The Lancaster EMS Monitor

Fourth Issue, Summer 2008

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EMS Legacy

By Andrew Gilger, EMT-P, Director of Operations

As an organization we have passed many milestones, one of note in April of this year, our first 1000 patient transport (911) month. As we continue to grow and our volume increases I find myself reflecting on our collective history, the legacy of the organization is a long and storied one, one we can all take pride in and continue to build on.

What is a legacy? Merriam-Webster defines it as:

legacy (**[1]leg·a·cy)** Pronunciation: \□le-gə-sē\ Function: *noun* **1 :** a gift by will especially of money or other personal property **: BEQUEST 2 :** something transmitted by or received from an ancestor or predecessor or from the past <the *legacy* of the ancient philosophers>

What has been left or transmitted to us from our predecessors? What gift has been given? Many come to mind. The sacrifice of time and energy, the gift of knowledge passed from experienced provider to those just starting out, the ultimate sacrifice, given in the care of others in the line of duty. One of the proudest moments in my life was receiving the award named for two individuals who made this sacrifice upon graduation from the Paramedic Institute at St. Joseph Hospital. These individuals are part of our legacy here at Lancaster EMS and I wanted to take the time this month as we approach the 27th anniversary of the tragic day that took their lives to remind some and inform others of the sacrifice made and it's continued impact on EMS and our legacy here at Lancaster EMS

On June 13, 1981, Bruce Ditlow and Kevin Weatherlow were involved in an attempt to rescue a young boy from an abandoned septic tank. The call was routine, and the paramedics were on the scene within three minutes. However, Bruce and fellow paramedic Kevin, his best friend since high school, were overcome by lethal methane gas as they worked to save the boy and each other. Bruce, a paramedic at St. Joseph Hospital for five years, was involved in educating the public about pre-hospital care and teaching cardiopulmonary resuscitation for St. Joseph Hospital and its satellite clinics. Additionally, he was a speaker in St. Joseph's paramedic programs and Health Care Center. He was planning a career in nursing. Kevin, a paramedic at St. Joseph Hospital for four years, was on the Dean's List at Reading Area Community College where he attended nursing school. Kevin was also active in the Army Reserves. He and his wife Sharon were the parents of one daughter Kristen. Jeff Jones a volunteer firefighter with Bausman Fire Company (now Lancaster Township) also died during the rescue attempt.

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Letter from the Editor

Well, it has been a year since Lancaster EMS published its first Monitor newsletter. It is hard to believe that a year has gone by so fast. There have been many cosmetic improvements to the newsletter thanks to the imagination of Mandie Martz and Vickie Horan whose help has been invaluable to this undertaking. We will attempt to get as many newsletters out a year as is possible. This year it looks like we may only get two out but hopefully they will be entertaining as well as educational. We have many good ideas and interested Lancaster EMS family members who are going to write articles for us. Remember, this is and always will be your newsletter. So participation is encouraged and very much appreciated.

Over the last year the Monitor's collaborators and Lancaster EMS management has received overwhelming positive response from the Lancaster EMS family and influential people throughout our running area. These comments always tear at your heartstrings because if anyone has ever done or been a part of a newsletter you know it is not an easy task but it is a necessary one and I personally would not trade a minute of my time or effort in accomplishing the goal of making a quality newsletter.

In the future newsletters we will have articles from other organizations, influential people throughout the county and state, and maybe even some articles of praise from our patients. We, as a company, need to stay informed about the public, local, and state opinions and policies. As always, the Monitor staff is looking for articles and pictures to include in forth coming additions. If you would like to be a part of the next newsletter please inform any of the newsletter staff or go to newsletter@lemsa.com and let us know.

An idea that was brought up to me was a question and answer forum with Tom Shaw. The man with a thousand answers. Tom can answer any questions you may have regarding maintenance of the trucks, equipment, or buildings. For example: Suppose you want to know how the two battery system works on the ambulance or you want to know more about the Drive Cams and you think the rest of the Lancaster EMS family would like to know the answers to these questions. Please submit any questions you might have to me at the above address and I will forward to Tom for answers.

I hope that you enjoy this new addition to the Monitor and as always if you have any comments or suggestions please always fell free to contact me or my staff.

Bill Conrad

Monitor Editor

Lugo, Lynda	July 2	Frey, David	August 6
Parrish, Justin	July 4	Bradford, Brian	August 7
Gehman, Ryan	July 14	Rutt, Julie	August 11
Grove, Lori	July 14	Uhle, Rafael	August 12
Rathbun, David	July 17	Leto, Hillary	August 16
Solodky, Ian	July 18	Henry, Bruce	August 17
Freeman, Denise	July 19	Seymour, Mark	August 17
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Zonka, Cynthia	August 4	Zook, Paul	August 26

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The young boy Bruce, Kevin and Jeff were trying to save was rescued and recovered from the experience. Bruce and Kevin were honored in 1995 at the National EMS Memorial; Jeff was honored in the National Fire Fighters Memorial.

The selfless sacrifice of these individuals is a lesson to us all as we go through our days. Their legacy lives on in all of us here at Lancaster EMS in many ways. As I watch staff reach out to each other, step forward to speak for the less fortunate patients we encounter from day to day, I know that this legacy is well tended amongst our staff. The message can never be lost, nor will it soon be forgotten. There is a personal impact felt to this day amongst or staff. Ask RJ, ask Craig about its effect on their lives and careers. We can all be proud of this legacy.

