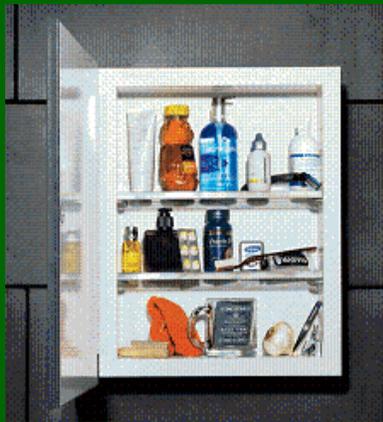


Health & Fitness

Structure Fire in Magalia

VOLUME 3, ISSUE 1

JANUARY 2013



Your Winter Health Survival Kit

By: Paige Greenfield

Even if you're a 21st-century Scrooge, we predict you'll be doing a lot of giving and receiving this holiday season. Maybe a guy at your job will hand you the rhinovirus (he shouldn't have!), after which you'll go home and promptly regift it to your family. Or perhaps a stranger will sneeze, donating some mucus-wrapped influenza to you and everyone else in the checkout line. It's enough to make a man feel all warm and fuzzy inside, though that's probably just your low-grade fever.

Coughing and congestion aside, the real problem is that these gifts truly keep on giving. "Your immune system launches an inflammatory storm to fight off the invaders," says David Agus, M.D., a professor of medicine at the University of Southern California and the author of *The End of Illness*. "Just 2 weeks of this total-body inflammation—which is the time it takes to recover from a bad cold or the flu—can increase your long-term risk of heart disease, cancer, and diabetes."

Maybe you didn't expect a present, but we have something for you anyway: a custom plan for staying well and, if you do fall ill, for bouncing back fast.

ANTIVIRALS

FOR: Flu survival
WHEN: *As soon as the symptoms strike*
The flu can hit with the speed and fury of a UFC fighter. So if you wake up feeling like you've been pummeled by Georges St-Pierre, ask your doctor ASAP about a prescription antiviral med, such as Tamiflu or Relenza. "They work best within 24 to 48 hours of the onset of symptoms," says Dr. Agus. These drugs won't eliminate all symp-

toms, but they lessen their severity and reduce recovery time by 1 to 2 days. Note: Your doctor may advise sticking to OTC options, since overprescribing of antivirals could cause drug resistance. (Tis the season for coughing, aching, and stuffy heads.

CARDIO EXERCISE

FOR: Cold survival
WHEN: *At the start of the season*
Those sweat sessions not only fight winter flab but also buff up your immune system. An Appalachian State University study found that people who exercised at least 5 days a week took 43 percent fewer sick days due to colds in fall or winter than their lazier peers. "Every bout of exercise enhances circulation of key immune cells," says lead author David Nieman, Dr.P.H. Steady-state cardio or circuit training is best, because rest periods during interval and strength training may curb the cold-fighting effect of exercise. Aim for 30 minutes of activity five days a week.

NASAL IRRIGATION

FOR: Flu survival
WHEN: *While you're sick*
Keep your nose clean. When flu patients squirted a saline solution into their nostrils three times a day for 8 days, they recovered about 2 days faster, a recent study from China found. Why? Nasal irrigation may rinse out the virus as well as inflammatory molecules. Use a saline solution, such as NasalCare (\$15, nasal-cleanse.com). But be careful—two deaths have been linked to irrigation with amoeba-contaminated neti pots. Use only distilled water or H2O you boiled first. When you're done, clean the container with fresh disinfected water and let it air-dry.

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Crock-Pot Recipe

Wine & Tomato Braised Chicken

Here chicken thighs cook in a simple herb-infused tomato-and-wine sauce. The bone-in thighs give it plenty of hearty flavor, and since you cook them without the skin, it keeps the dish healthy. There's plenty of sauce, so serve it over pappardelle or brown rice. Steamed broccoli or sautéed broccoli rabe tossed with olive oil and a splash of lemon juice complete

10 servings**Active Time:** 45 minutes**Total Time:** 3 3/4-6 3/4 hours**Ingredients**

