** and proving our clients' exposure to benzene or benzene-containing chemicals and materials such as xylene, gasoline, crude oil and various solvents.
- **ANALYZING** relevant circumstances in order to take legal action based on products or premises liability laws – against a negligent manufacturer, premises owner, employer, contractor or other party responsible for disease-causing benzene exposure.

WHAT IS BENZENE?

Benzene is a natural constituent of crude oil, and is one of the most basic petrochemicals. Benzene is a colorless and highly flammable liquid with a sweet smell. It is mainly used as a precursor to heavy chemicals, such as ethylbenzene and cumene, which are produced on a billion kilogram scale. Because it has a high octane number, it is an important component of gasoline, composing a few percent of its mass.



Benzene Toxicity

Benzene is one of a small number of industrial chemicals that is recognized as a known human carcinogen. Benzene is especially toxic to the blood-forming organs, i.e., the bone marrow and other organs that can produce blood cells. Benzene causes:

- **Hematotoxicity** – Damage to blood cells
- **Immunotoxicity** – Damage to the immune system
- **Genotoxicity** – Damage to chromosomes and the genes
- **Reproductive Toxicity** – Damage to reproductive organs
- **Blood Diseases** – Aplastic anemia, pancytopenia, myelodysplastic syndrome
- **Cancer** – Leukemias, lymphomas, and multiple myeloma

Benzene Uses

Benzene is widely used in the United States. It ranks in the top 20 chemicals for production volume. Some industries use benzene to make other chemicals which are used to make plastics, resins, nylon and synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs and pesticides. Benzene is a natural constituent of crude oil and is therefore present in many refined petroleum products, such as:

- **Gasoline**
- **Jet Fuel**
- **Glues & Adhesives**
- **Paints & Solvents**

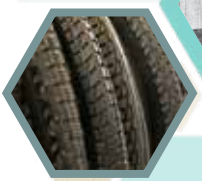
Dangers of Benzene Exposure

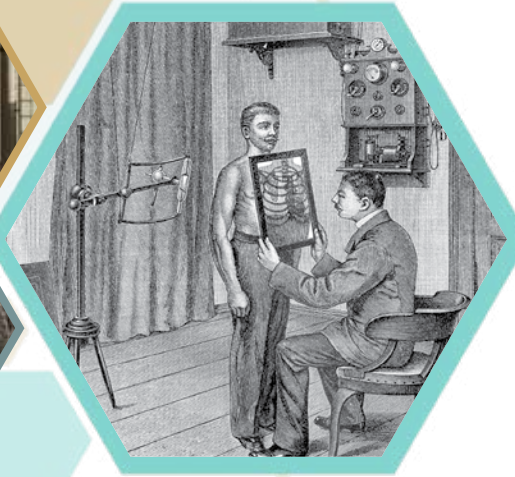
People can be exposed to benzene by living near a facility that produces benzene like an oil refinery, chemical factory or other facility that utilizes benzene in the production of other chemicals or products. People are also at risk of benzene exposure in their workplace in various jobs exposed to benzene from fuels or solvents. People can also be exposed to benzene in their home if they use products containing benzene.

Exposure to benzene can occur through three main routes of exposure: **inhalation**, **dermal absorption**, and **ingestion**. In industry, the greatest exposure to benzene typically results from inhalation. However, workers who get fuels or solvents on their hands or skin can also be exposed to high levels of benzene.

Inhaling very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion and unconsciousness. Symptoms of lesser but still excessive exposure to benzene include dry, chalky, flaky, cracked and bleeding skin on the palms of the hands, resulting in dermatitis. Typically, no symptoms are associated with low exposure to benzene, even though low level benzene exposure can be extremely harmful.

Exposure to benzene can result whenever carbon-rich materials undergo incomplete combustion. The biggest threat to people from exposure to benzene comes from this highly toxic chemical being used in everyday items. Benzene is widely used in a vast range of products, such as plastics, detergents, synthetic fibers, resins, dyes, rubber, paint and countless other products.