Since I took my first position as a paramedic on St. Joseph Hospital Medic One, I have been keenly aware of the memory and legacy given to us that June day in 1981 and by all the other EMS practitioners that have made the ultimate sacrifice. Every year (to this day) flowers are placed on the Bruce and Kevin's grave sights at the Conestoga Memorial Park. I have been privileged on many occasions to take the flowers to the graves, and continue to be moved by the many remembrances placed there every year. This year will be no different. The flowers will be placed, the legacy will live on, protected by each one of you as you go through your days caring for the public we have been entrusted to serve. It is with pride that I say thank you for the sacrifices you make and the care you exhibit in a job done well and done safely.

Greater love has no one than this, that he lay down his life for his friends.

The following individuals from Lancaster County have given their lives in the line of duty: Ethel Speros, EMT from Willow Street Fire Company, Patricia Riccobono, flight medic Allentown-Sacred Heart Hospital and former medic at Community Hospital of Lancaster and David A Sauder, EMT from Leola Ambulance Association. All have been honored at the National EMS Memorial. Lancaster EMS is a proud sponsor of the annual memorial service.

Lancaster EMS is sponsoring multiple bricks in honor of Bruce and Kevin on the county First Responders Memorial being constructed at the Lancaster County Public Safety Training Center.

Volunteer Snippet

I would like to thank all the volunteers for their patience and cooperation with the scheduling challenges Lancaster EMS has been experiencing. I know that many of you have been asked to change your sites or at times asked to not run on a scheduled time. I realize this can be frustrating to the volunteers but I appreciate your understanding. Lancaster EMS has taken on the major responsibility of teaching the future Paramedics and EMT's and in order to do this they need the running time for the practical experience they need to become the best they can be in their chosen professions. It will get better as time goes by. So your continued understanding and patience is respectfully appreciated.

The Volunteer program is always changing and always striving to become better so all and any suggestions are always encouraged. Recently a volunteer has reached a milestone. One of our treasured volunteers turned 65. Jean Greist, Momma Jean to many of us, has been a great supporter of Lancaster EMS and its volunteer program from day 1 of the acquisition of Strasburg Ambulance. She always has a kind and encouraging word for everyone and is a definite asset to the Lancaster EMS family. Momma Jean, We love and respect you and look forward to many more years of you being a part of this great family.

The Lancaster EMS 4th annual Volunteer Appreciation Banquet will be held again this year. Plans are in the process of being put together. It will be held in October or November and all volunteers will be receiving an invitation shortly. Please consider attending so that you can be shown the respect you deserve for giving so unselfishly of your time. We greatly appreciate and thank you for your time and effort. I look forward to seeing all of you on the street. Be safe and thank you.

Bill Conrad. Volunteer Coordinator

A Commitment to a Healthy Lancaster EMS Workforce

By Jerry Schramm, EMT-P

How many of us can respond to a call and not feel winded after climbing to the third floor? How will the old back feel after lifting that 350 pound patient? Most people, if they're being honest, would probably agree that they are out of shape. With the push toward a healthy life style by the company, and in keeping with Lancaster EMS's commitment to employee health and wellness, I would like to take this opportunity to encourage everyone to exercise. There is no better time then right now to jump on the band-wagon.

It is not as hard as one may think. The hardest part about getting healthy is being motivated to start. All it takes is a few motivated people to lend some encouragement and, before we know it, a healthy and active lifestyle becomes a company wide epidemic.

Those that know me might look at my appearance and discount my advice as someone who doesn't understand the reality of being out of shape. Well, here is the reality. I am a former overweight teenager. I became tired of looking in the mirror and seeing a big jelly-belly and a flabby chest. With a $20 set of cheap Kmart weights, cutting my portions at meals, and walking to school, I was able to lose 15 pounds while adding muscle.

While 15 pounds may not seem like a lot, it was the activity and exercise that developed the muscle and made the difference. My pants size shrank from a 36 waist to a 28 waist. I had noticeable changes and felt better about myself. I was no longer winded when I ran up the stairs and moving and lifting became easier. I was healthy and happy.

This success is not restricted to just me and I didn't spend hundreds of dollars on health clubs or equipment. Yes, I was younger and one might argue that my metabolism was much different then than it is now, but my answer is that this is simply an excuse…a copout. While it may not be easy, it can be accomplished. Everyone can be successful but, one must be committed to oneself.

Whether it is toning up the thighs and buttocks for the women, building killer arms for the guys, or flattening the abs for all of us, it is possible with hard work and dedication. The first step is making the decision to become healthier for you. Anyone who needs help can send an email to me, or to a member of the committee, and one of us would be happy to help in anyway we can.

I hope employees can join in the effort to become healthier. Whether it is a regular exercise routine consisting of pushups and sit-ups or adding an extra block or two when walking the dog, let's get out there and get healthy. **Let's exercise.**

The First Annual EMS Round Robin

By Chelsie L. Testerman, NREMT-B

The first annual EMS Round Robin was held Saturday, May 17, 2008 to kick off National EMS Week. It consisted of a "poker run" style tour of the EMS stations around the county, minus the gambling aspect. The object of the Round Robin was to visit all of the stations on the planned routes, participants could choose from the Northern Route, the Southern Route or the Complete Run. At each station individual companies had tours of their stations, snacks, and door prizes. The door prizes consisted of several Visa gift cards in various amounts, Company tee shirts and other items. Some EMS companies also made up themed gift baskets. The Round Robin registration started at 9 am and the event lasted until 4 pm. At four, the participants all met up at Toys R Us and made our way over to Longs Park to enjoy the annual Sertoma Chicken Barbeque, and to draw names for the winners of the door prizes.

