



National Fire Fighter Near-Miss Reporting System
 Safety, Health and Survival Week 2009
 Committed to Long Term Results

**Topic #2: Health – Firefighter Heart Disease and
 Cancer Education and Prevention**

- a. Don't smoke or use tobacco products.
- b. Get active.
- c. Eat a heart-healthy diet.
- d. Maintain a healthy weight.
- e. Get regular health screenings.

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Report Number: 05-329

Report Date: 06/29/2005 1930

Demographics

Department type: Paid Municipal

Job or rank: Battalion Chief / District Chief

Department shift: 24 hours on - 48 hours off

Age: 52 - 60

Years of fire service experience: 30+

Region: FEMA Region X

Service Area: Urban

Event Information

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 10/29/2004 1409

Hours into the shift: 5 - 8

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? No

What do you believe caused the event?

- Accountability
- Other

What do you believe is the loss potential?

- Life threatening injury
- Lost time injury

Event Description

Working as the Incident Commander at a routine apartment fire, suddenly I collapsed in ventricular fibrillation resulting in cardiac arrest. I was given CPR by firefighter/EMTs on scene, given one shock with a LifePak 500 by firefighter/EMTs which resulted in a successful resuscitation. I awoke and then the firefighter/paramedics continued with ALS support. I had a four-way coronary artery bypass graft two days later and was then outfitted with an implantable defibrillator. I returned to Operations Division on (date deleted).

Lessons Learned

Take better physical care of ones self. Ask for more in depth physical exams, including exercise stress test, especially after the age of 45. Alter diet to ensure cholesterol is lower than 200. Maintain a standard of physical fitness with a regular and consistent exercise program. Be aware of the risks of heart disease as established by the American Heart Association and other related associations. Refrain from the use of tobacco products.

Report Number: 06-066

Report Date: 02/03/2006 1037

Demographics

Department type: Industrial

Job or rank: Captain

Department shift: Straight days (8 hour)

Age: 25 - 33

Years of fire service experience: 17 - 20

Region: FEMA Region III

Service Area: Suburban

Event Information

Event type: On-duty activities: apparatus and station maintenance, meetings, tours, etc.

Event date and time: 02/03/2006 0700

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? Yes

What do you believe caused the event?

What do you believe is the loss potential?

Event Description

NO EXHAUST SYSTEM IN STATION.

Lessons Learned

WE NEED AN EXHAUST SYSTEM IN THE STATION. DIESEL EXHAUST IS A CANCER CAUSING AGENT.

Report Number: 06-255

Report Date: 04/26/2006 1312

Demographics

Department type: Combination, Mostly paid

Job or rank: Battalion Chief / District Chief

Department shift: 24 hours on - 48 hours off

Age: 43 - 51

Years of fire service experience: 27 - 30

Region: FEMA Region III

Service Area: Urban

Event Information

Event type: Other

Event date and time: 04/03/2006 0800

Hours into the shift: 0 - 4

Event participation: Told of event, but neither involved nor witnessed event

Weather at time of event:

Do you think this will happen again? Yes

What do you believe caused the event?

- Other

What do you believe is the loss potential?

- Life threatening injury

Event Description

While participating in an annual physical exam, a positive colon cancer was detected. This positive test was confirmed by an outside source. This case is but one of four or five that has surfaced in the past three years.

Lessons Learned

Extensive annual physical examinations for all fire/rescue personnel are a must. In fact, an intense Wellness-Fitness Program should be an integral part of every department. The annual physical exam is, in part, a discovery phase. Other components of the Wellness-Fitness Program may help reduce the chance of developing this disease or at the very least promote early detection.

Report Number: 06-285

Report Date: 05/19/2006 1146

Demographics

Department type: Combination, Mostly paid

Job or rank: Fire Chief

Department shift: Other: Administrative

Age: 52 - 60

Years of fire service experience: 30+

Region: FEMA Region VIII

Service Area: Suburban

Event Information

Event type: Other

Event date and time: 01/25/2006 1100

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? Yes

What do you believe caused the event?

- Protocol

What do you believe is the loss potential?

