



# THE SSE ELUCIDATOR

*"Elucidate: to give clarity through explanation and analysis."*

## 10 TIPS FOR AVOIDING THE HOLIDAY BLUES

There is a flip side to the much advertised holiday joy, optimism, hope, generosity, peace on earth and good will to all. For some there is a dark side present known as the holiday blues. It is widely publicized that cases of reported depression escalate during this period. The Holiday season records show that the suicide rate doubles at this time of the year. A number of factors can contribute to the "holiday blues," including stress, fatigue, troubled family relationships, loss of a loved one, lack of sunlight, images in the media, unrealistic expectations, and financial constraints. This year in particular, many people are experiencing financial hardships and are at risk for the holiday blues. These factors may lead to feelings of sadness, self criticism, self doubt, loneliness, stress, anxiety, pessimism, and even anger, all of which can have devastating effects on your health and safety. There may be changes in sleep patterns, a lack of energy, headaches, agitation, anxiety, diminished interest in favorite activities, or excessive drinking, eating, and feelings of guilt.

Emotional pain is part of being human and we want to be aware of and feel our emotions. Learn from them and let them go. Experts tell us that depression is often frozen anger or grief. You may want to be aware of the symptoms of "depression" and know when you need to get medical help. It is best to consult a doctor when the feelings of the "blues" linger on for more



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than a couple of weeks. Left untreated, depression can become a serious and life-threatening disorder.

Here are some coping strategies for dealing with the blues. Remember to make up your own list that you can have on hand and ready to refer to whenever you recognize the feelings of the "Blues" surfacing. Do something on your list and if it doesn't work try another on the list. If you get to the stage where nothing seems to be helping it's time to consider an assessment for depression.

1. Choose to surround yourself with supportive and positive people and limit as much as possible your time with negative family, friends or colleagues. If this is difficult, choose to change the subject to one that is positive. They will soon get the message or back off. Remember misery loves misery!
2. Give. Yes, go give your time and help at a charity or nursing home. It's amazing how much better you can feel when you give of yourself and help others

## 10 TIPS FOR AVOIDING THE HOLIDAY BLUES (CONT.)

who are less fortunate than yourself. This is also a wonderful way to rekindle the true spirit of Christmas with the act of selfless giving.

3. If feeling lonely, look at ways to make new friends – join a new club, organization, sports group or self help group or group of interest, eg. knitting, book reading, bicycling, or hiking. Do something you haven't done before. Extend yourself to make new friends with something that you have an interest in.

4. Set healthy limits when socializing or attending work or family functions. Make a deal with yourself, for example, to have one small slice of cake and one alcoholic drink and avoid the rounds of nibbles. Give yourself strategies you can put into place when out so you don't offend your host and don't overindulge so you feel fatigued and heavy.

5. Set realistic goals and expectations for the holidays. You don't have to say yes to every invitation or have all your friends over for dinners and parties. Set up a budget and plan ahead with a to do list leading up to the holidays so you won't be overwhelmed when they arrive. Think about and write a list of gifts that don't involve money such as time, support, and budding memories such as visiting a relative, sharing photos, reading an inspirational story with your family each night.

6. Learn how to meditate. It can be a good way to get in touch with feelings and a way to release stress in the body and mind. You can start now even by closing your eyes and deeply breathing for 5 –10 minutes each day and watching your thoughts and allowing them to drift off.

7. Find joys to uplift you. Write out a list of things that you remember to be pleasurable. For example, it could simply be making a hot chocolate and sipping it as you take time out and watch the birds in a tree for 5 minutes. It may be watching a funny movie, playing a piece of uplifting music, or reading a chapter from a favorite inspirational book.

8. Take up some form of exercise. Experts now tell us that some form of movement 30 minutes four to five times a week can be an effective anti-depressant. Try yoga, an exercise class at a gym, join a walking club or just commit to turn off the TV and go for a vigorous walk each night. Try different types of exercise until you find one you like then commit to it each week. Not only will you feel better emotionally but you will be physically healthier too.

9. Practice gratitude. Value your life, your experiences, and the people around you. When you walk remember all that you have to be grateful for and remember to be grateful for the time you have had with loved ones you may have lost this year.

