

TEXAS STATE FIRE MARSHAL'S OFFICE

Firefighter Fatality Investigation



Investigation Number FY 12-01

Fire Marshal Charles Matthew Waller

Memphis Volunteer Fire Department
February 25, 2012

*Texas Department of Insurance
Austin, Texas*

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Executive Summary

On February 16, 2012, 47-year-old Memphis Volunteer Fire Department Fire Marshal Charles Matthew Waller returned to his office, after inspecting and replacing smoke detectors at the city hall building that morning, to work on completing the department's monthly fire reports.

Assistant Fire Chief Stephen Maddox, when he went to look for equipment in the fire marshal's office, discovered Fire Marshal Waller collapsed on the floor behind his desk. Fire Marshal Waller was found at approximately 1:28 p.m. and transported to Childress Regional Medical Center. He was transferred to Baptist St. Anthony's Hospital in Amarillo, and then to hospice care, where he passed away on February 25, 2012, at 1:17 p.m.

This report is intended to honor Fire Marshal Charles Matthew Waller by providing information of lessons learned through the examination of this tragic loss, to prevent future injuries or deaths. Matt Waller joined the department in 1982 and was a firefighter and department training officer, as well as the City of Memphis Fire Marshal. Charles Matthew Waller was a 29-year veteran of the Memphis Volunteer Fire Department.



Introduction

On February 28, 2012, the Texas State Fire Marshal's Office (SFMO) learned of the death of Memphis Volunteer Fire Department Fire Marshal Matt Waller.

The State Fire Marshal's Office (SFMO) commenced the firefighter fatality investigation under the authority of Texas Government Code Section 417.0075.

- (a) *In this section, the term "firefighter" includes an individual who performs fire suppression duties for a governmental entity or volunteer fire department.*
- (b) *If a firefighter dies in the line of duty or if the firefighter's death occurs in connection with an on-duty incident in this state, the state fire marshal shall investigate the circumstances surrounding the death of the firefighter, including any factors that may have contributed to the death of the firefighter.*
- (c) *In conducting an investigation under this section, the state fire marshal has the same powers as those granted to the state fire marshal under Section 417.007. The state fire marshal will coordinate the investigative efforts of local government officials and may enlist established fire service organizations and private entities to assist in the investigation.*
- (d) *The state fire marshal will release a report concerning an investigation conducted under this section on completion of the investigation.*
- (e) *Not later than October 31 of each year, the state fire marshal will deliver to the commissioner a detailed report about the findings of each investigation conducted under this section in the preceding year.*
- (f) *Information gathered in an investigation conducted under this section is subject to Section 552.108.*
- (g) *The authority granted to the state fire marshal under this section will not limit in any way the authority of the county or municipal fire marshal to conduct the county or municipal fire marshal's own investigation into the death of a firefighter within the county or municipal fire marshal's jurisdiction.*

The State Fire Marshal assigned Investigator Dean Shirley to investigate the circumstances of the death.

Firefighter Fatality Investigation

On February 16, 2012, 47-year-old Fire Marshal/Firefighter Matt Waller was working for the City of Memphis as the Fire Marshal. His normal schedule was an 8-hour day, 40-hour work week.

During the morning of February 16, 2012, Fire Marshal Matt Waller was performing inspections and replacing smoke detectors at the Memphis City Hall. His normal morning routine included station-related duties of starting and performing the daily check of 16 department vehicles and station maintenance. Waller went to the city hall building and worked on smoke detectors until he returned to his station office at approximately noon. The city secretary was there and stated that Fire Marshal Waller did not complain of any health problems that morning. She stated that for a few days prior, Waller complained that he was not feeling well because of a possible sinus allergy.

At approximately 1:28 p.m. Memphis VFD Assistant Chief Maddox went to the station for a harness that was in the office. Maddox called Fire Marshal Waller ahead of time on his cellular telephone and received no answer. After retrieving the harness from the office Maddox called Waller again on the cellular telephone as he was leaving the office. Maddox heard the telephone ringing inside the office and discovered that Fire Marshal Waller was collapsed and unresponsive on the floor behind the desk.

Assistant Chief Maddox called 911, checked vitals and began administering CPR until EMS arrived.

Advanced life support measures were initiated and Fire Marshal Waller was transported to the Childress Regional Medical Center. Waller was stabilized at the regional medical center and then transported to the Baptist St. Anthony's Hospital in Amarillo. Fire Marshal Waller did not respond to treatment and on February 23, 2012, he was transferred to the Baptist St. Anthony Hospice where he passed away at approximately 1:17 p.m. on February 25, 2012.

No autopsy was performed.

Medical Background of Firefighter

Fire Marshal Matt Waller was a 47-year-old male born on June 27, 1964. He had served with the Memphis Volunteer Fire Department since 1982. Matt Waller followed in the footsteps of his firefighter father and lived at the station for many years. Matt Waller attended the Amarillo College Fire Academy and joined the department as a volunteer firefighter and emergency medical technician.

Fire Marshal Waller responded to a vehicle accident on February 13, 2012. He gave no indication of any difficulties during or after the response.