As a new provider it was nice to tour the stations in the county and get to know members of the EMS Community. The stations who participated were, Lancaster EMS, Susquehanna Valley EMS, Manheim Township Ambulance, Manheim Memorial Ambulance, Northwest EMS, Ephrata Ambulance, New Holland Ambulance, Christiana Ambulance, Wakefield Ambulance, and New Providence Ambulance. Being that it was our first attempt at an event like this I believe that the committee from LEMSA headed by Bill Conrad did an exceptional job at organizing the event. We look forward to the participation of other EMS companies to make this event bigger and better for next year.

The Event was held with the cooperation of The Lancaster EMS Council. The Round Robin drew 14 people from various organizations. This event was held to start a fund for EMS provider's who lost their lives while performing there EMS duties. We are already looking forward to next year's event. This year's event drew the attention of the Lancaster County Commissioners who would like to take a bigger role next year.

Lancaster General Hospital and Pre-hospital IV's

By Ron Baier, EMTP, LGH EMS Communications Manager

Many people have asked; "what happens to the IV's we start in the field?" The policy at Lancaster General Hospital is to change the IV within 24 hours if initiated in the pre-hospital environment or at another facility. This is done for several reasons. The first reason for the change is the concern for sterile technique and the risk of secondary infection. As many of you who work in the pre-hospital arena are aware, there are many instances when the IV is started in a clean environment, however there are those times when an IV is initiated under less than sterile conditions. It is difficult for the hospital staff to know what the environment was like when the IV was started, so hence the within 24 hours rule. The only exception to the policy is unstable patients or patients with difficult venous access; the IV site will be maintained until the patient is stable or an alternative access site has been obtained.

The second reason for restarting the IV within 24 hours is the issue with tubing compatibility. Lancaster General Hospital uses a needle-less system. There are 5 ALS services in Lancaster County that routinely bring patients to our hospital, each of these services uses a different administration set, for the most part these IV sets are not needle-less and have to be changed to be compatible with the IV supplies currently used here at the hospital. Staann Watts, Nurse Manager of the IV team advises "we make every attempt to coordinate an IV line change with an IV restart".

Calculating Oxygen Consumption

By William M. Kanoff, BS, NREMT-P

You are assigned to transport a patient from Lancaster to Philadelphia. The patient is in severe respiratory distress and will require oxygen administration at 20 L/min throughout the duration of the transport. Your on-board "M" cylinder contains 1,400 PSI. Your primary "D" cylinder contains 1,000 PSI and your backup "D" cylinder is at 1,800 PSI. It will take approximately seven minutes from the time you place the patient on your litter in the sending facility, until you can hook up to the M cylinder in the ambulance. The trip to Philadelphia will take you 87 minutes. From the time you depart the ambulance at the receiving hospital, until you can connect to the wall oxygen in the hospital, will take another ten minutes. Will you have enough oxygen to complete the transport?

I often receive calls from crews assigned such transports asking how much oxygen will they need to successfully complete the trip. With just a little bit of math, we can find the answer. The formula is simple; we take the gauge pressure of the cylinder in PSI, subtract the safe residual pressure, multiply that number by the cylinder constant and then divide by the flow rate in Liters per minute. This will tell how long, in minutes, our cylinder will last.

"WOAH! What was that? That doesn't sound too simple to me."

Well, it isn't as complicated as it sounds. Let me try and break it down for you in a visual way. Figure 1 shows the formula in graphic form:

$$\frac{(\text{Gauge Pressure in PSI} - \text{safe residual pressure}) \times \text{constant}}{\text{Flow rate in L/min}}$$

For you algebra fans, that would be:

$$\frac{(G - R)\,C}{F}$$

"Now hold on a minute. None of this makes sense to me. What do all of these letters mean?"

As with any mathematical equation, especially in algebra, there are variables. The letters within the equation are our variables. Our goal is to find the value of X. What do the other letters mean? Let me explain.

G stands for gauge pressure. This is the pressure that is shown on the cylinder gauge when you check your oxygen during rig check and after a call. If your gauge is at 1,000 PSI during your rig check, your GP is 1,000.

R stands for safe residual pressure. The safe residual pressure is the amount of pressure remaining in the cylinder when it is, for our purposes, empty. The safe residual pressure is 200 PSI.

Using the GP of 1,000 and an RP of 200, the first part of our calculation would be:

$$\frac{800 \times 0.16}{\text{Flow in L/min}} = \text{Duration in flow minutes}$$

Or for you algebra fans, $\frac{(800)\ 0.16}{F} = X$

"Well now, that's fine and dandy. What the heck is the C?"

The "C" is the cylinder constant. How do we determine the cylinder constant? Well that is done by taking the volume capacity of your cylinder and dividing that number by the service capacity of the cylinder.

"Whoa dude, this is getting totally out of control!"

