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Final Reports: Cargo door opened in flight

Cessna CitationJet 525, Van Nuys, Calif., Jan. 12, 2007–The NTSB determined that the crash of the Sunquest Executive Air Charter CitationJet was due to “the pilot’s **failure to maintain an adequate airspeed during the initial climb**, resulting in an inadvertent stall/spin.” **Contributing to the accident** were the second pilot’s **inadequate preflight**, failure to properly secure the front baggage door and the front left baggage door’s opening in flight. Both pilots were killed.



Line personnel said that while the jet was being fueled, the second pilot loaded several bags in the left front baggage compartment, then pulled the door down **but did not lock or latch it**. On takeoff, the door was closed at midfield but near the end of the runway it was seen open and “standing straight up.” The airplane turned slightly left and leveled off, flying slowly.

It started to descend and the wings rocked slightly before it stalled, turned to the right and crashed into the ground.

Pilots Furious Over TSA-Damaged Airplanes

Fourteen American Eagle aircraft were damaged overnight on Monday at Chicago's O'Hare International Airport when a TSA inspector used instrument probes **as handholds** to test the security of the aircraft from tampering, ABC News reported.



Over 40 flights were delayed on Tuesday while mechanics checked the airplanes. "Our inspector was following routine procedure for securing the aircraft that were on the tarmac," TSA official Eliot Montenegro told ABC. However, "There is a sign that clearly says don't step," Mary Frances Fagan, a spokeswoman for American Airlines, which operates American Eagle, told the Chicago Tribune. One pilot who posted on an Internet forum wrote, "The brilliant [TSA] employees used an instrument located just below the cockpit window that is critical to the operation of the onboard computers. They decided this instrument, the TAT probe, would be adequate to use as a ladder."

TSA workers will be **retrained** to ensure that the problem doesn't happen again, Montenegro said.

Crash of Spanair MD82 on 20 August 2008

The aircraft crashed shortly after takeoff on a scheduled domestic flight from Madrid to Las Palmas in the Canary Islands. Early reports indicated that the left engine experienced a major malfunction during the takeoff. The aircraft was able to get airborne, but the crew set the aircraft down in an area to the right of the departure runway. The aircraft broke up and there was a severe post-crash fire. There were 162 passengers and 10 crew members on board, and 153 of the 172 occupants were killed. Among the passengers were 20 children and two infants. Both infants reportedly survived. Many of the 19 survivors suffered burns, some of them serious.



This was also a code share flight with Lufthansa, and that airline reported that seven of their passengers had transferred to the Spanair flight from a previous Lufthansa flight. , and that airline reported that seven of their passengers were checked in for the flight.

For additional information on this crash, including links to related audio and video podcasts and updates on the investigation, visit <http://spanair.airsafe.org>.

You can also use the links below for the podcast:

Audio: [MP3](#) Video: [WMV](#) | [iPod/MP4](#) | [YouTube](#) | [Google Video](#)



The transcript of this podcast is available at <http://www.airsafe.com/podcasts/show62.htm>

Safety concerns about European airlines - survey says aircraft maintenance is lax news

It may now be the turn of Europe to **get tough with aviation safety regulators** and inspectors, after revelations that they may not be taking their responsibilities quite as seriously as is expected of them. According to Aircraft Engineers International (AEI), a **global body of 45,000 aviation maintenance engineers**, pilots in European airlines often fail to report faults when they find them.

A survey of aircraft maintenance engineers, who check flights to and from the UK, has revealed that airlines across Europe are **flying planes with known defects**, as pilots often fail to report faults when they find them. The AEI asked its members to carry out voluntary inspections of airliner logbooks that contain all information about a plane's faults and when they were reported.

Many pilots only reported faults such as brake fluid leaks and loss of cabin pressure only after completing their homebound flights, or after the day's flights, and not when they found them. The delay allowed airlines to remedy faults at their convenience saving them in costs.

Around 80 to 90 per cent of the faults were reported after pilot had made a homebound flight or after the end of the day's flying schedule.

These revelations come soon after the US Congress enacted changes in laws that now prevent retiring aviation safety officials to maintain **a cooling off period** of two years before seeking re-employment with airlines. It acted in response to persistent complaints that regulatory officials and airlines were maintaining a "cozy " relationship and overlooking factors that could affect the safety of air passengers.

One engineer examined 40 logbooks involving over 3,000 flights, and found that **90 per cent** of defects were reported after the homebound flight or at the end of the day.

The findings sparked off a flurry of claims and counter-claims.