History of the Dangers of Benzene

Beginning in 1897, medical researchers began observing the harmful effects of benzene exposure. In Sweden, medical researchers observed aplastic anemia among young women engaged in the manufacture of bicycle tires, and in the same year researchers began documenting hemorrhaging in a young man engaged in a dry cleaning operation in France. Reports of workers developing benzene related diseases of the bone marrow increased dramatically during the first half of the 20th century.

Between 1910 and 1914, the first major use of benzene as a solvent in the rubber industry took place. Production of benzene was also stimulated greatly by the demand for toluene in the manufacture of explosives during the First World War. Expanded use of benzene in industry after the war led to an increased use of benzene as a solvent in the artificial leather industry, rubber goods, glue manufacturing, hat manufacturing, printing, paint, adhesives, coatings, dry cleaning, automobile manufacturing, tin-can assembly, as a starting material in organic synthesis, in petroleum products and in the blending of motor fuels.

Benzene and Blood Cancer

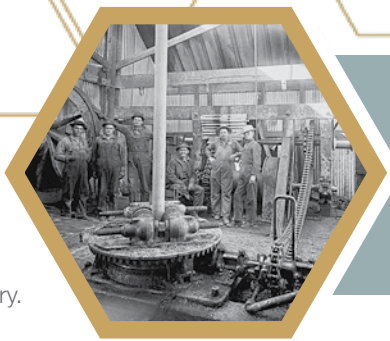
Beginning in the early 1970's, the University of North Carolina published a series of epidemiological studies demonstrating significant excesses of leukemia, mostly chronic forms, among workers exposed to low atmospheric levels of benzene. The benzene exposure resulted primarily from the use of rubber solvents such as petroleum naphtha, toluene, mineral spirits, etc., that were contaminated with benzene.

Medical research has continued to evolve over time by finding that lower and lower amounts of benzene exposure are needed to cause various forms of blood cancer. Moreover, medical research is also evolving over time to show that more and more types of blood cancer are caused by benzene exposure.

Delay in Regulation

Lack of Knowledge

The lack of regulation and other safety precautions related to potential benzene exposure has been attributed in part to lack of knowledge of its toxicity during the first four decades of the 20th century.



Cost of Solvents

Several investigators who surveyed workforces and identified workers with various benzene-induced blood diseases recommended that other solvents be used instead of benzene because of the significant health effects of benzene. Yet, worldwide consumption of benzene in the marketplace continued to expand after the Second World War. One of the reasons for expanded use of benzene in the synthetic rubber industry was that it was such a good rubber solvent. Another reason was that benzene was cheaper than other solvents. Thus, the inexpensiveness of benzene led to other solvents being replaced with benzene as late as 1961. This substitution with benzene led to high-level workplace atmospheric benzene concentrations and to the epidemic of leukemia, pre-leukemia, pancytopenia and other blood diseases as reported by various medical researchers.

Benzene in Gasoline

Most consumers and many medical personnel are not aware of the fact that gasoline contains benzene. In the United States, gasoline has contained an average of about 1.5% benzene for the past two decades, but may reach 5% by volume. Not surprisingly, epidemiological studies, analyses and case reports have demonstrated an association between gasoline exposure and leukemia, other blood diseases and chromosomal defects.

Yet, gasoline station pumps do not provide adequate information on the cancers known to be associated with benzene exposure. Nor do the material safety data sheets for gasoline provide the available evidence on chromosomal or genetic damage.

Affixing a warning label on gasoline pumps that includes the cancers and other diseases known or likely to be caused by benzene exposure, may serve to reduce unnecessary benzene exposure to garage mechanics, gas station service attendants, highway maintenance workers and consumers who fill their own gas tanks.