Don't sweat it. Now that I have you totally confused, put the formula for calculating "C" on the back burner. Here is a chart of cylinder constants:

Cylinder Constants	
Size	**Constant**
D	0.16
E	0.28
G	2.41
H	3.14
K	3.14
M	1.56

Source: AAOS

So now where are we? Oh yes. We need to take the results of our G minus R and multiply it by our cylinder constant. Since we are currently using our primary "D" cylinder, we must multiply 800 by 0.16.

$$\frac{800 \times 0.16}{\text{Flow in L/min}} = \text{Duration in flow minutes}$$

Or for you algebra fans, $\frac{(800)\ 0.16}{F}$

$$\frac{128}{20} = \text{Duration of flow in minutes}$$

That gives us 128. We need to know if it contains enough oxygen to make the seven minute trip from the patient's room to the ambulance. To do that, we must now divide 128 by F, or the liter flow per minute. In our scenario, the patient's on 20 L/min., so F equals 20.

When I do the math, I come up with an answer of 6.4, meaning that the cylinder will only last for 6.4 minutes. Not enough to get from the floor to the ambulance.

Now you try. You have an "M" cylinder with 1400 PSI, a patient on 20 L/min and an 87 minute trip. Will your on-board oxygen get you to your destination?

Of course this formula is fairly accurate, but Murphy is always waiting to throw us a curve ball when we least expect it. My advice to you is to play it safe and round down, not up, to the nearest whole number and use that as your guide. For example, in our situation mentioned above, our primary "D" cylinder will last 6.4 minutes. I would make that an even 6 minutes. And if the calculation came out to 6.8 minutes, I would still round down to 6. Better to have a little bit of a safety margin.

Sure, there are many variables that Mr. Murphy can throw at us, like traffic, bad weather, poor directions or a sudden need to increase the oxygen flow rate. If that happens, just recalculate your oxygen consumption rate. If you find you are running short, you may need to call for assistance.

If you are on a transport that requires multiple "M" cylinders, plan your trip accordingly. Ensure that you have enough "D" cylinder oxygen to make the switch.

Running out of oxygen during a long distance transport would be embarrassing to say the least. It can also lead to patient compromise and legal liability on the part of the crew and the organization. Running short is not an option. If your patient is on oxygen, calculate oxygen consumption to ensure that you have an adequate supply to complete the trip successfully. If you don't, be sure you top off you unit prior to patient pickup.

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Employee Spotlight

Lynda Lugo, EMT

What is your birth name? Lynda Garriga

Where were you born? Ponce, Puerto Rico

Are you married and do you have any children? Yes, I've been married for 18 years. My husband's name is Carlos and I have one daughter. Her name is Saray; she is 16 yrs. old.

What hobbies/activities are you involved in outside of work? My hobbies are walking in the park, working with crafts, traveling and shopping with my daughter. For activities I like to go to church and spend time with my family.

What is the most enjoyable part of your job? The people I work with and being able to help others with their needs and, overall the Spanish community.

What is the most difficult part of your job? WOW!!! The long distance transports...I always get lost!

What has been your most memorable call? There have been a few; I wouldn't know which one to pick.

What advice would you give to those just starting their career as an EMT? That you are not alone in this career. It involves teamwork and there is always someone around willing to help you. You have to be committed to the job and be sure that being an EMT is the job you want to pursue. There is no time to play around, you are dealing with the life of a patient.

James Morrow, EMT, Volunteer

What is your birth name? James Morrow

Where were you born? Ridgewood, New Jersey

Where do you live now? Lancaster, PA

What are your parents' names? Ruth and Jeff

What are the names of your siblings? Christopher, Daniel and Sarah

Are you married? No, I am not.

Do you have children? No, I do not.

How long have you been a volunteer with Lancaster EMS? 1 year

Do you volunteer for any other organizations? Just Lancaster EMS

What are your future goals? Possible medic school in the future, but I would have to have more time running as an EMT to get the experience.

Julie Rutt, NREMT-P

Birth name: Julie Diane Rutt Where I was born: Lancaster General Hospital

Hobbies/activities: Anything outdoors! Sports, biking and enjoying the outside. Also, crafty things such as scrapbooking. And a little known hobby of mine which is stamp collecting.

Most enjoyable part of the job: I love the fact that with every patient I encounter, regardless of their medical condition, I have the ability to make an impact on their lives. Sometimes it is very small; other times it is large. Sometimes it doesn't matter what I do medically; a kind word or a nice gesture can go much farther than any treatment I can give.

Most difficult part of the job: Misuse of 911. Patients who admit to using us as a taxi. The lack of understanding of what it means to be in EMS. So much of the public sees us as the "ambulance driver" with little knowledge of what our job truly means or what we had to do to get to this point. And to state the obvious, calls that will stick with you forever...wondering if you could have done something different … all the unknown "what ifs…"