AEI Secretary General Fred Bruggeman said: "We are positive that if regulators examined logbooks in the way we have, they will discover exactly the same pattern of late reporting. Their shocking lack of response makes it clear to us that they do not want to open Pandora's Box. We fear regulators had become too cozy with the aviation industry and are not taking our safety concerns seriously enough."



The UK's aviation regulator, the Civil Aviation Authority (CAA), responded by saying that it had carried out inspections of logbooks and was satisfied with its safety measures.

CAA Spokesperson Richard Taylor said: "The AEI have been making these claims for some time, but they have so far failed to provide us with specific examples. We have carried out our own checks and have found no discrepancies. If they do have any documentary evidence that anyone is failing to report faults, they have a duty to pass on this information to us."

But Robert Alway, head of Alea, which represents **2,000 maintenance engineers** in the United Kingdom, said that his members had come under pressure from employers for revealing fault data. He added, "The CAA and other European regulators must have a look for this irregular reporting pattern themselves. If they do, we are in no doubt they will find the same irregular reporting pattern."

Airlines responded to the charges saying they had nothing to hide.

Meeting the Global Demand for Technicians

The problem of **shortfall of technical workers** is just as acute in Europe as in the United States. "We have turned to the motor industry before now and offered potential trainees high quality jobs with better money than they can earn, but **they have rejected us and the aviation industry**," says Ray Flower, Technical College manager at KLM UK Engineering, suggesting **the industry has an image problem**.



Martin Collins, engineering training manager at Monarch Aircraft Engineering UK, believes also: "It has a lot to do with modern society as youngsters today are encouraged to stay in school for much longer now and engineering apprenticeships are not seen as most attractive careers."

Stefan Wiegenman, general manager Sogerma Training at Bordeaux, France agrees: "This is the change in aviation legislation, where training can take much longer now because of the qualifications required for different licenses."

Much work is being done by the industry at large to deal with the problem. As a case in point, KLM UK Engineering Technical College is **graduating 120 maintenance trainees a year**, and in partnership with London's Kingston University conducts a Foundation Degree course in aircraft engineering to JAR 66 B1 standard. This is a two-year course, of 2,400 hours, and since 2001, when the program was launched, has graduated 400 students.

KLM Engineering is a component part of the Air France-KLM Engineering group and operates under the jurisdiction of KLM at Schiphol, from where students are regularly sent to Norwich, England. The College is also fully approved as a Part 147 Examination Center.

"We prefer to train people who **can work on the shop floor** and work under fully qualified engineers," says Martin Collins, the Monarch philosophy being that once trained, mechanics will hopefully stay with the company that employs them. This has been Monarch's own experience, for adult trainees have been trained to fully qualified standard over a two-year period and stayed with the company thereafter and are still there today. Monarch Aircraft Engineering is unique in the UK in that it was established first as an engineering services provider in 1966 and created the airline operator Monarch Airlines one year later, now one of the countries biggest.

"New and more advanced aircraft coming along, such as the A350 and Boeing 787 (of which Monarch Airlines has ordered six) may require less maintenance and ultimately fewer engineers, but in the short term the evidence is that the world will still be using a lot of aircraft which require maintenance in the traditional manner," says Collins.

The search is still on for tomorrow's technicians and may be partly alleviated by new technology, in the view of Stefan Wiegenman. "I think the problem will be resolved because everyone is putting effort into finding the right people. We have, for example, invested substantially in a new training system which reduces the time required in type training and also reduces the time required in training on the actual aircraft, which can be valuable, for working on aircraft always raises the sensitive issues of **safety** and security," says Wiegenman. This is the **virtual reality and environment system** created by Airbus as the AACT, or Airbus Active learning and Competence-focused Training concept. "This is much better for students because they are familiar with the aircraft even before they see it, and from the virtually real environment created can move towards a task and work on it immediately," he continues. As with Sabena technics, Sogerma is now a part of the French TAT group, and whose name remains, for the time being, Sogerma Services Training. The company has two training schools, one at Bordeaux and the other in Brussels, and is currently training to fully qualified standard 1,200 technicians annually.

Lufthansa Technik **made provision** for a likely shortage of engineers several years ago and maintains it now has no problem. "We recognized there could be a shortage around the world in a few years' time so we looked to the future," Christopher Meyerrose, head of technical training at Lufthansa Technik, Hamburg says. "The capabilities of Lufthansa Technik are quite considerable and we didn't want to waste this capability. We knew that **a shortage of qualified personnel would jeopardize the business** and so we made a business plan. Over the period 2002-2004 we saw other companies cutting the number of their trainees, but we didn't.