10. Limit alcohol and junk food. The food and drink served during the Holiday season to bring joy can actually be doing just the opposite. Sugar, caffeine, and alcohol are the standards that most celebrations interweave the event around. This combination can be initially uplifting. However, the after effect can open the door to depression. The reason is they inhibit the production of serotonin in the body. Serotonin is the “happy hormone” the body produces to enhance mood. To manufacture serotonin the body uses a variety of B vitamins. Sugar, caffeine, and alcohol consumption is broken down by the body using the same vital vitamins. This causes a depletion of these crucial vitamins and significantly lowers the body's ability to create serotonin. Add the words, “I've had enough” to your vocabulary. Learn that when you say “just one more” in actuality means that you already have had more than enough.

Finally, don't end your holidays with a New Years toast to some unrealistic resolution. Instead, look within yourself and toast something positive about yourself.



## NEW METHOD FOR TRACING METAL POLLUTION



A new way of pinpointing where zinc pollution in the atmosphere comes from could improve pollution monitoring and regulation, says research out this week in the journal *Analytical Chemistry*.

Imperial College London researchers say their work is a major breakthrough as current methods for analyzing zinc pollution only measure pollution in the atmosphere; they do not trace it back to its source.

Researchers say their method will provide a new tool for policy makers and modelers. A better understanding of zinc pollution sources could inform and improve national and international pollution strategies.

At low levels, zinc is an essential mineral used by plants and animals. But at higher levels, zinc pollution is suspected of causing cardiovascular, reproductive, immune, and respiratory problems.

Researchers trialed their method on atmospheric samples collected in Sao Paulo, Brazil. They worked in conjunction with researchers from the University of Sao Paulo who wanted to find out where zinc pollution comes from.

The analysis of air samples suggested that a major source of zinc in the city's atmosphere comes from cars and not from manufacturers as previously thought.

Scientists traced zinc pollution to car exhaust fumes and metal friction when cars brake, releasing zinc into the atmosphere. The study's co-author, Dr Dominik Weiss, from Imperial's Department of Earth Science and Engineering, says: "We need to know where these sources of pollution are coming from because exposure to zinc pollution over a long pe-

riod of time is a significant concern for the health of residents in big cities such as Sao Paulo or London."

The new method analyzes zinc isotopes, which vary according to the pollution source. For instance, zinc isotopes in car exhaust are different from zinc isotopes coming out of industrial smoke stacks. The identity of these isotopes provides the clues to trace zinc pollution back to its source.

Dr Weiss says this technique for analyzing isotopes could also be applied to tracing the sources of other metals such as cadmium, copper, and thallium. He adds: "Trace metals have a nasty way of bio-accumulating. They build up through the food chain with toxic consequences. Our new method could help policy makers find some more accurate answers about the true sources of metal pollution."

### EPA'S UPCOMING EVENTS

*December*  
*Week 7-13*

National Hand Washing Awareness Week – Sponsored by the Henry the Hand Foundation to encourage everyone to remember the **4 Principles of Hand Awareness**: 1. Wash your hands when they are dirty and before eating 2. Do not cough into your hands 3. Do not sneeze into your hands 4. Above all, avoid the T-zone by not putting your fingers into your eyes, nose, or mouth. If You NEVER touch those mucous membranes with a dirty (contaminated) finger you will NOT be sick again from a respiratory or gastro-intestinal illness!! Additional information, flyers, and posters are available at [www.henrythehand.com](http://www.henrythehand.com).

## SAFE TOYS FOR CHRISTMAS



Safe toys are at the top of everyone's Christmas list this season. We all remember 2007 when toy recalls seemed to come faster than snowflakes in a blizzard.

One manufacturer alone recalled over a million toys because of concerns about lead paint. The scariest part of this was that so many of these tainted toys were targeted at toddlers and younger children, who always put things in their mouths. Of course you wouldn't knowingly let your child play with unsafe toys. However, it's what you don't know that can put your child in danger.

Toys can contain a variety of chemicals of concern including lead, cadmium, chlorine, arsenic, bromine, mercury, Bisphenol A, and phthalates. These chemicals are used in toy materials like plastics, paints, and fabrics to impart specific properties such as rigidity, durability, flexibility or flame resistance. When children put these products into their mouths, some of these chemicals may enter their bodies. Some of the substances, which are not always chemically bound to the products, may also be released directly onto skin, or into the air that children breathe. Because children's bodies are growing and developing, they are more vulnerable to the effects of toxic chemicals. Even small amounts of a chemical can impact a child's ability to reach his or her full potential. Children are exposed to toxic chemicals from many sources in addition to toys, and the combination of these many exposures may cause harm.