THE WORKPLACE

Factory workers that work with benzene or products that contain it may have an increased likelihood of inhaling large quantities of the harmful chemical. Some industries where benzene is most common are:

- Waste Management
- Rubber Processing
- Tank Cleaning
- Detergent Production
- Petroleum Processing
- Laboratory Technicians
- Solvent Production
- Mechanics
- Roofers
- Painters
- Gas Station Attendants
- Coke Oven Workers
- Railroad Workers
- Seamen
- Tanker Truck Drivers

EFFECTS OF BENZENE EXPOSURE

Increased levels of exposure to benzene has a lengthy history of causing both short and long term health effects in human beings.

Short Term Effects

When a person breathes in high quantities of benzene, they will begin to experience symptoms within a matter of hours. Eating food containing the chemical as well as drinking liquids with a high concentration of the fluid will incite an almost immediate reaction. Some of these symptoms include:

- Headaches
- Tremors
- Confusion
- Unconsciousness
- Rapid Heart Rate
- Dizziness
- Stomach Irritation
- Sleepiness
- Convulsions
- Vomiting

Long Term Effects

The long term effects of benzene generally inflict damage on bone marrow, especially the parts where blood cells are generated. Some diseases associated with the long term exposure of the chemical are:

- Acute Myeloid Leukemia (AML)
- Aplastic Anemia
- Multiple Myeloma
- Myelodysplastic Syndrome
- Non-Hodgkin's Lymphoma

ACUTE MYELOID LEUKEMIA (AML)

Acute Myeloid Leukemia, sometimes abbreviated as "AML," is a somewhat rare form of cancer. The disease is classified as a "Leukemia," which is a cancer that affects cells that would normally develop into different types of blood cells, but instead change to cancer cells. The "Myeloid" classification of Leukemia means that the cancer forms in white blood cells, red blood cells, or platelet-making cells. AML generally forms in a person's bone marrow, however, it will quickly spread to a person's blood stream. Health problems that can stem from Acute Myeloid Leukemia can include:

- **Weight Loss**
- **Fatigue**
- **Fever**
- **Night Sweats**
- **Loss of Appetite**
- **Excess Bruising & Bleeding**
- **Frequent or Severe Nosebleeds**
- **Bleeding Gums**

How Can Benzene Exposure Cause AML?

When exposed to benzene, the human body attempts to metabolize or process benzene in the liver and lungs with metabolizing also occurring in the bone marrow. The bone marrow is the soft, inner part of the bone where new blood cells are made. Recent research by the National Cancer Institute conducted in China has shown that even low level benzene exposure can cause a decrease in blood cells including white blood cells, lymphocytes, B cells and platelets. Thus, benzene depresses the production of blood cells which can result in blood diseases or cancer including AML.

APLASTIC ANEMIA

Aplastic anemia is a blood disorder that involves a person's bone marrow not creating enough new blood cells for a body to function properly and healthily. While it is common and normal for blood cells to have a brief life cycle, individuals suffering from aplastic anemia cannot replace the lost cells quickly enough and end up suffering negative health effects. Health problems that can stem from aplastic anemia can include:

- **Irregular heartbeat and arrhythmia**
- **Enlarged heart**
- **Heart failure**
- **Infections**
- **Bleeding**

In severe cases of aplastic anemia, death may occur. The disease itself can develop suddenly, and has a tendency to worsen as time passes. Fortunately, the disease, if detected early on, may be treated successfully, and even cured through the use of blood and marrow stem cell transplants.

How Can Benzene Exposure Cause Aplastic Anemia?

When exposed to benzene, the human body attempts to metabolize or process benzene in the liver and lungs with metabolizing also occurring in the bone marrow. The bone marrow is the soft, inner part of the bone where new blood cells are made. Recent research by the National Cancer Institute conducted in China has shown that even low level benzene exposure can cause a decrease in blood cells including white blood cells, lymphocytes, B cells and platelets. Thus, benzene depresses the production of blood cells which can result in blood diseases or cancer including aplastic anemia.