We also worked with the various employment agencies in Germany to offer training and the placement of interested candidates in a five-year window, because **it takes five years to train a fully qualified engineer**," he continues. "We are well-placed while continuing to look ahead."

Lufthansa Technik is currently training **no less than 16,000 engineers a year**. The company has 14 training schools worldwide, four of which are in Germany with others in countries including Singapore, the Philippines, Taiwan, etc. Trainees come from 40 different countries, with basic training, **training in line maintenance**, type training and to fully qualified engineer standard given as required. Virtual reality training is increasingly used. "This optimizes the training and can make understanding better rather than making training easier," says Meyerrose. "New technology is taking many forms, and in the Airbus A380, for example, you can say that **there is a maintenance engineer in the cockpit once again**." (Lufthansa airlines is scheduled to receive the first of a fleet of 15 A380s in August 2009, training of engineers on which type will commence in October 2008). Overall, Lufthansa Technik invests some €40 million (**\$63 million**) annually in training.

Aircraft Life Limits are in Our Future

The FAA plans to issue a new rule that would require airframe manufacturers to establish **a life-limit for each airframe**, based on the "limit of validity" of the engineering data that supports the **original maintenance program**. A purpose of this exercise is to prevent widespread fatigue damage in aging aircraft, and airframe manufacturers will be required to **identify maintenance actions** necessary to prevent widespread fatigue damage before the airplane reaches its life-limit.



This rulemaking would require operators of any affected airplane to incorporate the **life-limit into the airworthiness limitations section** of the aircraft's instructions for continued airworthiness. In order to operate an affected airplane beyond the life-limit, the operator would need to develop an FAA-approved maintenance program designed to prevent widespread fatigue damage.

[New Report Examines the Fundamentals of Safety Management Systems in Aviation](#)

Research and Markets has announced the addition of the **"Safety Management Systems in Aviation"** report to their offering.

(http://www.researchandmarkets.com/research/5f3a0b/safety_management)



Although aviation is among the safest modes of transportation in the world today, accidents still happen. In order to further reduce accidents and improve safety, **proactive approaches** must be adopted by the aviation community. The International Civil Aviation Organization (ICAO) has mandated that all of its member states implement **Safety Management System (SMS)** programs in their aviation industries. While some countries (Australia, Canada, members of the European Union, New Zealand) have been engaged in SMS for a few years, it's just now emerging in the United States, and is non-existent in most other countries.



This timely and **unique book** covers the essential points of SMS. The knowledgeable authors go beyond merely defining it; they discuss the quality management underpinnings of SMS, **the four pillars**, risk management, reliability engineering, SMS implementation, and the scientific rigor that must be designed into proactive safety.

This comprehensive work is designed as a textbook for the student of aviation safety, and is an **invaluable reference tool for the SMS practitioner** in any segment of aviation. The authors introduce a hypothetical airline-oriented safety scenario at the beginning of the book and conclude it at the end, engaging the reader and adding interest to the text. To enhance the practical application of the material, the book also features numerous **SMS in Practice** commentaries by some of the most respected names in aviation safety.

Reviews of Safety Management Systems in Aviation: 'Managing safety in aviation has been elevated to the next level with the current emphasis on Safety Management Systems. Safety Management Systems in Aviation describes SMS as **a proactive, preventive risk management process** that includes hazard identification and mitigation, tools for gathering data, and methods of analysis. This book contributes significantly to the literature in the field of aviation safety and will be an **invaluable source** for all aviation safety professionals.'

Gary J. Northam, Embry-Riddle Aeronautical University, USA 'Finally, the aviation industry has recognized that effective safety management systems are necessary in today's complex operating environments. Fortunately, a fascinating, yet comprehensive guide to the organization, management, and successful implementation of these processes is now available. In [Safety Management Systems in Aviation](#), Stolzer, Halford and [Goglia](#) have produced the definitive SMS manual; richly detailed and loaded with relevant, real-world examples. This book should be required reading for every aviation safety student and professional!'

[Why You Should Never Fly In An Iranian Aircraft](#)

On July 7th, an Iranian F-5 fighter crashed during a training exercise. One could understand that, as the F5 was an American built jet fighter Iran bought over three decades ago. Spare parts have been hard to come by, but Iran has managed, sort of.



The big problem is not the loss of three decade old U.S. jet fighters, but the many [other older transports and airlines](#) that have been going down.