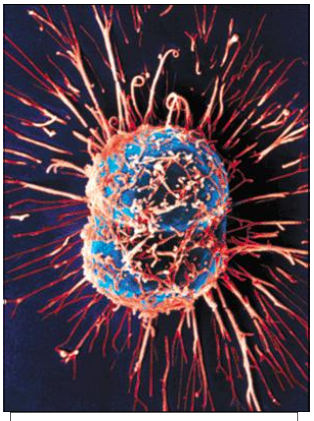
Most memorable call: I was working in a rural single provider squad system with volunteer BLS, and was dispatched for seizures. I had a 25 minute response time. Last time I was dispatched to this road for seizures, my patient seized from time of dispatch until my arrival, and required intubation en route to the hospital. OK, so now while responding my squad started making funny noises and I saw a pile of smoke trailing behind me. As I attempted to contact my platoon chief for his advice, the first due BLS truck scratched and second due BLS is dispatched. I couldn't get a hold of my chief, and my emergency lights stopped working. I pulled off the highway switched my master switch off and on and all appeared to be working fine. I continued on my way again for a few miles until my emergency lights go out again, more smoke poured out of my truck, and now I lost all my gauges, power steering, and almost all of my brakes. I was able to get off the road and park in a Penn Dot maintenance lot. At this point the second due BLS truck scratched, and third due was being dispatched. I was even more stressed out, because now I was definitely not getting to my call, and there wasn't even a BLS truck on the way. I was picturing my poor patient who I imagined was still seizing and now had a few less brain cells than he started with. With smoke coming out from under my hood I decided now would be a good time to inform County Dispatch that I was out of service. They dispatched the next medic, while toning out the 3rd due BLS for a second time. As I sat waiting for the tow truck , a pickup truck pulls up beside me. The driver introduces himself as an EMT and states he heard my plight on his scanner and asks if he can drive me to my call. Wanting to be accountable for my last known whereabouts, I contacted my chief again, who says to "Go for it!." I threw some gear in random EMS man's truck while the *fourth* due ambulance is now (finally!!!) responding. Me and my new friend finally arrived at the residence, and were still the first people to arrive. They were quite kind about it and stated they knew delayed EMS was a risk they take with living way out in the boonies. I breathed a sigh of relief after I found a patient who was not seizing, and is pleasantly talking to me. Me and the second due medic (who arrived 5 minutes after I did) cared for the odd presenting patient (several problems) for 25 minutes before the 4th due ambulance arrived. After a 30 minute transport time we arrived at the hospital and I dropped off my patient, never so relieved when a call was finally over!

Advice for those starting their paramedic career: I received some excellent advice from my instructor upon graduating from medic school. I think he sums it up pretty well, so to summarize the wise Mark Trueman:

1. This is the beginning, not the end. Decay of knowledge begins as soon as school is over. Continue educating yourself and share your knowledge with others.
2. Take time to teach someone else. Your knowledge is a privilege you possess, pass it on.
3. Serve your community. Make EMS visible. Teach and educate the public.
4. Professionalism is the difference between a good and bad paramedic. Intelligence knowledge and skill will never be recognized by your patient without integrity, empathy, diplomacy, teamwork, respect, appearance and advocacy.

Cancer Update from John Hopkins

AFTER YEARS OF TELLING PEOPLE CHEMOTHERAPY IS THE ONLY WAY TO TRY AND ELIMINATE CANCER, JOHN HOPKINS IS FINALLY STARTING TO TELL YOU THERE IS AN ALTERNATIVE WAY .



Dividing cancer cell

1. Every person has cancer cells in the body. These cancer cells do not show up in the standard
Tests until they have multiplied to a few billion. When doctors tell cancer patients that there are no more cancer cells in their bodies after treatment, it just means the tests are unable to detect the cancer cells because they have not reached the detectable size.

2. Cancer cells occur between 6 to more than 10 times in a person's lifetime

3. When the person's immune system is strong the cancer cells will be destroyed and prevented
From multiplying and forming tumors.

4. When a person has cancer it indicates the person has multiple nutritional deficiencies. These
Could be due to genetic, environmental, food and lifestyle factors.

5. To overcome the multiple nutritional deficiencies, changing diet and including supplements will strengthen the immune system.

6. Chemotherapy involves poisoning the rapidly-growing cancer cells and also destroys rapidly-growing healthy cells in the bone marrow, gastro-intestinal tract etc, and can cause organ damage, like liver, kidneys, heart, lungs etc.

7. Radiation while destroying cancer cells also burns, scars and damages healthy cells, tissues and organs.

8. Initial treatment with chemotherapy and radiation will often reduce tumor size. However prolonged use of chemotherapy and radiation do not result in more tumor destruction.

9 When the body has too much toxic burden from chemotherapy and radiation the immune system is either compromised or destroyed, hence the person can succumb to various kinds of infections and complications.

CANCER UPDATE FROM JOHN HOPKINS HOSPITAL , U S - PLEASE READ

1. No plastic containers in micro.

2. No water bottles in freezer.

3. No plastic wrap in microwave.

Johns Hopkins has recently sent this out in its newsletters. This information is being circulated at Walter Reed Army Medical Center as well.
Dioxin chemicals causes cancer, especially breast cancer.
Dioxins are highly poisonous to the cells of our bodies.
Don't freeze your plastic bottles with water in them as this releases dioxins from the plastic.
Recently, Dr. Edward Fujimoto, Wellness Program Manager at Castle Hospital , was on a TV program to explain this health hazard. He talked about dioxins and how bad they are for us.. He said that we should not be heating our food in the microwave using plastic containers.
This especially applies to foods that contain fat. He said that the combination of fat, high heat, and plastics releases dioxin into the food and ultimately into the cells of the body.
Instead, he recommends using glass, such as Corning Ware, Pyrex or ceramic containers for heating food. You get the same results, only without the dioxin. So such things as TV dinners, instant ramen and soups, etc., should be removed from the container and heated in something else.
Paper isn't bad but you don't know what is in the paper. It's just safer to use tempered glass, Corning Ware, etc. He reminded us that a while ago some of the fast food restaurants moved away from the foam containers to paper. The dioxin problem is one of the reasons.

Also, he pointed out that plastic wrap, such as Saran, is just as dangerous when placed over foods to be cooked in the microwave. As the food is nuked, the high heat causes poisonous toxins to actually melt out of the plastic wrap and drip into the food. Cover food with a paper towel instead.