- 4 slices bacon
- 1 large onion, thinly sliced
- 4 cloves garlic, minced
- 1 teaspoon dried thyme
- 1 teaspoon fennel seeds
- 1 teaspoon freshly ground pepper
- 1 bay leaf
- 1 cup dry white wine (see Tip)
- 1 28-ounce can whole tomatoes, with juice, coarsely chopped
- 1 teaspoon salt
- 10 bone-in chicken thighs (about 3 3/4 pounds), skin removed, trimmed
- 1/4 cup finely chopped fresh parsley

Recipe courtesy of:

EatingWell.com
WHERE GOOD TASTE MEETS GOOD HEALTH

Preparation

1. Cook bacon in a large skillet over medium heat until crisp, about 4 minutes. Transfer to paper towels to drain. Crumble when cool.
2. Drain off all but 2 tablespoons fat from the pan. Add onion and cook over medium heat, stirring, until softened, 3 to 6 minutes. Add garlic, thyme, fennel seeds, pepper and bay leaf and cook, stirring, for 1 minute. Add wine, bring to a boil and boil for 2 minutes, scraping up any browned bits. Add tomatoes and their juice and salt; stir well.
3. Place chicken thighs in a 4-quart (or larger) slow cooker. Sprinkle the bacon over the chicken. Pour the tomato mixture over the chicken. Cover and cook until the chicken is very tender, about 3 hours on High or 6 hours on Low. Remove the bay leaf. Serve sprinkled with parsley.

Variation: Turn 2 cups each of leftover chicken and sauce into Braised Chicken Gumbo. Heat 1 tablespoon extra-virgin olive oil in a large saucepan over medium heat. Add 1 diced medium red or green bell pepper and 2 tablespoons all-purpose flour and cook, stirring, until the pepper is beginning to soften and the flour is golden brown, about 2 minutes. Add 2 cups shredded chicken, 2 cups sauce, 2 cups reduced-sodium chicken broth, 1 cup sliced okra (fresh or frozen, thawed), 3/4 cup instant

brown rice (see Tip) and 1/8-1/4 teaspoon cayenne pepper. Bring to a boil. Reduce the heat and simmer until the flavors meld and the okra is tender, about 10 minutes.

Nutrition

Per serving: 260 calories; 13 g fat (4 g sat , 5 g mono); 88 mg cholesterol; 6 g carbohydrates; 25 g protein; 1 g fiber; 492 mg sodium; 392 mg potassium.

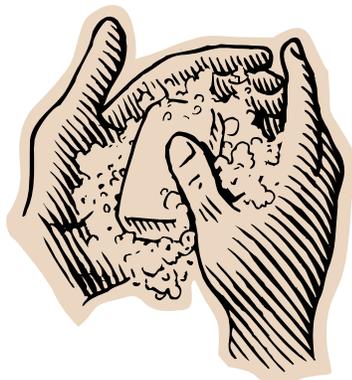


Tip: If you prefer, substitute 1 cup reduced-sodium chicken broth mixed with 1 tablespoon fresh lemon juice for the wine.

Make Ahead Tip: Prepare Steps 1 & 2, cover and refrigerate bacon and sauce separately for up to 1 day. To finish, bring the sauce to a simmer and continue with Step 3. The cooked chicken and sauce can be refrigerated for up to 3 days. |

Winter Health Kit (cont. from Pg 1)**HAND SOAP****FOR:** Flu survival**WHEN:** Before you're sick

You're not a surgeon but you should wash your hands like one: Scrub with soap and warm water for 20 seconds, and dry your hands for 20 seconds with a paper towel or clean hand towel—not a hot-air dryer, which can actually increase the germ count. As for frequency, embrace your OCD side: A 2012 study in the journal *Preventive Medicine* found that people who washed their hands at least five times a day were 35 percent less likely to catch the flu than those who lathered up less. Don't bother with antimicrobial soaps. The standard stuff is just as good.

VITAMIN D**FOR:** Flu survival**WHEN:** Before you're sick

Take the D train to Wellville. People with low circulating levels of vitamin D may have impaired infection-fighting responses because their blood has less of the virus-killing compound cathelicidin, say researchers in Spain. A shortage of sunlight from October through March means your body may be unable to manufacture enough D on its own. So during the cold-weather months, supplement your diet each day with 600 to 2,000 IU of vitamin D3 (or take the dose recommended by your physician), advises study author Victor Martinez-Taboada, M.D.