In the last six years, there have been at least a dozen crashes, leaving about [700 passengers and crew dead](#). Most of the downed aircraft were not American. Many of the lost aircraft were Russian, a nation that has no problems selling Iran aircraft parts. So what's the problem? Simple. [Iranian aircraft maintenance is lacking](#).

That's because a lousy economy and a really bothersome lifestyle police have caused many technically skilled people to flee the country. Plenty of competent Iranian [aircraft mechanics](#) and engineers in southern California, not so many in Iran.

To make matters worse, anything involving aviation in Iran, gets a lot of attention from the secret police. Anyone of questionable loyalty to the clerical theocracy (that runs the country) is not suitable for key jobs (be they technical or managerial.) As a result, many organizations in Iran, especially government controlled ones, [are poorly run](#). That can be fatal for passengers in Iranian aircraft. [There are plenty of dead bodies and aircraft wreckage to prove it](#). It also says a lot about the readiness and capabilities of the ships and aircraft of the Iranian armed forces.

Midnight Shift Nugget

Managing 24/7: The 9 Switches of Alertness



Right now, take a moment and estimate how alert you are on a scale of 1 to 10. Now, go a step further and try to pinpoint what **factors** are influencing your alertness levels. One way of looking at these **factors** is to think of them as “switches” that can be on or off at any given time. Here are **9 switches** – recognizing them can help you stay alert on the job.

1 – Sense of danger, interest or opportunity. Nothing pulls us faster from a drowsy state than the imminent threat of danger, or just surviving a near miss. Although less extreme than the response to danger, a stimulating task or opportunity triggers a similar response. The flip-side is that alertness fades if what you’re doing is **monotonous**. An endless stretch of freeway or a quiet night in a plant where everything is running smoothly can prompt drowsiness.

2 – Muscular Activity. Physical activities, such as walking or stretching, also trigger the **sympathetic nervous system** and help keep you alert. However, many jobs require us to be sedentary. Extended periods without much movement, such as sitting in a chair or car, make it difficult to stay awake.



3 – Environmental light. Bright light tends to increase alertness, particularly during the **over-night hours**. Whether you’re at home or on the job, dim light or darkness set the stage for falling asleep.

4 – Time of day on the circadian clock. Circadian rhythms – daily ups and downs in body temperature, blood pressure, hormone levels and other physiological traits – have a major effect on alertness. We generally experience **peak levels of alertness** in the morning and early evening. It’s much harder to stay alert in the early afternoon and during the overnight hours.

5 – Sleep bank balance. How long you’ve been awake and how much sleep you’ve had in recent days affects your alertness level. If you only sleep four or five hours a day for several days in a row, you build up a “**sleep debt**” that leads to reduced alertness. A long spell of sleep acts as a “deposit” that helps offset your sleep debt.

6 – Sound. As you know, sound can be both a tool for promoting sleep and alertness. Be conscious of the sound around you and adjust it to fit what you need.

7 – Ingested nutrients and chemicals. Caffeine and amphetamines **temporarily** increase alertness. Others, such as sleeping pills, antihistamines, melatonin and certain foods, may induce sleep. Of course, some of these substances have **serious drawbacks** because of their negative effect on overall health and potential for abuse or addiction.

8 – Temperature and humidity. Cool, dry air, especially on your face, makes it easier to stay alert, while heat and humidity make you drowsy. Similarly, a cold shower is **invigorating**, while a warm bath prepares you for sleep.

9 – Aroma. Some researchers believe that aromas like peppermint, pine and citrus can make people more alert. Lavender, meanwhile, seems to have a sedative effect.

Shorter REM Sleep Linked to Being Overweight in Children, Adolescents

Reduced REM sleep might put children and adolescents **at risk for becoming overweight**, according to a study in the *Archives of General Psychiatry*. Researchers studied 335 children and adolescents, ages 7 to 17, over the course of three consecutive nights, conducting standard polysomnography and weight and height assessments. Sleep involves transitions between **three different states**: wakefulness, rapid eye movement (REM) sleep, which is associated with dreaming, and non-rapid eye movement (NREM) sleep.



The overweight children in the study slept almost 22 minutes less than the normal-weight children and had shorter REM sleep and lower REM activity and density. After adjusting the data for different factors, the study found losing an hour of total sleep **almost doubled the odds** of becoming overweight. The odds were almost tripled for losing one hour of REM sleep. The researchers concluded that more studies need to be conducted to determine the link between shorter REM sleep and endocrine and metabolic changes that may lead to obesity.