- Life threatening injury

Event Description

I participated in the Departments annual medical physical. A 12 lead EKG indicated a non diagnostic, abnormal EKG. The physician recommended a stress test. The first stress test led to a cardio light stress test. The results showed blockages and the recommended course of action was a cardio catheter with the intent to perform angioplasty or stenting. The cardio catheter showed total blockages in two arteries and partial in a third resulting in bypass surgery. I had participated in my own annual physical 6 months prior to the Department physical and the EKG at that time showed no indications of any problems. I never experienced chest pain and was asymptomatic. The required annual Department physical was key in identifying the issue. My surgery was February 1st and I returned to work on a part time basis April 3. I expect to be released to full duty in mid June.

Lessons Learned

Our organization implemented annual physicals three years ago. It is imperative that departments have a medical physical program that identifies potentially fatal diseases such as cancer or coronary artery disease. It is our intent to expand our program to include further coronary screening as well as providing presentations physical well-being of our employees.

Report Number: 06-287

Report Date: 05/22/2006 1211

Demographics

Department type: Combination, Mostly paid

Job or rank: Battalion Chief / District Chief

Department shift: 10 hour days, 14 hour nights (2-2-4)

Age: 43 - 51

Years of fire service experience: 27 - 30

Region: FEMA Region II

Service Area: Suburban

Event Information

Event type: On-duty activities: apparatus and station maintenance, meetings, tours, etc.

Event date and time: 05/11/2006 1430

Hours into the shift: 5 - 8

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? No

What do you believe caused the event?

- Situational Awareness
- Individual Action
- Decision Making

What do you believe is the loss potential?

- Lost time injury
- Life threatening injury

Event Description

On Thursday May 11, 2006, I suffered a cardiac arrest while on duty. I had no previous symptoms and had a recent very comprehensive physical, which is required and paid for by my department each year that showed no early indications that I was at risk. The physical examination included a stress test and echocardiogram, along with blood tests and a pulmonary function test. My test results showed my cholesterol levels were very good, and all other levels were in the favorable range. I do, however; have a history of heart disease in my family. Early in the shift, we responded to a report of smoke from a building that turned out to be minor, however, as I was exiting my command vehicle on arrival, I felt a strange fatigue. The feeling passed quickly and I wrote it off as simply being tired. I continued the balance of the morning with no further problems; I felt quite normal and had attended several meetings. I had lunch with the station crew as I normally do each day. After lunch, I sat down at my desk to get some paperwork done and I again began to feel very tired. I also began to notice a pain in my back centered across my shoulders. Thinking that I had strained some muscles in my back while moving some storage boxes at home the previous evening, I didn't give it much thought. I took a walk around the station and had a glass of water,

thinking that I could walk off the discomfort. I just could not shake the discomfort and now I noticed that the pain in my shoulders was beginning to radiate down both of my arms to my fingertips. I sat back down at my desk and tried to relax and get some work done, but I could not concentrate. I then said to another officer who was working at his desk opposite mine that I was tired and thought I would go upstairs to the dorm to lie down for a while. As I made my way across the apparatus floor to the dorm stairs, I had a strange feeling of foreboding. I remembered years earlier the story of a fire captain of a neighboring department that had reported feeling ill after finishing a meal with his crew and had gone to the dormitory to rest. His fellow firefighters found him several hours later dead from a massive coronary. I knew that I didn't want to be alone at that moment and I returned to the office. I asked the officer, who is also an EMT, to get a med bag and start a workup on me. I was now beginning to experience chest pains. After checking my vitals, we agreed that I should be transported to the local emergency room. Since the hospital is located only a few blocks from our station, I was placed in the command vehicle and taken immediately to the ER. On arrival at the hospital, I was placed in a room and a preliminary examination was begun. A cardiologist was called and arrived to examine me. As the doctor was explaining to me that he thought I was suffering from an angina attack, I felt a considerable surge of pain in the center of my chest. I recall saying to the doctor that I felt like I was going to faint when I suddenly lost consciousness. I apparently at that point "coded" and the staff had to use a defibrillator to shock my heart back to life. I was only gone for thirty seconds and I awoke to a great deal of commotion. I was rushed down the hall to the cardiac catheterization unit where the cardiologist was able to quickly find and clear a blockage in one of my coronary arteries that had caused the arrest. My prognosis is very good, and I expect to make a full recovery.