HONEY**FOR:** Cold survival**WHEN:** While you're sick

The best cough syrup comes in a bear-shaped bottle. Honey quells a cough more effectively than the active ingredient in most over-the-counter cold meds, a Penn State study found. Nerves that control coughing may interact

Continued on Page 7



Quick Shots



Brothers and Sisters,

I would like to get the interest from the field on the idea of a Walk-A-Thon fundraiser for sometime in the spring or early summer. The idea here is Butte County/ Cal fire would be raising money for a cause or charity (something we can put our name on). This would be a Firefighter and family fund raiser. The proceeds from this event will go to a charity or cause of our choosing. I would like this to be a 24 hour event. The rules for the event are as follows:

- **You may compete as an individual and walk for 24 strait hours with 24 total minutes of break time for restroom, eating, ect.**
- **You may be on a relay team for 24 hours. Each member walks for a certain time frame designed by the team.**
- **You may be a sponsored individual for laps completed, or time walked.**
- **You may be sponsored on a relay team for laps completed, or time walked.**

We are shooting for the sponsors to pledge 10 cents a lap, or a flat sum of money for walking the entire 24 hours.

Feedback from the field is greatly appreciated. If I don't hear from anyone, I will assume no one is interested. Contact FC Waters or myself if interested.

Thanks,

Kyle Wisdom
Sta.33
530-872-6323



IAPS Data from November/December 2012

"SAFETY CORNER"

Reportable Injuries: 10
Record Only Injuries: 29
Injury by Activity:
PT:
Incident: 39
Training:
Station Duties:
Injury by Body Part:
Head:
Torso/Back: 3
Extremities:
Heat Illness:
Exposure: 36

- 12/6/12, Green Sheet, 12CARRU0112639– Structure Fire
- 12/17/12, Safety Communication 2012-07—CO Awareness & FF Safety
- 12/27/12, Blue Sheet, 12CARRU0112683– Near Miss—MVA
- 12/28/12, TGST—Structure Fire Scenario

The Three Fastest Ways to End Your Career in 2013



<http://theemtspot.com>

With the new year dawning brightly and all that ugly Mayan business behind us, I thought it might be a good time to address some of the best ways to bring your professional world to an untimely end in the new year. Some of the most effective ways to end your career prematurely remain consistent favorites, while others are new, but every bit as effective as the tried and true methods.

Based on the news reels and accident reports from 2012, these three behaviors are clearly the best ways to end your career. They may not be as elegant as the flight attendant who deployed the emergency slide, grabbed some beers and told everyone on the plane to f**k themselves, but many these actions can land you on the pages of newspapers as well as the unemployment line.

1) Driving Fast and Recklessly

Most vehicular accidents are avoidable. If your apparatus strikes anything while you are traveling emergent, you are likely at fault. Consider that research seems to suggest that our emergent responses are rarely if ever a determining factor in the patients outcome. With that in mind, understand that your additional reckless shenanigans, designed to shave a couple more seconds off of the already ineffective emergent response do nothing except incur needless risk and demonstrate your profound inexperience (and/or lack of judgment).

When you get behind the wheel of your apparatus, drive safely and maintain your awareness. Driving remains one of the most dangerous parts of our job. Doing it well for the rest of your career is the single biggest thing you can do to ensure that career is a long one.

2) Lifting Improperly

The prams get better, the lifting devices get more advanced and the patients get bigger. One thing remains the same. Most of us leave our EMS careers with wrecked backs. You don't have to do that. You don't have to lift patient loads when they are beyond your ability to do so safely. Call for more resources. Make a better plan. Ask for more help. I don't care how urgent the situation seems. The duty to act does not include you

carrying 200 lbs of flesh down a rickety staircase.

It is your employers responsibility to make sure that the resources are available to allow you to do your job safely. When you play along with the too-few-resources-on-scene game, you only perpetuate the problem. You make it more likely that you will sustain a job ending back injury and you make it more likely that the person who comes after you will do the same thing. (Like the dozens who came before you already did.) Stop the madness. Protect your back.