MULTIPLE MYELOMA

Multiple myeloma is a cancer of the plasma cells. These cells cause destruction of bone, resulting in bone pain, hypercalcemia, compression, fractures, spinal cord compression, hemiparesis, and paraplegia. Health problems that can stem from multiple myeloma can include:

- **Low blood counts**
- **Bone and calcium problems**
- **Infections**
- **Kidney problems**

How Does Benzene Exposure Contribute to Multiple Myeloma?

Causal associations for multiple myeloma have been reported in workers exposed to petrochemicals, especially those occupationally exposed to benzene, a known human carcinogen and leukemogen. In addition to chemical workers, elevated risks of multiple myeloma have been reported among farmers and others engaged in agricultural operations, metal workers, rubber manufacturing workers and painters. All of these occupations entail exposure to such benzene-containing products, i.e., gasoline or organic solvents.

MYELODYSPLASTIC SYNDROME

Myelodysplastic Syndrome (MDS) is a form of cancer where immature blood cells in bone marrow fail to fully mature into healthy blood cells. This can lead to the body's inability to correctly form healthy blood cells, which in turn, can cause a number of detrimental health effects.

Due to the reduced blood cell count a person may experience a number of symptomatic difficulties, including some of the following:

- Tiredness
- Shortness of Breath
- Paleness in Skin
- Low Blood Cell Counts
- Frequent Infection
- Frequent Illness, Cold, Flu, or Sickness
- Excessive Bleeding
- Excessive Susceptibility to Bruising or Bleeding
- Frequent or Severe Nosebleeds
- Bleeding from Gums
- Weight Loss
- Fever
- Loss of Appetite

How Does Benzene Exposure Contribute To Myelodysplastic Syndrome?

Several case reports, case studies, and epidemiological studies demonstrate that MDS is caused by benzene exposure. If an individual works in an industry where benzene exposure is common, they face a high degree of risks to both their immediate health, and also their overall longevity.

NON-HODGKIN'S LYMPHOMA

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

- Enlarged Lymph Nodes
- Fever
- Sweating & Chills
- Weight Loss
- Fatigue
- Swollen Abdomen
- Feeling Full After Only a Small Amount of Food
- Chest Pain or Pressure
- Shortness of Breath or Cough

How Does Benzene Exposure Contribute To Non-Hodgkin's Lymphoma?

Several lines of evidence demonstrate that benzene causes non-Hodgkin's lymphoma (NHL). For benzene exposures of 15 years duration, researchers showed a significant excess risk for NHL and demonstrated a dose-response relationship when considering NHL subtypes. Risk of NHL was significantly increased for exposure to gasoline, oil products, and solvents.

BENZENE EXPOSURE CASES

Benzene exposure cases fall under a particular type of personal injury lawsuit known as a Toxic Tort. A Toxic Tort is a lawsuit in which the plaintiff claims that exposure to a chemical caused the plaintiff's injury or disease. In a Toxic Tort case, the precipitating event can be the release of some harmful substance from an industrial or commercial facility that causes personal injury and/or property damage to individuals or landowners in the vicinity of the release. Benzene exposure can also occur from working in and around products that contain benzene or by working in and around pure benzene. Benzene exposure and Toxic Tort cases are highly complex and require the support of qualified medical evidence to support claims for damages. We can fully investigate your claim and will work carefully to obtain medical records, employment records and other documents that can prove past exposure. The Dysart Law Firm, P.C. has fought some of the world's largest corporations to obtain compensation for victims of corporate negligence and greed. If you believe you or a loved one have suffered due to benzene exposure, please contact us now.

How it Works

The first thing we do is gather basic information about your case. As part of our investigation we will obtain any relevant medical records and bills. It has been our experience that filing a lawsuit is necessary to maximize the settlement value of your case.

After the Suit is Filed

First, we will continue to investigate and research your case. Depending on the requirements of the case, we may be assisted by professional investigators and research assistants. This investigation and research often takes weeks or even months.