Lessons Learned

Many firefighters, much like the general population, will try to minimize their reaction to the symptoms of a heart attack. They will try to tough it out and hope that it will get better. It is engrained in our culture that we are tough and can take it, but firefighters need to know that the risk of ignoring the symptoms is far greater than the risk of embarrassment in front of their peers. Had I ignored my symptoms there is a good chance that my prognosis would have been far graver. The damage that is being done to the heart during a coronary event can be minimized by early intervention. I feel fortunate that through my training, experience, and instincts, I decided to get help immediately. I truly believe that had I made a different decision I would not be alive today to pass this experience on.

Report Number: 06-288

Report Date: 05/22/2006 1500

Demographics

Department type: Paid Municipal

Job or rank: Battalion Chief / District Chief

Department shift: 24 hours on - 48 hours off

Age: 52 - 60

Years of fire service experience: 30+

Region: FEMA Region X

Service Area: Urban

Event Information

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 10/29/2004 1409

Hours into the shift: 5 - 8

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? Yes

What do you believe caused the event?

- Training Issue
- Individual Action
- Other

What do you believe is the loss potential?

- Life threatening injury
- Lost time injury

Event Description

While working as the Incident Commander of an apartment fire, I suffered "Sudden Cardiac Death." My heart had gone into ventricular fibrillation resulting in cardiac arrest. Firefighter/EMTs and Firefighter/Paramedics were next to me when I went down. They performed CPR and gave me one shock from a LifePak 500. Within four minutes of dropping dead, I was awake and talking with the crews who had just given my life back to me. I underwent a 4-way open heart bypass operation two days later. A couple of months after that, I went through a cardiac stress test and echocardiogram. Those tests revealed that I had no heart damage and was completely healed. Thirty years as a firefighter, many without use of a SCBA, poor diet, lack of exercise and tobacco use, were certainly factors that led to this event. Since that day I have quit smoking, started eating a much more heart healthy diet and exercise 4 to 6 days a week. I firmly believe in fire-based EMS and firefighter physical fitness.

Lessons Learned

I learned that our lives are not our own - we share them with a lot of other people. Keep yourself physically fit and be sure to get regular checkups from your doctor. Ask that you get screened for signs of coronary artery disease, heart history in your family, high blood pressure, high cholesterol, smoking, lack of exercise, obesity, and so on. Be advised that Electron Beam Tomography (EBT) scans are good tools for determining the condition of coronary arteries, whereas cardiac stress tests, treadmill tests, generally do not recognize coronary artery disease problems until those arteries are nearly 70% blocked. Firefighting is one of the most stressful and dangerous jobs in America. We owe it to ourselves, our families and our fellow firefighters to be in the best physical condition possible. Likewise, we must insist that we become as proficient as possible in the emergency medical field, if for nothing else than those times when we can save the life of a fellow firefighter.

Report Number: 06-477

Report Date: 09/19/2006 1401

Demographics

Department type: Paid Municipal

Job or rank: Assistant Chief

Department shift: Straight days (8 hour)

Age: 34 - 42

Years of fire service experience: 11 - 13

Region: FEMA Region VI

Service Area: Suburban

Event Information

Event type: Other

Event date and time: 08/15/2006 0730

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? Uncertain

What do you believe caused the event?

- Other

What do you believe is the loss potential?

- Minor injury
- Lost time injury

Event Description

As I woke up and prepared to go to work, I felt my heart tremendously racing. As I arrived at work, I went to my office and still could not get my heart rate slowed down. I had several of the firefighters take my pulse and blood pressure. My heart rate was 165 beats/min. and they immediately called our local EMS provider. When the medics arrived, they hooked me up to an EKG and determined I was in atrial-fibrillation. This is not a life-threatening condition, but could lead to serious health conditions such as a stroke. I immediately went to the Emergency Room where I was given medication to chemically "shock" my heart back into normal rhythm.

Lessons Learned

I learned to listen to my body and report any abnormal conditions. I truly believed nothing serious was happening and had to be forced to report to the hospital. I believe my quick action on getting medical attention reduced any long-term health effects. I am more aware of this condition and will continue to monitor my health and heart rate. I will now see a cardiologist every 6-months to monitor my heart for any signs of damage or future conditions.

Report Number: 07-953

Report Date: 06/12/2007 1704

Demographics

Department type: Combination, Mostly paid

Job or rank: Fire Fighter

Department shift: 24 hours on - 48 hours off

Age: 43 - 51

Years of fire service experience: 17 - 20

Region: FEMA Region I

Service Area: Urban

Event Information

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 01/21/2004 0912

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event: Clear with Frozen Surfaces

Do you think this will happen again? Yes

What do you believe caused the event?