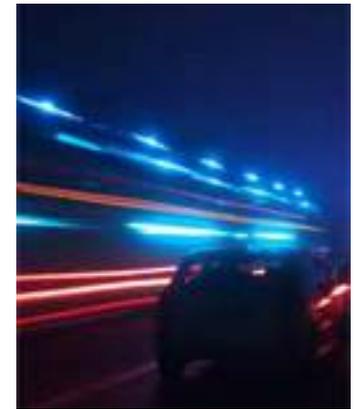
3) Uploading Pictures and Comments to Facebook

Social media has given all of us an audience that was impossible only five short years ago. Yes, we all used to take pictures on scenes. Yes, many of us shared them in inappropriate forums. We even had inappropriate angry rats about our employers in the middle of the break room. But we were protected from our own stupidity by the



relatively small size of the audience available to us. Sure, we could pull some old Polaroids from a drawer and talk about them, but we couldn't instantly share those inappropriate photos with hundreds of people instantly. We could make angry comments about our jobs, but we couldn't broadcast them.

It isn't always obvious, when you hit that share button, just how far and how fast media can travel over social media networks. We in the social media arena are well aware of how staggeringly large your audience can become in a few short days if the content you post goes viral. Just ask Lindsey Stone (pictured above) how quickly a single Facebook photo can change your whole life.



More than one EMT has found out the hard way how unforgiving patients, their families and their friends can be if they encounter inappropriately shared moments of their personal lives on social media. More than one EMT has learned how serious their employers were about their reputations when they posted an angry rant in the name of honesty and freedom of speech.

When you open up your social media networks, be cautious about what you decide to share and keep it professional.

I can't warn everyone. And even if I could, not everyone would listen. Such is life. The calendar will soon roll over to January 2013. The blogs will talk about the latest tragic ambulance or fire apparatus accident. The doctors offices will continue to see a steady stream of EMS workers with back injuries. The news threads around the internet will report the latest employee fired for their social media behavior.

But not you. We won't be talking about you. Because you know better.



Prevention is the key!

Analysis Supports Limiting Spinal Immobilization in Car Crash Patients

Patients meeting certain criteria aren't likely to have a cervical spine fracture

Keith Wesley, MD, FACEP | Marshall J. Washick, BAS, NREMT-P



Review of: Sochor M, Althoff S, Bose D, et al. Glass intact assures safe cervical spine protocol. *J Emerg Med.* 2012 Dec 20, Epub ahead of print.

The Science: This is a retrospective cohort analysis from a U.S. National Highway Traffic Safety Administration database (National Automotive Sampling System Crashworthiness Data System) that examined crashes from 1998 to 2008. Investigators were interested in vehicle window integrity and the relationship to restrained, front seat (driver and passenger) occupants in motor vehicle crashes (MVCs) that required vehicles to be towed from the scene. Using only objective data, investigators hypothesized that if patients met certain criteria: age 16-60, no damage to the vehicle's windows occurred, no airbags were deployed, and front seat occupants were restrained—that a patient isn't likely to have a cervical spine (C-spine) fracture. Investigators included more than 14,000 patients in the analysis, and using a 2x2 contingency table for analysis, concluded the test had a specificity (the probability of a positive test actually being positive) of 99%, a sensitivity (the probability of a negative test actually being negative) of 54%, and a predictive value negative (proportion of true negative tests) of 99.9%. This means that patients who met all the criteria were almost 100% not likely to have C-spine injury.

Medic Marshall: I'd like to start off by congratulating these investigators on this study; it is truly a simple, yet remarkable study that will contribute to the advancement of EMS care. With that said, let's examine this study a little further. First of all, it should be noted that this study pulled data from a national database, which may have a tendency to skew the results in this study, but I wouldn't go so far as to say it would skew them so dramatically one should discredit the results. As the authors state, a prospective study would definitely help to validate the results herein. I do believe this would not be too much of a tremendous undertaking for any aspiring EMS researchers out there.