Lead, cadmium, chlorine, arsenic, bromine, and mercury as well as related or associated chemical compounds have been identified by many regulatory agencies as problematic chemicals or they are associated with problematic compounds. These chemicals are believed to be toxic, persistence, and have a tendency to accumulate in people and the environment. In addition, scientific evidence suggests that exposure to phthalates, a softening agent that helps make plastic toys made of PVC pliable, have been linked to reproductive problems in many animal tests and may

interfere with the sexual development of boys.

Heightened concerns about toys helped win approval of a "toxic toy" law in California, which last October became the first state to ban phthalates. Retailers are tightening standards nationwide to comply with the California law, which takes effect in January. Walmart and Toys "R" Us announced plans last month to dramatically cut the amount of lead in toys, from 600 parts per million in surface coatings to 90 parts per million. More toys will have independent safety testing, and retailers plan to virtually eliminate phthalates in children's toys by the end of the year. Walmart and Toys "R" Us are joining a growing list of dozens of companies including Target, Sears, Kmart, Microsoft, Johnson & Johnson, Nike, and Apple that are eliminating or reducing phthalates and PVC products and packaging. You can find a comprehensive list of companies at: [www.besafenet.com/pvc/companypolicies.htm](http://www.besafenet.com/pvc/companypolicies.htm). Those changes could prepare the retailers for new Federal standards as well. A Senate bill to reform the Consumer Product Safety Commission (CPSC), approved earlier this month, bans all but trace amounts of phthalates in children's toys. While these regulations are intended to become more stringent in the future, the U.S. does not currently regulate any other chemicals, with the exception of lead, in kids' products.

Millions of toys are out there, with hundreds of new ones hitting the stores each year, but how do we know which ones are toxic to our beloved little ones? Here are some general tips for buying safer toys and products for kids this Holiday season.

**Avoid toys that list vinyl or PVC as an ingredient (#3 plastic)** – Soft plastic toys like bath toys, squeeze toys, and dolls are commonly made of PVC vinyl. Phthalates are used in some but not all PVC formulations. Because there are no labeling requirements for phthalates specifically, it is best to avoid all toys made of vinyl or PVC. Some PVC toys may be labeled with a V or #3 inside the chasing arrows triangle usually located on the bottom of a product. Most won't be labeled at all. Generally, if a toy is a squishy plastic—like rubber duckies and baby dolls—or if it has highly flexible plastic as a component—like the

## SAFE TOYS FOR CHRISTMAS (CONT.)



clear pages in child "photo albums," the clear plastic purses that some girl's toys are sold in, or the plastic-like "fabric" used on some dolls—you should avoid it or call the manufacturer to ask if the product is made with PVC or phthalates. There is no comprehensive list at this point. One of the best resources currently available is [www.HealthyToys.org](http://www.HealthyToys.org) which has a searchable database of over 1,200 toys. If you're not sure if a toy contains vinyl or PVC try looking it up in the HealthyToys database at [www.healthytoys.org/product.using.php](http://www.healthytoys.org/product.using.php). If you see high levels of chlorine, it is likely that the product contains PVC. If the product you are curious about is not in the HealthyToys database, ask the manufacturer or consider an alternative product. When in doubt, smell it! Toxic softeners in plastics can give them that "new smell." Strong fragrances and perfumes can provoke allergies or asthma.

- ◆ Steer clear of vinyl lunch boxes; choose cloth lunch bags instead
- ◆ Choose uncoated cotton bibs instead of vinyl bibs, or choose bibs made of non-PVC plastic
- ◆ Avoid diaper covers, rain gear, and backpacks made of vinyl (PVC)
- ◆ Choose mattresses made of wool, cotton, or natural latex that don't have vinyl covers
- ◆ Choose wool changing pads or portable fabric changing pads that do not have vinyl linings
- ◆ For a guide to safer plastics, see: [www.iatp.org/foodandhealth/](http://www.iatp.org/foodandhealth/)

**When possible choose plastic-free toys** – The best guideline is to buy things made from natural materials. Purchase toys made of solid wood (either unfinished or with a non-toxic finish) and/or organic cotton, hemp or wool.