- Read the [abstract](#).
- Learn more about how [REM](#) is important for maintaining natural sleep architecture.



BRAIN GAMES



Flex Your Memory

<http://www.gamesforthebrain.com/game/dragger/>



Dennis Quaid, wife view hospital medication system

Dennis Quaid, wife tour Dallas hospital, learn about their system to **avoid medical errors**

Actor Dennis Quaid, whose twins were given an overdose of a blood thinner as newborns at a California hospital, toured a Dallas hospital on Tuesday to learn about **a system** to prevent such errors.

Officials at Children's Medical Center Dallas showed Quaid and his wife, Kimberly, the hospital's system of **bar-coding medications** to allow the drugs to be tracked electronically from the point of dispensing until being administered to the patient.



"This system here at Children's Medical Center, I'm really amazed ... it's beyond cutting edge," Quaid said at a news conference after the tour.

"I was so encouraged here to see this being implemented."

He compared the barcoding system to alarms in place in aviation.

"Human error is going to happen," he said. "I make mistakes, only I get take two."

Quaid's twins, born Nov. 8 to a surrogate mother, recovered from an overdose of heparin.

He said the twins got staff infections shortly after their birth and were taken to Cedars-Sinai Medical Center in Los Angeles, where they suffered the overdose Nov. 18.



They had been receiving intravenous medications, and the heparin was used to flush the catheters to prevent clotting. But his children were **mistakenly** administered the wrong version of the blood thinner and got **1,000 times** the correct dose.

Two concentrations of the drug **were bottled with similar labels** and size. Quaid has said that when rotated slightly, the light blue **10-unit bottle** and the **10,000-unit dark blue bottle** are hard to tell apart.

Quaid called the incident "a nightmare to live through."

"At the beginning there was a lot of anger, shock and fear," he said.

But he said that his anger has turned to a desire to **raise awareness about medical errors in medications** and he's even formed **The Quaid Foundation** to help accomplish that.

"We certainly don't blame the nurse, **but everybody makes mistakes**," he said. **"It was just a breakdown."**

He said his twins _ Thomas Boone and Zoe Grace _ are now eight months old and are doing "fantastic."

In December, Quaid and his wife sued Baxter Healthcare Corp., based in Deerfield, Ill., saying the drug maker was negligent in packaging different doses of the product **in similar vials with blue backgrounds**.

A January report from the California Department of Public Health said that Cedars-Sinai **did not adequately educate staff about safe use of heparin and that nurses sometimes failed to adequately read labels on vials of the drug**.

This month in Corpus Christi, 14 babies got overdoses of heparin at Christus Spohn Hospital South after pharmacy workers made what the hospital called a **"mixing error."**

Two of the babies involved _ twins who were born one month premature _ died, although the hospital said its physicians have found no direct links to the overdose. Autopsies are being performed.

FAST TRACK TO FAILURE

10 Ways to Kill Your Career

I usually like to talk about success. But today, I want to discuss failure. All of us experience failure at some point in our career. But for some, failure is merely a temporary setback; for others it's a recurring pattern and an ultimate career fate. It's this career failure that you can and must avoid.

Although luck plays a role, the wrong workplace behavior is often a leading factor in career failure. Here are 10 behavior patterns that can cause your career to fail.



1. Not Keeping Your Skill Set Current

The business landscape is ever-changing and there is more demand for jobs than supply. Not staying on par with colleagues and those vying for your job is a death knell.

2. Not Delivering Results

It's all about accountability. Those who harbor a sense of entitlement for simply having put forth effort regardless of results fall by the wayside.

3. Not Communicating

Communicating via email doesn't replace the need to actually talk to people. If anything, automation and the internet have made personal communication even more important.

4. Thinking You're Irreplaceable

There is no room for "divas" in the workplace. As soon as you convince yourself that you - and only you - can do the job "right," your star will surely fall.

5. Thinking You Know All the Answers

Socrates said the truly wise man is the one who recognizes his own ignorance and strives to correct it. Socrates's contempt for the know-it-all would have made him one excellent career counselor.

6. Surrounding Yourself with Brown Nosers

Successful people allow their ideas and schemes to be challenged and questioned.

7. Not Giving Credit to Others

As a manager, it's essential to give credit where credit is due. Those who take credit they don't deserve inevitably reap what they sow.