Fire Marshal Waller was 6 feet, 2 inches tall, and weighed 280 pounds; his body mass index¹ (BMI) was 35.9, indicating that his weight put him in the obese category for adults of his height. Additional risk factors for stroke² included high blood pressure, for which he was receiving treatment. Matt Waller was diagnosed with a heart murmur and high heart rate. He was taking daily blood pressure medication and a prescription for kidney stones.

The immediate cause of death indicated on the death certificate is cerebrovascular accident with an underlying cause of cerebrovascular disease.

¹CDC (Centers for Disease Control and Prevention) [2011]. BMI - Body Mass Index. [http://www.cdc.gov/healthyweight/assessing/bmi/]. Date accessed: December 2011.

² AHA/ASA (American Heart Association/American Stroke Association) [2006]. Stroke risk factors . [http://www.strokeassociation.org/STROKEORG/AboutStroke/UnderstandingRisk/Understanding-Risk_UCM_308539_SubHomePage.jsp]. Date accessed: December 2011.

Findings and Recommendations

The following findings of fact and recommendations are based upon nationally recognized consensus standards for the fire service, and are excerpted from published investigation reports provided by the Centers for Disease Control's National Institute for Occupational Safety and Health. Refer to the appendix for additional information regarding risk factors for stroke identified by the American Stroke Association.

Although there are no findings to report as a result of this investigation, nor is there any indication that the following recommendations could have prevented the death of Fire Marshal Waller, the State Fire Marshal's Office offers these recommendations to reduce the risk of stroke, on-the-job heart attacks, and sudden cardiac arrest among firefighters.

All fire departments should be aware of the content of the following standards and may choose to develop programs based on them, in order to increase the level of safety for fire department personnel.

All Texas firefighters must complete a "Courage to be Safe" course as adopted by the Texas Commission on Fire Protection and the State Firemen's and Fire Marshals' Association of Texas.

*The National Fallen Firefighters Foundation developed a course that details "**16 Firefighter Life Safety Initiatives**" so Everyone Goes Home® (<http://www.lifesafetyinitiatives.com>).*

*Provide mandatory pre-placement and annual medical evaluations to all firefighters consistent with **NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments**, to determine their medical ability to perform duties without presenting a significant risk to the safety and health of themselves or others.*

Perform an annual physical performance evaluation to ensure firefighters are physically capable of performing the essential job tasks of structural fire fighting.

*Ensure that firefighters are cleared for duty by a physician knowledgeable about the physical demands of fire fighting, the personal protective equipment used by firefighters, and the various components of **NFPA 1582, Standard on Comprehensive Occupational Medicine Program for Fire Departments**.*

*Fire departments should establish physical performance requirements for firefighters and develop physical fitness programs. **NFPA 1583, Standard on Health-Related Fitness Programs for Fire Fighters**, is an excellent resource.*

Department Description

The Memphis Volunteer Fire Department is located in Hall County, in the city of Memphis, Texas, 86 miles southeast of Amarillo in the Texas Panhandle. There are 31 members on the department roster. Department equipment includes two tankers (2000 and 5500 gallon), two rescue, one command, three pumpers (1-750 and 2-500 gpm), and two brush trucks. The department covers an area of 30 square miles and responds to an average of 100-130 fire calls annually.

APPENDIX

There are four keys for a healthier America:

- Be Physically Active Every Day.
- Eat a Nutritious Diet.
- Get Preventive Screenings.
- Make Healthy Choices.

The State Fire Marshal's Office also recommends that fire departments and firefighters adopt physical exercise regimens that will best prepare firefighters for the strenuous, often prolonged physical effort involved in fighting fires.

Here are some excellent resources:

Volunteer Fire Service Fitness And Wellness Program: The United States Fire Administration (USFA) and the National Volunteer Fire Council (NVFC) have created the Volunteer Fire Service Fitness and Wellness Project, a partnership initiative to reduce loss of life among volunteer firefighters from heart attack and stress. USFA is a part of the Federal Emergency Management Agency. You can find out more at http://www.usfa.dhs.gov/downloads/pdf/publications/fa_321.pdf.

The National Fallen Firefighters Foundation (NFFF) and PennWell Corporation have established a website, www.everyonegoeshome.com, for the nationwide Firefighter Life Safety Initiatives program.

American Heart Association/American Stroke Association

http://www.strokeassociation.org/STROKEORG/AboutStroke/UnderstandingRisk/Understanding-Risk_UCM_308539_SubHomePage.jsp

Risk Factors that cannot be changed

- **Age:** The chance of having a stroke approximately doubles for each decade of life after age 55. While stroke is common among the elderly, a lot of people under the age of 65 also have strokes.
- **Heredity (family history):** Your stroke risk is greater if a parent, grandparent, sister or brother has had a stroke. Some strokes may be symptoms of genetic disorders like CADASIL (Cerebral Autosomal Dominant Arteriopathy with Sub-cortical Infarcts and Leukoencephalopathy), which is caused by a gene mutation that leads to damage of blood vessel walls in the brain, blocking blood flow. Most individuals with CADASIL have a family history of the disorder; each child of a CADASIL parent has a 50 percent chance

of inheriting the disease. Visit the [NINDS website](#) or [read the AHA/ASA scientific statement on this topic](#) for more details about CADASIL.