Secondly, studies like this, along with NEXUS and the Canadian C-spine Rule, are starting to show cervical injuries in MVCs are actually fairly

rare. More often than not, we're immobilizing patients that probably don't require it. Investigators in the study pointed out that immobilizing patients are not completely without their risks as well. For all the EMS practitioners who have been placed on a long backboard in school know how uncomfortable—despite padding—they are. So again, the less we need to place people on a hard piece of plastic and make their life a little more comfortable, the better. Finally, what I think is so great about this study is its pure objectiveness. In a short, simple list of criteria, EMS could have a tool at their hands that could broaden the number of patients who are made more comfortable by not boarding them. And because of the objectiveness of the study, we can also capture those intoxicated patients who are forced onto backboards, simply because they were under the influence of alcohol.

At the end of the day, I would encourage anyone interested in incorporating this tool into their repertoire to push those who do research, especially medical directors, to examine this study and conduct their own prospective trials to eventually help make this standard practice.

Doc Wesley: Every day, more evidence accumulates indicating that we are potentially creating more

harm than good with spinal immobilization. This study, while having some limitations, offers yet another tool that may allow us to better determine the likelihood of an unstable spinal injury.

The primary limitation of the study is that it's retrospective and only cars that had to be towed from the scene are included in the national database. However, it's reasonable to conjecture that cars that are drivable after the accident would have sustained less damage and subjected the occupant to less energy.

Although most of us have already adopted the Canadian and NEXUS criteria for selective spinal immobilization, two groups of patients are frequently excluded: intoxicated patients and those with distracting injuries that result in erring on the side of spinal immobilization. Using the GLASS criteria, they could be included and avoid the unnecessary pain and suffering of the backboard. Although several professional organizations continue to debate the role of spinal immobilization in EMS, I have already adopted an aggressive stance. Those that might benefit from immobilization are transported only with a cervical collar (C-collar) and no backboard. It's time we recognized that backboards can harm patients and should be relegated to extrication only.

Abstract

Background: Selective cervical spine immobilization performed by Emergency Medical Services (EMS) is being utilized with increasing frequency. These protocols, although very sensitive, still include subjective data such as "mild cervical discomfort." The aim of this study is to create an objective clinical decision rule that would enhance the selective approach for cervical spine immobilization in patients aged 16–60 years.

Study Objective: It is hypothesized that, in a motor vehicle crash, the integrity of the involved vehicle's glass window and airbag status is an excellent objective measure for the amount of energy a vehicle occupant has experienced during the crash.

GLASS Intact Assures Safe Spine (GLASS) is an easy and objective method for evaluation of the need for prehospital cervical spine immobilization.

Methods: A retrospective cohort study was performed with sample motor vehicle crash cases to evaluate the performance of the GLASS rule. The National Accident Sampling System-Crashworthiness Data System (NASS-CDS) was utilized to investigate tow-away motor vehicle crashes, including their glass damage characteristics and occupant injury outcomes, over an 11-year period (1998–2008). Sample occupant cases selected for this study were patients aged 16–60 years, who were belt-restrained front seat occupants involved in a crash with no airbag deployment, and no glass damage before the crash.

Results: A total of 14,191 occupants involved in motor vehicle crashes were evaluated in this analysis. The results showed that the sensitivity of the GLASS rule was 95.20% (95% confidence interval [CI] 91.45–98.95%), the specificity was 54.27% (95% CI 53.44–55.09%), and the negative predictive value was 99.92% (95% CI 99.86–99.98%).

Conclusion: The GLASS rule presents the possibility of a novel, more objective tool for cervical spine clearance. Prospective evaluation is required to further evaluate the validity of this clinical decision rule.

The importance of doing a walk around for a complete size-up of your structure.



A Side

I think most people would agree with a conventional wood framed (or type V) structure based on the A side view.



Here are a few clues that you would find during your walk around to give you a better understanding of the construction mix of this building.



This particular fire started near the A/D corner interior and extended into the mobile portion of the home and ran the entire length of the C side (the back half of the structure was the mobile home) and was well involved upon the first engines arrival. The majority of the flooring of the mobile was burned through or severely weakened. Other complicating issues present were a downed service drop, that was live briefly, on the A/B corner as well as the significant radiant heat, that made trying to get to the backside very difficult due to an adjoining properties fence.