10. Chemotherapy and radiation can cause cancer cells to mutate and become resistant and difficult to destroy. Surgery can also cause cancer cells to spread to other sites.

11. An effective way to battle cancer is to starve the cancer cells by not feeding it with the foods it needs to multiply.

CANCER CELLS FEED ON:

A. Sugar is a cancer-feeder. By cutting off sugar it cuts off one important food supply to the cancer cells. Sugar substitutes like NutraSweet, Equal,Spoonful, etc are made with Aspartame and it is harmful. A better natural substitute would be Manuka honey or molasses but only in very small amounts. Table salt has a chemical added to make it white in color . Better alternative is Bragg's aminos or sea salt.

B. Milk causes the body to produce mucus, especially in the gastro-intestinal tract. Cancer feeds on mucus. By cutting off milk and substituting with unsweetened soya milk cancer cells are being starved.

C. Cancer cells thrive in an acid environment. A meat-based diet is acidic and it is best to eat fish, and a little chicken rather than beef or pork. Meat also contains livestock antibiotics, growth hormones and parasites, which are all harmful, especially to people with cancer.

D. A diet made of 80% fresh vegetables and juice, whole grains,seeds, nuts and a little fruits help put the body into an alkaline environment.About 20% can be from cooked food including beans. Fresh vegetable juices provide live enzymes that are easily absorbed and reach down to cellular levels within 15 minutes to nourish and enhance growth of healthy cells. To obtain live enzymes for building healthy cells try and drink fresh vegetable juice (most vegetables including bean sprouts)and eat some raw vegetables 2 or 3 times a day. Enzymes are destroyed at Temperatures of 104 degrees F (40 degrees C).

E. Avoid coffee, tea, and chocolate, which have high caffeine.Green tea is a better alternative and has cancer-fighting properties. Water-best to drink purified water, or filtered, to avoid known toxins and heavy metals in tap water. Distilled water is acidic, avoid it.

12. Meat protein is difficult to digest and requires a lot of digestive enzymes. Undigested meat remaining in the intestines become putrified and leads to more toxic buildup.

13. Cancer cell walls have a tough protein covering. By refraining from or eating less meat it frees more enzymes to attack the protein walls of cancer cells and allows the body's killer cells to destroy the cancer cells.

14. Some supplements build up the immune system (IP6, Flor-ssence,Essiac, anti-oxidants, vitamins, minerals, EFAs etc.) to enable the body's own killer cells to destroy cancer cells. Other supplements like vitamin E are known to cause apoptosis, or programmed cell death, the body's normal method of disposing of damaged, unwanted, or unneeded cells.

15. Cancer is a disease of the mind, body, and spirit. A proactive and positive spirit will help the cancer warrior be a survivor. Anger, unforgiveness and bitterness put the body into a stressful and acidic environment. Learn to have a loving and forgiving spirit. Learn to relax and enjoy life.

16. Cancer cells cannot thrive in an oxygenated environment. Exercising daily, and deep breathing help to get more oxygen down to the cellular level. Oxygen therapy is another means employed to destroy cancer cells.

Special Events Calendar

July12 **Millersville Lions Community Day**
1500 to 2000 2 EMT's

July 21 **New Era Tournament, Baseball**
1645 to 2230 1 EMT

July 22 **New Era Tournament, Baseball**
1645 to 2230 1 EMT

July 28 **New Era Tournament, Baseball**
1645 to 2230 1 EMT

July 27 **Rubber Ducky Race, Lancaster County Park**
1400 to 1800 2 EMT's

July 29 **New Era Tournament, Baseball**
1645 to 2230 1 EMT

August 12 **Penn Manor Football**
0930 to 1300 2 EMT's

August 16 **McCaskey Football**
0930 to 1230 2 EMT's

August 17 **Covered Bridge Race, L Bike Club, Greenfield Corporate Center**
0800 to 1600
1 Medic, 1 EMT
Absolutely, Definitely Bikes!!!

August 22 **Conestoga Valley Football**
1630 to 2200 2 EMT's

August 23 **Stevens College Football**
1300 to 1630 2 EMT's

August 29 **McCaskey Football**
1830 to 2200 2 EMT's

September 5 **Office of Aging, Senior Picnic, Longs Park**
0830 to 1400
1 Medic, 1 EMT