The second area of activity is called discovery. Various statutes and court rules permit representatives from each side of the lawsuit to file papers in court requesting the other side to furnish information about the case. When either side files such papers in court, the other side must respond within a fairly short time – usually 30 days. There are various types of discovery devises that the law allows:

1. Interrogatories. These are a series of written questions that one side asks the other. Interrogatories must be answered in writing and under oath.

2. Request for production. Each side may request the other to produce documents or things that might relate to the case.

3. Depositions. This is a procedure in which the lawyer for one side asks a witness questions verbally. The witness is under oath and answers verbally while a court reporter transcribes the proceedings.

When Will the Case Be Tried?

Cases are generally scheduled for trial within 18-24 months after they are filed. You can figure from the filing date of your case the approximate time when your case will be set for trial.

What You Need to Provide

RECORDS – Please keep accurate and detailed records of the following:

- **Hospital, doctor, drug, and medical bills**
- **Losses directly resulting from your injury**
- **Notes reflecting the effect of your injury on your daily life**
- **Any insurance policy that might afford you coverage or protection.**

You should pay all your bills by check or else obtain and keep receipts. These records will be very helpful a year later when you are asked by the defense to recall your pain, difficulties, and expenses.

WITNESSES – Immediately furnish us with the correct names, addresses, and telephone numbers of any and all witnesses you may learn of. This includes people who know how your injury has affected you (such as friends, family, neighbors, co-workers, or employees). It also includes people that have any information about potential exposure to benzene, gasoline or products containing benzene.

EVIDENCE – Please provide us with any photographs pertaining to your case that were taken by you or any of your friends. Please talk to us about any evidence you have or know of that may help us. Save any physical evidence and discuss it with your lawyer or investigator.

MEDICAL BILLS – Have your health insurance pay as many hospital and doctor bills as possible. If any bills remain unpaid, please call us.

SETTLEMENTS

$3.5 Million Settlement – Man that contracted Acute Myeloid Leukemia due to Toxic Chemical Exposure

$1.7 Million Settlement – Family of Man that Died as a Result of Contracting Non-Hodgkin's Lymphoma

$1.5 Million Settlement – Man that Contracted Acute Myeloid Leukemia due to Toxic Chemical Exposure

$1.5 Million Settlement – Man that Contracted Acute Myeloid Leukemia due to Toxic Chemical Exposure

$1.3 Million Settlement – Woman that Contracted Myelodysplastic Syndrome Due to Toxic Chemical Exposure

$1 Million Settlement – Woman that Contracted Acute Lymphoblastic Leukemia due to Toxic Chemical Exposure

$1 Million Settlement – Woman that Contracted Multiple Myeloma due to Toxic Chemical Exposure

$950,000 Setlemnt – Man that Contracted Acute Lymphoblastic Leukemia due to Toxic Chemical Exposure

$950,000 Settlement – Family of Woman that Died from Acute Myeloid Leukemia due to Toxic Chemical Exposure

$850,000 Settlement – Family of Man that Died from Non-Hodgkin's Lymphoma due to Toxic Chemical Exposure

TESTIMONIALS

"If anybody is going to be in a situation like I was in and they needed a lawyer who's really going to represent their needs and what they want, Chris Dysart's the guy to go to."
~ Scott Monroe

"Chris kept me in the loop and calm and always let me know that things are going to be taken care of. I was stunned and happy (with the settlement)…and that everything worked out. The Dysart Law Firm experience was fantastic."
~ Michael Hueur

"Another attorney recommended The Dysart Law Firm for our case so I knew we were getting a very good attorney, but Chris and his group went above and beyond. They were endlessly patient, responsive and just a pleasure to work with. They worked hard for my father and I will forever be grateful. I would recommend The Dysart Law Firm with the utmost confidence."
~ Melissa Abromovich

WHO WE ARE

The Dysart Law Firm, P.C. is committed to helping those who have been injured or family members of those who have died as the result of benzene exposure. Whether it's investigating the scene of the exposure, interviewing witnesses, negotiating with corporations and their lawyers, or trying the case before a jury, we can help you achieve the results you deserve. The Dysart Law Firm, P.C. is dedicated to using the law and the courts to seek justice and compensation for people who have been impacted by the actions of negligent and reckless corporations.