What do you believe is the loss potential?

Event Description

We were called for a structure fire with a child reported possibly trapped. On arrival initial attack was with two firefighters. Upon entering house it flashed over. One firefighter lost his helmet and was told to exit to get another. He was then assigned to open the roof, leaving me to enter alone. I entered alone because of the chance of a child being in this now totally involved wood framed house. I was able to attack with a 1 3/4" line and knock down what was in front of me searching all the time. Suddenly there was an explosion and a collapse. I ended up in the basement with a shattered mask, and a sense of numbness all over. Somehow I was able to get out from the basement on my own. I was immediately put in a paramedic engine awaiting a mutual aid ambulance. I had a heart rate over 250 and severe smoke inhalation along with neck and back pain. I was transported to a local hospital and hospitalized for five days. I had an extensive cardiac work-up and was found to have a condition usually caused by electrocution. I have had four heart procedures and two pacemakers. I will probably have more procedures done. My heart problem is all electrical with NO artery disease. I have since retired under the Heart & Lung Bill, which was a fight to get.

Lessons Learned

I don't believe any lessons were learned from my department. They still run with a total of seven men with a minimum of five with a response of two engines and a ladder truck. NO way should we have had only one attack team with no back up.

There was NO accountability because no one knew I was missing. I had to have been in the structure for some time because my pass device battery was almost dead. Small

towns NEED more men to fight fires, instead of always cutting the Fire Department budget. Fire Chiefs should be looking out for their men, not being a politician. TRAINING, TRAINING, TRAINING IS NEEDED!!!!!!

Report Number: 07-1051
Report Date: 09/10/2007 2118

Demographics

Department type: Volunteer
Job or rank: Assistant Chief
Department shift: Respond from home
Age: 34 - 42
Years of fire service experience: 17 - 20
Region: FEMA Region IV
Service Area: Rural

Event Information

Event type: Non-fire emergency event: auto extrication, technical rescue, emergency medical call, service calls, etc

Event date and time: 08/04/2004 1800

Hours into the shift:

Event participation: Involved in the event

Weather at time of event: Clear and Dry

Do you think this will happen again?

What do you believe caused the event?

- Fatigue
- Weather

What do you believe is the loss potential?

- Life threatening injury
- Lost time injury

Event Description

On [date deleted] I was involved in an extensive extrication where no rescue truck or tools were available. The accident involved two passenger cars. Upon arrival, we had two confirmed patients pinned and one partial ejection. I was called to the most critical of the three and was instructed to help extricate her. This patient had a very weak pulse and was fading fast. Because there were no extrication tools on the scene, I made the decision to use a pry bar and a sledge hammer to try and remove the door. The weather was approximately 92 degrees. After about one hour of work, the patient was removed from her car and loaded into the waiting ambulance. After the patient was removed, I started feeling weak/light headed and had pain in my chest. I ignored this for about 1.5 hours and then decided to go to the EMS station. I was transported to the ER and it was determined that I had suffered a light heart attack. The doctors said that it was more than likely from the heat and the stress level at this scene.

Lessons Learned

We all need to work together and watch out for each other. REHAB is a must no matter what kind of call we are on. During the hot months, we need to drink plenty of water and keep our eye on the men/women dressed like us.

Report Number: 08-191

Report Date: 04/22/2008 2125

Demographics

Department type: Wildland / Forestry

Job or rank: Captain

Department shift: Straight days (10 hour)

Age: 34 - 42

Years of fire service experience: 17 - 20

Region: FEMA Region IX

Service Area: Rural

Event Information

Event type: Other: Pack Test

Event date and time: 04/17/2008 0840

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event: Clear and Dry

Do you think this will happen again? Yes

What do you believe caused the event?

- Protocol
- Other

What do you believe is the loss potential?

- Life threatening injury
- Lost time injury

Event Description

While taking the annual pack test, a 38 year old suffered a heart attack on the 11th lap. The pack test is required for all personnel who will be fighting wildland fires. Rescue breathing was initiated by the EMT and ALS responded and arrived in less than five minutes. The victim was shocked three times and then transported to a local hospital. The victim was stabilized and then sent to a level two trauma center. The victim completed an intensive physical and was passed as fit for duty.

