



# *CDF Weekly Safety Briefing*

September 29, 2003

## *Fire Safety Tip*

### **The Origin and Development of L.C.E.S.**

The development of L.C.E.S. is tied directly to the 10 Standard Firefighting Orders, the 18 Situations that Shout Watch Out, the Downhill Indirect Line Construction Guidelines, and the Common Denominators of Tragedy Fires. But it is L.C.E.S. which actually serves those other programs by providing an effective review, and a mental map of those established orders, situations, guidelines, and denominators.

The concept of L.C.E.S. was developed by Mr. Paul Gleason and occurred back on June 26, 1990 while Mr. Gleason served as the Superintendent on the Zigzag Hotshot Crew. On that June day, Superintendent Gleason and his crew were assigned to the “Dude Fire” on the Tonto National Forest (TNF). It was during the transition of the incident to a Federal Type I Incident Management Team that the fire made both a spectacular and tragic run entrapping the Perryville Type II Fire Crew who had been working on a nearby hillside. Six people lost their lives during that run while farther up that same hill was Superintendent Gleason’s crew along with several other crews and various overhead personnel who immediately sought refuge in a pre-designated Safety Zone. Such a horrific experience changed the firefighting habits of everyone involved and prompted Mr. Gleason to conceive and publish the L.C.E.S. system and Paul tells us that by diligently following the practices of Lookouts, Communications, Escape Routes, and Safety Zones, we are essentially accomplishing all of the 10 Standard Firefighting Orders and the 18 Situations that Shout Watch Out.

Later on, Mr. Ted Putnam, an ex Forest Service smokejumper and veteran of many fire entrapment investigations while assigned at the Missoula Technology Development Center followed up on the tragedy involving the Perryville Crew. Referring to his PhD in Psychology and his expertise in working with flame resistant materials Mr. Putnam wrote several briefings and conducted various aviation cockpit studies revealing that most individuals can normally manage only five or six critical elements at any one time. When the situation becomes intense, these same individuals are only able to focus on one or two elements. Many of the important concepts presented in his later published findings have been woven into L.C.E.S. and has since reduced the number of safety watch-outs to a more manageable concept in a time of crisis.

Like many firefighters, the author of L.C.E.S. was also thinking of the complications and inaccessible nature of the amassed Orders, Situations, Guidelines, and Denominators. Due to the deaths of friends and coworkers on “South Canyon” fire in 1994 Mr. Gleason conducted a self-evaluation and compelled himself to a deep commitment to L.C.E.S. and firefighter safety. In his mind, mere lip service to the rules was over.

## **The Origin and Development of L.C.E.S. (continued)**

On that day back in 1990 Mr. Gleason “walked the talk” and because of his deep commitment to fireline safety the fire service community owes him a great debt for his development of L.C.E.S. system. Who know how many lives it has and will continue to save.

For more information about L.C.E.S. and a self-paced training program please go to the following website: <http://www.nv.blm.gov/wgbcc/LCES/LCES.HTM>.

## *Health Safety Tip*

### **Overweight and Obesity**

61% of adults in the United States were overweight or obese in 1999. Approximately 300,000 deaths each year in the United States may be attributable to obesity. Overweight and obesity are associated with heart disease, certain types of cancer, type 2 diabetes, stroke, arthritis, breathing problems, and psychological disorders, such as depression. In 2000, the cost of obesity in the United States was more than \$117 billion.

Today there are nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980.

There are a number of factors that influence being overweight or obese:

- Behavior – eating too many calories while not getting enough physical activity
- Environment – home, work, school, or community can provide barriers to or opportunities for an active lifestyle.
- Genetics – heredity plays a large role in determining how susceptible people are to being overweight and obese. Genes also influence how the body burns calories or stores fat.

Behavioral and environmental factors are the main contributors to being overweight and obese, and provide the greatest opportunities for prevention and treatment.

Physical activity contributes to weight loss, especially when it is combined with calorie reduction. Regular physical activity is extremely helpful for prevention, and in maintaining weight loss. Many people live sedentary lives; in fact, 40% of adults in the United States do not participate in any leisure-time physical activity. Less than 1/3 of adults engage in the recommended amounts of physical activity (at least 30 minutes most days). You don't need special skills or training to be physically active; just walking by itself is a great way to stay fit.

## **Overweight and Obesity** (continued)

Remember that any type of physical activity should always be initiated slowly with the intensity increasing gradually. Work your way up to 30 minutes of brisk walking or other form of moderate activity five times a week. You should select activities you can enjoy and fit into your daily life. Ask for support from friends and family; likewise, support the people in your life who are trying to be physically active. Make fitness a priority, commit to it.

To lose weight, you must use more energy (calories) than you take in. Reducing your intake by 150 calories a day, along with adding moderate amounts of physical activity five or more times a week to your routine can be equivalent to 10 pounds in 6 months, or 20 pounds in a year.

Balance your food intake and your activity. A 12 oz can of soda equals 150 calories. One small chocolate chip cookie (50 calories) is equivalent to walking briskly for 10 minutes. The difference between a large gourmet chocolate chip cookie and a small cookie could be about 40 minutes of raking leaves (200 calories). One hour of walking at a moderate pace uses about the same energy that is in one jelly filled donut (300 calories). A fast food “meal” containing a double patty cheeseburger, extra large fries and a 24 oz soft drink, is equal to running 2 ½ hours (1500 calories). Look at what you are eating!

How much should you weigh and how many calories should you take in each day? This greatly depends on your age, height, and amount of physical activity. A good rule of thumb is- a person whose ideal weight is approximately 150 lbs. should have a caloric intake of 1500 calories per day. Depending upon their physical activity level this can increase accordingly.

If you are serious about losing weight consult with your health care provider about starting an exercise program and sit down with a dietician and find out exactly what it is you are eating and how you can change or find a good book on caloric intake and adjust your eating habits. Often just cutting back on your portions is a good start. Serving sizes should be small, and well balanced. (Even the salad bar can add up in calories, up to 3000, if piled on with all the options).

There are many programs out there that have been successful. “Weight Watchers” and those like it, are ones that will not only help you lose weight but educate you as well in changing your lifestyle and eating habits. Many hospitals offer free classes on sensible eating habits and weight loss. “Subway” type sandwiches can offer low fat alternatives to fast food eating.

You need to plan and get started, and often having a partner will keep you on track. Don’t give up. If you miss a day, keep going. Realize it won’t happen overnight, treat yourself occasionally, and you will soon realize how good it feels to be physically active and fit.

**To send Comments or suggestions for future topics please contact:**

Tom Drayer, Division Chief, EMT-P  
Training and Safety  
California Department of Forestry and Fire Protection  
California Southern Region  
Office: (909) 20-6106  
Cell: (909) 314-3228  
Fax: (909) 320-6395