**When possible choose completely non-toxic toys** – While it is outstanding that so many major manufacturers and retailers are making a commitment to phase out phthalates, this is only one piece of the

solution. There are many small companies committed to selling completely non-toxic, natural toys. A simple search on-line will result in a large list of vendors to buy safe toys from.

**Avoid children's metal jewelry and toys with small pieces** – particularly magnetic pieces. For more information, see the CDC's website on lead in jewelry at [www.cdc.gov/nceh/lead/faq/jewelry.htm](http://www.cdc.gov/nceh/lead/faq/jewelry.htm).

**Check for toy recalls** – Many of the recent toy recalls involve toys manufactured only within a certain time frame, or produced at a particular factory. Manufacturers use product numbers to identify things like when and where a toy was manufactured. Before wrapping up a present for a child, check to make sure the toy hasn't been recalled by locating the product number on your child's toy and checking it against the recall notice published the Recall Finder, on the CPSC website, [www.cpsc.gov/cpscpub/prerel/prerel.html](http://www.cpsc.gov/cpscpub/prerel/prerel.html), or at the manufacturer's website. Usually, the product number is stamped in an inconspicuous place, like the underside of a toy. If you have trouble finding the product number, check with the manufacturer or the CPSC's website for information on where to find it.

To receive email recall alerts, sign-up with the CPSC at [www.cpsc.gov/cpsclist.aspx](http://www.cpsc.gov/cpsclist.aspx). If you discover your child has received a new toy that is on the recall list, you should take it away immediately and follow the recall instructions for returning it or getting reimbursed. In many cases, you can send the toy back to the manufacturer for a safer replacement toy or be compensated for it.

**Buy locally made toys** – Lead paint has been banned in the United States since 1978, so if the toys you're buying were handmade by craftspeople in your community using materials purchased in the United States, or if they're made by toy companies that produce everything they make in the United States, it stands to reason that they're lead-free.



## RETIRE YOUR OLD PLASTIC CHRISTMAS TREES

Plastic Christmas trees may appear to make environmental sense because they can be used for many years. And about 20 million households put up a tree that is 9 years old or older. But old Christmas trees, which are made of PVC, are a potential health threat to children.

PVC has been dubbed the most toxic plastic. While PVC may contain toxic phthalates as a plasticizer, PVC can also contain significant amounts of lead as a stabilizer. Foundation E.A.R.T.H. has discovered that, as these plastic trees age, they release lead dust, which collects on tree branches and the floor beneath the tree. Most of the plastic trees come from China and they exceed U.S. Consumer Product Safety Commission recommendations for lead levels in consumer products. Lead is an extremely toxic heavy metal capable of producing long-term behavioral problems and brain damage, even at low doses.

To be extra safe, don't let your children touch or handle a plastic tree or crawl underneath it. Don't keep presents underneath it either, as they will collect any lead dust that falls. Better yet, purchase a fresh tree this year—it's a renewable resource that can be recycled!

## TRACKING DOWN ENVIRONMENTAL FUGITIVES

A new Web tool is available to enlist the public and other law enforcement agencies in tracking down fugitives accused of violating environmental laws and evading arrest. The Web site includes photos of the accused, summaries of their alleged environmental violations, and information on each fugitive's last known whereabouts. The alleged violations include smuggling of ozone-depleting substances, illegally disposing of hazardous waste, discharging pollutants into the air and water, laundering money and making criminally false statements. Putting this information on the EPA's Web site will increase the number of 'eyes' looking for environmental fugitives. Two EPA fugitives were captured this year, and this Web site could help EPA find more fugitives in the future.

One of the 23 current fugitives is Mauro Valenzuela,

39, a former mechanic for Sabertech. In 1996, Valenzuela is alleged to have illegally transported waste oxygen generators onboard ValuJet flight 592 without proper markings and other safety measures. The jet crashed, killing all 110 passengers and crew onboard. Valenzuela failed to appear in federal court nine years ago.

The Web site also lists EPA's captured fugitives. Earlier this year, EPA found two men on the run. David Allen Phillips escaped prison four years ago after being convicted of Clean Water Act crimes in Montana. He fled to Mexico, was turned over to authorities by the Mexican government last March, and awaits further sentencing. David Ortiz fled after the appeal of his conviction for Clean Water Act crimes in 2004. He remained at large for almost four years until his capture last March in Colorado and is currently in prison.