- **Race:** [African Americans](#) have a much higher risk of death from a stroke than Caucasians do. This is partly because African Americans have higher risks of high blood pressure, diabetes and obesity.
- **Sex (gender):** Stroke is more common in men than in women. In most age groups, more men than women will have a stroke in a given year. However, more than half of total stroke deaths occur in women. At all ages, more women than men die of stroke. Use of birth control pills and pregnancy pose special stroke risks for women.
- **Prior stroke, TIA or heart attack:** The risk of stroke for someone who has already had one is many times that of a person who has not. Transient ischemic attacks ([TIAs](#)) are "warning strokes" that produce stroke-like symptoms but no lasting damage. TIAs are strong predictors of stroke. A person who has had one or more TIAs is almost 10 times more likely to have a stroke than someone of the same age and sex who hasn't. Recognizing and treating TIAs can reduce your risk of a major stroke. TIA should be considered a medical emergency and followed up immediately with a healthcare professional. If you've had a [heart attack](#), you're at higher risk of having a stroke, too.

Risk factors that can be changed

- **High blood pressure:** [High blood pressure](#) is the leading cause of stroke and the most important controllable risk factor for stroke. Many people believe the effective treatment of high blood pressure is a key reason for the accelerated decline in the death rates for stroke.
- **Cigarette smoking:** In recent years, studies have shown [cigarette smoking](#) to be a significant risk factor for stroke. The nicotine and carbon monoxide in cigarette smoke damage the cardiovascular system in many ways. The use of oral contraceptives combined with cigarette smoking greatly increases stroke risk.
- **Diabetes mellitus:** [Diabetes](#) is an independent risk factor for stroke. Many people with diabetes also have high blood pressure, high blood cholesterol and are overweight. This increases their risk even more. While diabetes is treatable, the presence of the disease still increases your risk of stroke.
- **Carotid or other artery disease:** The carotid arteries in your neck supply blood to your brain. A carotid artery narrowed by fatty deposits from atherosclerosis (plaque buildups in artery walls) may become blocked by a blood clot. Carotid artery disease is also called carotid artery stenosis.
- **Peripheral artery disease** is the narrowing of blood vessels carrying blood to leg and arm muscles. It's caused by fatty buildups of plaque in artery walls. People with [peripheral artery disease](#) have a higher risk of carotid artery disease, which raises their risk of stroke.
- **Atrial fibrillation:** This [heart rhythm disorder](#) raises the risk for stroke. The heart's upper chambers quiver instead of beating effectively, which can let the blood pool and clot. If a clot breaks off, enters the bloodstream and lodges in an artery leading to the brain, a stroke results.
- **Other heart disease:** People with coronary heart disease or [heart failure](#) have a higher risk of stroke than those with hearts that work normally. [Dilated cardiomyopathy](#) (an enlarged heart), heart valve disease and some types of [congenital heart defects](#) also raise the risk of stroke.
- **Sickle cell disease** (also called **sickle cell anemia**) is a genetic disorder that mainly affects African-American and Hispanic children. "Sickled" red blood cells are less able to

carry oxygen to the body's tissues and organs. These cells also tend to stick to blood vessel walls, which can block arteries to the brain and cause a stroke.

- **High blood cholesterol:** People with [high blood cholesterol](#) have an increased risk for stroke. Also, it appears that low HDL (“good”) cholesterol is a risk factor for stroke in men, but more data is needed to verify its effect in women.
- **Poor diet:** [Diets](#) high in saturated fat, trans fat and cholesterol can raise blood cholesterol levels. Diets high in sodium (salt) can contribute to increased blood pressure. Diets with excess calories can contribute to obesity. But a diet containing five or more servings of fruits and vegetables per day may reduce the risk of stroke.
- **Physical inactivity and obesity:** Being [inactive](#), [obese](#) or both can increase your risk of high blood pressure, high blood cholesterol, diabetes, heart disease and stroke. So go on a brisk walk, take the stairs, and do whatever you can to make your life more active. Try to get a total of at least 30 minutes of activity on most or all days.

Other less documented risk factors

- **Geographic location:** Strokes are more common in the southeastern United States than in other areas. These are the so-called "stroke belt" states.
- **Socioeconomic factors:** There's some evidence that strokes are more common among low-income people than among more affluent people.
- **Alcohol abuse:** Alcohol abuse can lead to multiple medical complications, including stroke. For those who consume alcohol, a recommendation of no more than two drinks per day for men and no more than one drink per day for nonpregnant women best reflects the state of the science for alcohol and stroke risk.
- **Drug abuse:** Drug addiction is often a chronic relapsing disorder associated with a number of societal and health-related problems. Drugs that are abused, including [cocaine](#), amphetamines and heroin, have been associated with an increased risk of stroke. Strokes caused by drug abuse are often seen in a younger population.