September 5 **Conestoga Valley Football**
1830 to 2200 2 EMT's

September 5 **Penn Manor Football**
1830 to 2200 2 EMT's

September 6 **Millersville University Football**
1230 to 1630 2 EMT's

September 6 **Strasburg Heritage Day**
0900 to 1600
6-12-10 ODC

September 12 **McCaskey Football**
1830 to 2200 2 EMT's

September 13 **Millersville University Football**
1230 to 1630 2 EMT's

September 13-21
Thomas the Tank

September 13
Thomas the Tank at Strasburg RR
0900 to 1700 2 EMT's

September 14
Thomas the Tank at Strasburg RR
0900 to 1600 2 EMT's

September 15
Thomas the Tank at Strasburg RR
0930 to 1600 2 EMT's

September 16
Thomas the Tank at Strasburg RR
0930 to 1600 2 EMT's

September 17
Thomas the Tank at Strasburg RR
0930 to 1600 2 EMT's

September 17 **Solanco Fair Parade, Quarryville**
1700 to 2000 2 EMT's

September 18
Thomas the Tank at Strasburg RR
0930 to 1600 2 EMT's

September 19
Thomas the Tank at Strasburg RR
0930 to 1600 2 EMT's

September 19 **Conestoga Valley Football**
1830 to 2200 2 EMT's

September 20 **Stevens College Football**
1300 to 1630 2 EMT's

September 20
Thomas the Tank at Strasburg RR
0900 to 1700 2 EMT's

September 21
Thomas the Tank at Strasburg RR
0900 to 1600 2 EMT's

September 26 **Conestoga Valley Football**
1830 to 2200 2 EMT's

September 26 **Penn Manor Football**
1830 to 2230 2 EMT's

Faces of Lancaster EMS

Spine Article—Part II

By Dave Rathbun, NREMT-P

Due to its intricate three-dimensional structure and length, the spinal column is susceptible to integrity and shape degradation caused by various degenerative disorders, trauma, or deformities.

1.1 Degenerative Spinal Disorders

Roles of the Spinal Column

Structural support	Controls balance and weight distribution Connects upper and lower parts of the body Provides structural support to the head, chest, and shoulders
Protection	Protect spinal cord and neural roots Shields chest and internal organs
Base of attachment	Ligaments, tendons, and muscles
Flexibility and mobility	Flexion Extension Side bending Rotation
Other functions	Bones produce red blood cells Mineral storage

Source: Millennium Research Group.

Degenerative disc disease (DDD) refers to the natural degradation of the intervertebral disc caused by repetitive stresses on the spinal tissues leading to a loss of flexibility, elasticity, and shock-absorbing properties. Moreover, the annulus fibrosis ligaments that surround the disc become brittle and susceptible to tearing and the soft gel-like center of the disc, called the nucleus pulposus, starts to lose it's water content and shrink. Repetitive stresses can be rotational or compressive in nature, and can lead to problems in the facet joint, the nerve root canal, the intervertebral disc, or the vertebral body. These degenerative diseases transpire most often in the lumbar region of the spine and are typically manifested as chronic back pain. Possible treatments for DDD may include pain management treatments, disc removal, or spinal fusion and new to the market are artificial discs.

Herniated Disc

The intervertebral disc serves as a joint between adjacent vertebral bodies allowing them to shift with respect to one another. As the annulus fibrous (the disc's outer lining) deteriorates, the soft center squeezes out through the opening, creating a "slipped" or "herniated" disc. Herniated disc is the most common form of DDD, affecting up to 0.5% of men between 24 to 60 years of age, and occurs less frequently in women. Disc herniation arises due to injury or aging and is often aggravated by malnutrition and/or poor lifting dynamics. Surgical treatment for disc herniation consists of only laminotomy, or a laminotomy accompanied by a discectomy.

Osteoarthritis

Osteoarthritis is a degenerative joint disease generally characterized by the breakdown of the cartilage—the slippery tissue that cushions the ends of bones in a joint. Healthy cartilage absorbs energy as bones glide over one another during the course of regular physical movement. In osteoarthritis, the surface layer of cartilage breaks down allowing bones under the cartilage to rub together causing pain, swelling, and loss of joint movement. Acute cartilage wear can occur due to aging or as a result of one or more traumatic events, such as a sprained joint. The disease commonly develops in middle-aged and elderly people and can range from very mild to very severe.

Osteoporosis

Osteoporosis is a disease characterized by low bone mass and the deterioration of the structural integrity of bone tissue, leading to bone fragility and an increased susceptibility to fractures of the hip, spine, and wrist. Osteoporosis is often referred to as the "silent disease" because bone loss occurs gradually without symptoms. People may be unaware they have the disease until it has advanced to such a point that any sudden strain, bump, or fall leads to a fracture or a vertebra collapse. Collapsed vertebrae may initially be recognized in the form of severe back pain, loss of height, or spinal deformities such as kyphosis or deformed posture. Risk factors of osteoporosis include personal history of fracture after age 50, current low bone mass, post menopause, advanced age, family history, past eating disorders, low lifetime calcium intake, vitamin D deficiency, an inactive lifestyle, smoking, and excessive alcohol use.

Rheumatoid Arthritis

Rheumatoid arthritis is a chronic systemic disease that leads to the inflammation of the synovium of articular joints and is caused by an abnormal functioning of the immune system. The joints are attacked by the patient's own antibodies resulting in pain, reduced mobility, and ultimately the destruction of cartilage, tendons, and ligaments.

Spinal Stenosis

Spinal stenosis disease, which may be either congenital or developmental, refers to the tightening or narrowing of the vertebral canal that may exert pressure or impinge on the nerves or spinal cord. Narrowing can also occur due to intervertebral disc degeneration or elongation of the nerve canal. Surgical treatment of spinal stenosis involves decompression surgery or the removal of tissue impinging the canal

Spondylosis

Spondylosis is a form of stenosis that occurs more often due to bone growth rather than intervertebral degeneration, although the two may happen simultaneously. In spondylosis, osteophytes grow on the inside of the spinal canal, leading to narrowing of the canal and exerting pressure on the nerve roots. Spondylosis typically occurs in the lumbar region, although Spondylolisthesis

Spondylolisthesis refers to the slippage of one or more vertebrae in relation to others. The disease occurs in about 5% of the US population but, in most cases, muscles and ligaments provide enough support to prevent the discs from displacing too far. For mild spondylolisthesis, the patient can be treated with a basic exercise program but, occasionally, conservative treatment is insufficient. Problematic displacements can be treated by decompression surgery or by spinal fusion.