Contact Us

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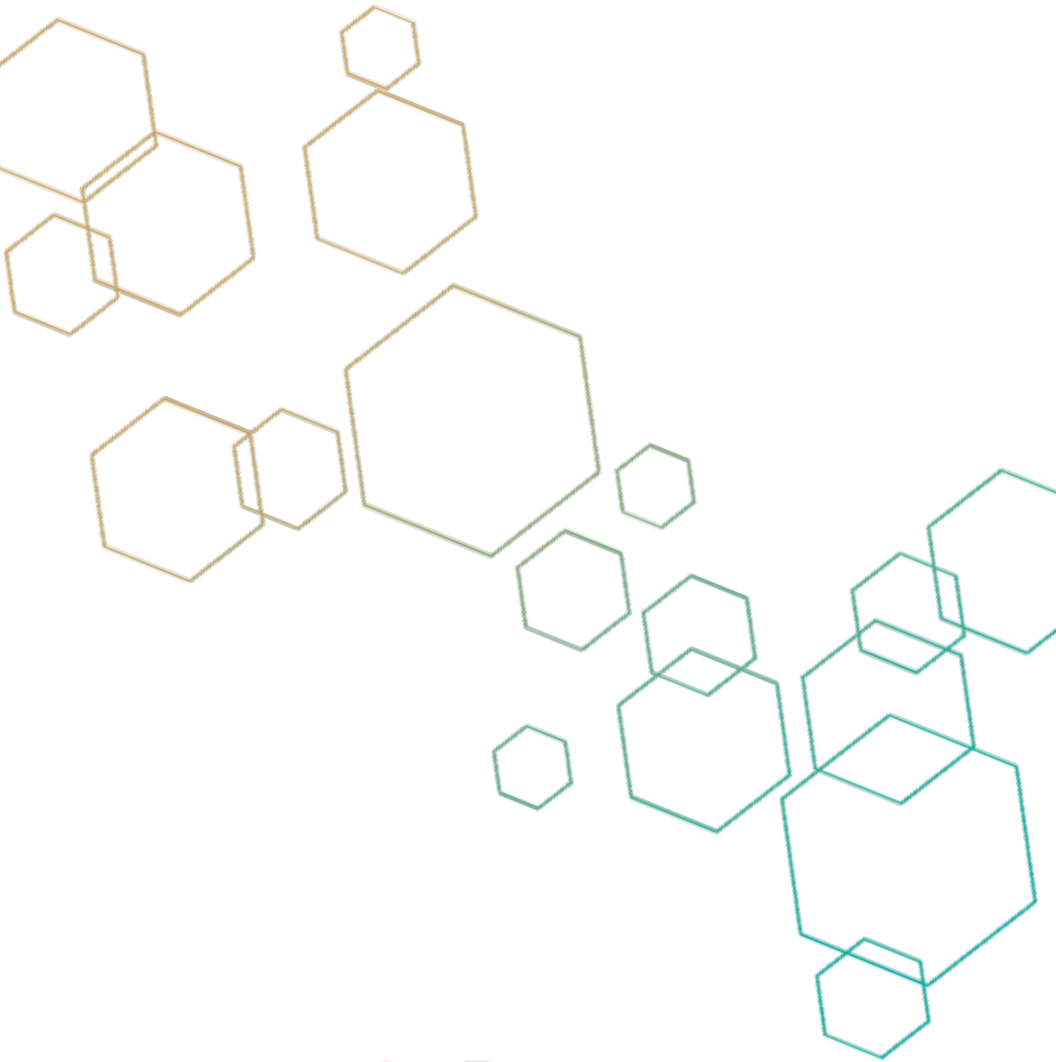

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