Anyone who encounters a fugitive should notify EPA by submitting the "Report a Fugitive" form on the Web site. The information will be electronically sent to EPA's national criminal investigation office in Washington, D.C. The public may also choose to report the information to their local police or, if outside the United States, to the nearest U.S. Embassy. Some fugitives may be armed and dangerous, and EPA warns the public against trying to apprehend them.

Many of the alleged violators listed on the Web site have fled the country. EPA depends on cooperation with Interpol and other international law enforcement agencies to locate their whereabouts.

The FBI, U.S. Secret Service and the Bureau of Alcohol, Tobacco and Firearms also maintain web sites featuring fugitives from the law, but EPA is the first Federal law enforcement agency to feature an environmental crimes fugitive web site.

*Criminal charges are only allegations of misconduct. Individuals who have been charged with environmental crimes are presumed innocent.*

Information on EPA's Most Wanted Web site: <http://www.epa.gov/fugitives>.

For more information on EPA's Criminal Enforcement program: <http://www.epa.gov/compliance/criminal/index.html>.

## THE SSE ELUCIDATOR'S MONTHLY CARELESS CALAMITIES

This month, as we gear up for the Holiday season by limbering up the credit card and loosening the belt a notch or two, we proudly present the *Careless Calamities* version of a timeless favorite.

On the first day of Christmas, *Careless Calamities* gave to me, a Risk-O-Matic in a pear tree (and not just the basic model but the new, portable Risk-O-Matic 2, with the choice of warning-light colors and the ability to download different sirens).

On the second day of Christmas, *Careless Calamities* gave to me, an unwillingness to ride on the back of a motorcycle not wearing protective gear en route to my own motorcycle (where I have my own helmet).

On the third day of Christmas, *Careless Calamities* gave to me, the ability to distinguish between a metal ladder and a blue plastic lawn chair when I need to climb up a tree.

On the fourth day of Christmas, *Careless Calamities* gave to me, the knowledge that driving from California to Arizona to Texas to Indiana and back to Arizona and California during holiday leave is pushing it just a wee bit (which puts me ahead of the lance corporal who almost did it).

On the fifth day of Christmas, *Careless Calamities* gave to me, five extra minutes to read the instructions before any task and not say, "Heck, I never did it that way before and it always seemed OK."

On the sixth day of Christmas, *Careless Calamities* gave to me, the realization that goggles and a face-shield might be a bit uncomfortable, but an eye-ful of drain cleaner or deck stripper is much, much worse.

On the seventh day of Christmas, *Careless Calamities* gave to me, positive knowledge that no matter how fast I can run, I will never be able to outrun the fireball that blossoms when someone throws a match into a pile of brush they just doused with gasoline.

On the eighth day of Christmas, *Careless Calamities* gave to me, the realization that just because I can do something doesn't mean I should.

On the ninth day of Christmas, *Careless Calamities* gave to me, an allergy to balconies when I'm three sheets to the wind (or one sheet, for that matter).

On the tenth day of Christmas, *Careless Calamities* gave to me, the recognition that training is good and test-riding is bad when I'm considering the acquisition of an unfamiliar vehicle.

On the eleventh day of Christmas, *Careless Calamities* gave to me, the understanding that a highway speed limit isn't a baseline from which to try to calculate how many extra mph a state trooper might knock off your ticket if he's in a good mood, but rather a ceiling from which to slow down when it gets rainy, dark, or foggy.

On the twelfth day of Christmas, *Careless Calamities* gave to me, buddies who understand their job is to be the voice of reason, not a cheerleading squad for stupidity.

May you all continue to receive good things during this season and the coming year. An excellent gift is a personal mishap rate of zero, and you are the major factor in whether you receive it or not. Happy Holidays!



*U.S. Army Medical Research and Materiel Command  
Office of Surety, Safety and Environment  
Wishes Each of You a Safe and  
Happy Holiday Season!*

**THE ELUCIDATOR**

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*Visit us at:*

<http://mrmc-www.army.mil>

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***Reminder***

*For all accidents, no matter how minor,  
specific forms documenting the incident must be submitted to your Safety Office.*

*Military: DA Form 285-AB-4*

*Civilian: DOL Claims Forms CA-1 or CA-2*

*All employees requiring medical attention must visit your local Occupation Health Clinic as soon as possible post mishap.*