1.2 Deformity Spinal Disorders

Spinal deformities are irregular curvatures of the spine that affect spinal stability and load distribution leading to back pain. Such deformities may develop due to congenital problems, poor posture, or accelerated puberty. Regular deformity disorders include; scoliosis (sideways curvature of the spine), lordosis (inward curvature of the spine), and kyphosis (outward curvature of the spine).

Scoliosis

Scoliosis is the lateral abnormal curvature of the spine, occurring predominantly in adolescent females. This abnormal spinal curvature can manifest itself as a postural problem, or it may be viewed as a side way shift of the rib cage. Experts are uncertain as to the root cause of scoliosis. Aside from the rare congenital scoliosis, idiopathic scoliosis does not emerge until an adolescent growth spurt. Nevertheless, most experts believe that there is a familial predisposition for the disorder. Relatively few patients with scoliosis require surgery, and scoliosis can usually be controlled with exercise during puberty. If the curvature is not serious by the time the patient reaches maturity, scoliosis typically does not worsen with age. Adults with curvature of the spine due to scoliosis are generally more susceptible to back problems.

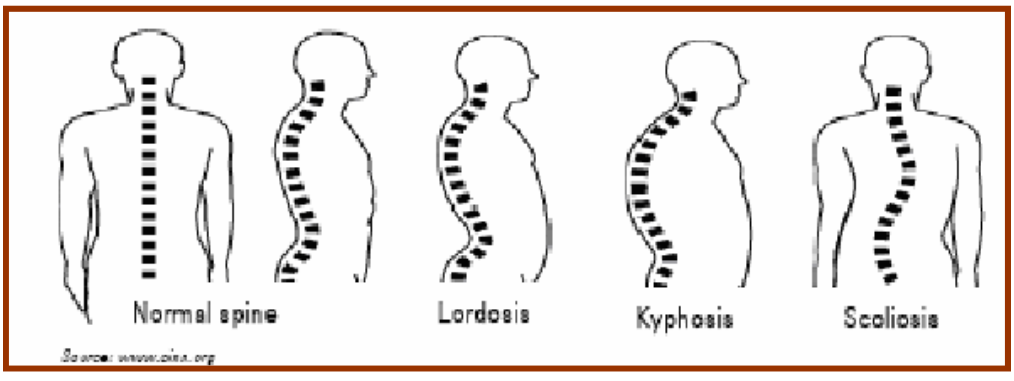
Lordosis

The spine has a normal lordosis contour of the neck and lower back, but excessive lordosis may cause an extreme convex curvature of the lumbar spine. Lordosis may be congenital, or it may occur due to acromegaly, ankylosing spondylitis, cerebral palsy, hyperflexion sprain, or stress on the pars interarticularis.

Juvenile lordosis typically fades away without medical intervention, but in few cases, the disease may worsen gradually leading to increased strain on the lower spine and chronic pain. Appropriate exercises and posture may help to reduce arching, but for some rare cases, a back brace or an operation may be required.

Kyphosis

Kyphosis is the abnormal convexity of the thoracic spine, in which excessive curvature often leads to a round back deformity (see Exhibit 1-4). Kyphosis can be congenital or may arise due to metabolic problems, neuromuscular conditions, spina bifida, or Scheuermann's disease. In adults, kyphosis may also emerge as a result of osteoporotic compression fractures, degenerative disease (such as arthritis), or spondylolisthesis. Kyphosis with a structural pathology may require medical intervention.



LITTLE THINGS

By Paul Zook, EMTP

- You arrive to work a few minutes early so you can relieve a tired co-worker who is hoping not to get a late call. It's just a small thing but it's a courtesy to your fellow worker.
- You write your chart when you return from a call rather then sleep or finish watching the movie. It's just a little thing, but it assures that the chart is completed in a timely fashion while the details are fresh in your mind. It also helps with getting the billing done without delay.
- You get your insurance forms and HIPPA papers signed. It makes the office staff's job a lot easier and bills are sent out sooner. It's just a small thing, but the outcome affects our bottom line.
- You remember your patient's name and call them by it rather then "Sweetie or Hon" It's just a little thing, but it shows respect.
- You sit beside the patient rather then the captain's seat. You converse with them, (if they are willing), and treat them like you would want your family member treated. It's just a little thing, but it makes your patient less anxious.
- You come to work with a clean, unwrinkled uniform and good hygiene. It's just a little thing, but it portrays a professional who cares.
- You keep your unit clean and stocked. It's just a little thing, but it shows the community that Lancaster EMS is prepared and takes pride in what we do.
- You graciously accept transport information without arguments or verbal abuse to the dispatcher. It's your job, its pays the bills and makes the dispatcher's job much more enjoyable. It's just a little thing, unless you are the dispatcher.
- You minimize standing and talking so as not to be late for transports. You arrive on time and with the proper equipment. It's just a little thing, but it shows the facility and the pt. that you care about their schedule.
- You help co-workers or fellow EMS providers with lifting or cleanup. It's just a little thing, but shows others that you're a team player.
- You schedule enough time off so you are rested and are able to perform your job properly. It makes you more cheerful and easier to work with. Plus, it's NOT a little thing if it affects the outcomes of your patients.
- It's all these little things that you do that makes Lancaster EMS a great place to work and one of the best EMS Companies in Lancaster County.