Lessons Learned

Getting a physical is the building block for physical fitness. Year-round training for your body is the key to preventing serious complications during stress. It doesn't matter if it's at the scene of a fire or a work out, listen to your body. Check if your family has a history of medical issues.

Report Number: 08-247

Report Date: 05/18/2008 2128

Demographics

Department type: Combination, Mostly paid

Job or rank: Driver / Engineer

Department shift: 24 hours on - 48 hours off

Age: 34 - 42

Years of fire service experience: 17 - 20

Region: FEMA Region III

Service Area: Urban

Event Information

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 02/03/2008 2100

Hours into the shift:

Event participation: Involved in the event

Weather at time of event: Clear and Dry

Do you think this will happen again?

What do you believe caused the event?

- Situational Awareness
- Staffing
- Individual Action

What do you believe is the loss potential?

- Lost time injury
- Other

Event Description

On Feb 3, 2008, my ladder company was dispatched as part of a box assignment for a reported fire on the roof of a restaurant. That night the staffing on the ladder truck was the normal staffing of two (driver and tillerman). I was working my regular position as tillerman with a driver from another shift on overtime. We were in the process of cleaning the kitchen after dinner when the call came in. Enroute communications was advised of fire showing on the roof by one of our fire marshal's who was in the area. As we arrived on scene, we positioned the truck to ladder the roof of the one story ordinary construction restaurant. Units on scene had already accessed the roof and determined that roofers working on the roof had already extinguished the fire. As my driver laddered the roof, I donned the rest of my gear and SCBA and grabbed a saw and pike pole to go to the roof. I walked the aerial, which was at a low angle to the roof, where I waited to see if there was any need for my tools. While at the tip of the aerial, I started to experience mild chest pains, nausea, and shortness of breath. I attributed it to a cold that I had been fighting over the previous weeks, and to the dinner we had just eaten. I returned to the turntable where the shortness of breath was more noticeable. Again I just thought, I am out of shape, it's the cold I have, its cold

outside, it's the new guys cooking, or anything to put my mind at ease. As I got back on the ground, I took off some of my gear and my driver asked if I was ok. I was sweating heavily for the little amount of work I had done and the nausea was getting worse. I figured that if I just got dinner out then I'd be fine. By now, other firefighters were checking on me and got me to sit down. One of them asked if I wanted an ambulance and I told them that right now I think that would be a good idea. Command was notified of a firefighter down and a request for an ambulance. Face to face communications took place at that time to let command know what was going on, while my brothers started to treat my symptoms. The medic unit arrived and transported me to the local ER where I was kept over night for observation. The whole time I never felt any sharp pains that you would associate with a heart attack. However, I knew things weren't right when a few of the brothers arrived at the ER and I could see them watching the monitor. The next morning I was advised that I was being sent to a hospital in [location deleted] for a catheterization. They thought it was a blockage and that I would be out of the hospital the next morning. After getting to the hospital in [location deleted] things happened quickly and I was in the catheter lab within the hour. I can't remember much until I got back to my room where the doctor was talking with my wife and she was crying. That's when the doctor told me that there were no blockages and that my heart had weakened to about 20% capacity. He started telling me about pacemakers and defibrillator's and everything else. However, the one thing that stood out was when he told me, "Had you not had this checked when you did it would have killed you!" Later I found out that my ladder company was first in on another fire later in the shift.

Lessons Learned

It took a lot for me to realize that something was wrong and to let the other firefighters take care of my problem. I thought I could fix it myself. Only later did I realize that I couldn't have fixed things that night. My suggestions are for others to listen to what their bodies are telling them. I have had several other brothers tell me that they have had shortness of breath just climbing the stairs in the firehouse. Moreover, each one of them has said that they have not seen a doctor because they are afraid that they won't be allowed to return to work. The only thing I can say to that is I would rather be told that than to have someone knock on my door and tell my family "I have some bad news...." I have found that a normal stress test would not have found my condition but it might have helped if it were done yearly. I hope that others can be honest with the doctor when they get their physicals or other tests. My department does stress tests every other year and the physicals on the off years of the stress tests. Do them at the same time so that it can be assured that the results are immediately available. I actually was the third heart related case in almost a year in my department. Luckily, all three are having positive outcomes at this point.