Winter Health Kit (cont. from Pg 2)

with brain regions that detect sweetness, says study author Ian Paul, M.D. "So the taste of honey may calm the part of the brain that makes you cough." Plus, the viscosity of honey helps coat your throat. Swallow 2 teaspoons every 4 to 5 hours during the day and a half hour before you go to bed, recommends Dr. Paul.

GARLIC

FOR: Cold survival

WHEN: Before you're sick

There's nothing subtle about garlic, including its effect on viral invaders. In a new study in *Clinical Nutrition*, people who took a daily garlic supplement for 3 months experienced 21 percent fewer cold symptoms than those on a placebo. Credit garlic's ability to prime natural killer cells and T cell—both part of your immune system's first line of defense—to respond faster and with more force when viruses attack, says study author Susan Percival, Ph.D. You don't have to eat a clove of garlic. Just pop a supplement that contains 2.6 grams of garlic extract every day.

HOT TEA

FOR: Cold survival

WHEN: While you're sick

The Brits know what they're doing with their 4 p.m. ritual. In fact, a U.K. study found that cold sufferers who slowly sipped a hot beverage for 10 minutes saw drastic reductions in coughing, sore throat, runny nose, and sneezing. "Warm drinks soothe the mucous membranes in your nose, mouth, and

throat, reducing irritation," says Dr. Agus. Your tea should be hot, but not too hot—you don't want to cause inflammation. Add honey and lemon: The sweetness and acidity can stimulate salivation to clear your throat and sinuses, the British scientists say. (And know when to go with coffee or tea.)

WRITE A TO-DO LIST

FOR: Cold survival

WHEN: Before you're sick

Create some calm before the storm. Stress triggers production of the hormone Cortisol, elevating inflammation and priming you for more severe symptoms if you catch a cold, says Bruce Barrett, M.D., Ph.D., a professor of medicine at the University of Wisconsin at Madison. In a British study, the upper respiratory infections of people who stewed over stressful events were more severe than those of people who didn't dwell. Instead of fretting over your hectic holiday schedule, create daily to-do lists—a more emotionally neutral task.

SLEEP

FOR: Flu survival

WHEN: Before you're sick

Start a pillow fight with the flu. If you consistently log enough shut-eye, your flu shot may be more effective, says Aric Prather, Ph.D., who studies community health at the University of California. That's because sleep helps maintain levels of B cells and T cells, which trigger the immune response when you receive the vaccine. To squeeze in more z's, set up a humidifier in your bedroom. Moist air fights in-

flammation in your sinuses and can kill off airborne flu virus particles, a Harvard study found. Shoot for a humidity level of 40 to 60 percent.

ZINC LOZENGES

FOR: Cold survival

WHEN: While you're sick

Sync with zinc. Zinc lozenges may reduce the duration of the common cold, a new Canadian review concludes. As soon as your throat feels scratchy—often the first sign of a cold—start sucking on zinc acetate lozenges, such as Zicam (\$22 for 27 lozenges, drugstore.com). This is the form of the metal most effective at fighting colds, say researchers in Finland. Aim for 75 milligrams a day, but don't go overboard. Limit yourself to one lozenge every few hours for a few days. (Regular use for 6 weeks or longer could lead to nerve damage.)



CE Answer Sheet: Spinal Immobilization

Complete this answer sheet from the previous CE article and forward it to the Training Office for grading and credit. (1 CE hour Credit for successful completion)

- 1. Regularly
- 2. On calls is good enough.
- 3. True
 False
- 4. True
 False
- 5. True
 False
- 6. True
 False
- 7. True
 False
- 8. Yes
 No
- 9. True
 False
- 10. Yes
 No

Be Back Next Month!!!

Station: _____

Name: _____

Comments: _____

Have a Happy and Healthy New Years!



For Suggestions or Comments:

CAL FIRE / Butte County FD

176 Nelson Ave

Phone: 530-966-8682

Fax: 530-879-3433

E-mail: Mike.Waters@Fire.Ca.Gov

"Let No Man's Ghost Say His Training Let Him Down!" -Unknown Author