8. Failing to Self-Promote

Don't confuse crediting others with failing to get maximum mileage from your own achievements. I'm not talking about bragging. I simply mean making it a point of letting colleagues in your industry know about your own successes.

9. Not Seeking Advice

Those who fail to recognize their shortcomings are destined for the unemployment line. You can't do it all yourself. When you hit a roadblock, seek the advice and perspective of a respected friend, colleague or even a business coach.

10. Having No Life Plan

Last but certainly not least, successful people have a clear life plan. Many of them actually write their plan down. And they treat it as a living document that they revise in accordance with the lessons of experience.

Conclusion

While we have a right to expect equal opportunity, the fact of the matter is that all men-and women-are not created equal. Some of us are born smarter, more charismatic, energetic, etc. than others. But success is determined not just by the qualities with which nature endowed us but by how we behave in the workplace. Recognizing and correcting the above behavior patterns can thus go a long way toward helping you reach your career goals, whether in safety or any other endeavor.

SEASONAL SAFETY

Cure for the Summertime Blues

Here it is August and you're relaxing on the deck at the lake cottage, drinking something cool and reading a bestseller.



Just kidding. You're actually still at the plant, putting in extra shifts in the sweltering heat while other people are enjoying vacations. And you're seeing **another summer slipping by** without doing the things you daydream about doing.

An hour a day keeps the blues away

If you're like many individuals, you keep putting your **personal life on hold** while you keep up with the demands of your job.

That strategy may seem necessary and it may seem noble. But in fact **it can prove harmful to yourself** and even to your employer.

The most effective individuals are the ones who have a life outside of the job. That's because they're more likely to have **a balanced perspective**. They're better able to recognize what is a really big deal — and what isn't. They're also in a better position to maintain good physical health, pursuing good nutrition, plenty of exercise and enough sleep and rest in the time they take away from the job.

Free time also contributes to better mental health too, giving a person the chance to calm down, face fears realistically, get over anger and hurt feelings, and prepare to start fresh on the next shift.

Your employer gets his money's worth from you when a change of scenery inspires creative and critical thinking. Increasingly, supervisors and managers are expected to find solutions to problems and develop improvements in their work areas. If you're just doing the same work over and over, you may not be doing your job. **Sometimes you have to get away** from your routine tasks to see how you can do things better.

If you're not able to take off to your favorite vacation destination this year, you might be able to take a small summer vacation each day or each weekend.

Consider these ways to enjoy the summer weather while you are working:

- Walk or bicycle to work.
- Eat lunch outdoors.
- If you live near an ocean or lake, drive there on your way home from work for a swim. An hour a day all summer can be more satisfying than a stretch of lazy days at the beach.
- Take in neighborhood get-togethers and community festivals.
- Find a way to get outside and enjoy the good weather every day or night. Turn off the television and turn to some summer fun each free evening.

When you look forward to summer, what do you think of? Whatever it is, **build a little of it into each of your busy work days**. You, and the people who depend on you, will benefit.

Control Stress To Work Safely!

- **Stress** - everyone has it. It is a natural part of life, but too much stress can cause health problems and can affect your ability to work safely.

Stress occurs when we are faced with situations that cause nervousness or even excitement.

These situations can range from **increased production demands** at work to heavy traffic during your commute. Stress can be caused by unwelcome events - such as a large unexpected bill, or even by happy events - such as a promotion.

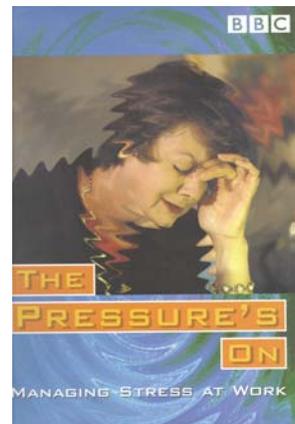
And stress isn't necessarily a bad thing, either. Most of us work better under pressure, and we learn better too.

Physical symptoms of excessive stress can include headaches, digestive upsets, muscle tension, sweating, shaking, heart irregularities, fatigue and other discomforts.

Emotional and mental symptoms can include nervousness, depression, confusion, inability to concentrate, mood swings and anger.

Certain behaviors may also be symptoms of too much stress - **excessive eating, drinking, smoking or drug use**. Recklessness in driving and other activities may also be a sign of stress.

All of us have experienced excessive stress and at least some of these symptoms at various times in our lives.



Long-term stress has been linked to ailments such as [heart disease](#), [cancer](#) and [ulcers](#). In fact, research has indicated that the majority of human diseases may be related to stress.

[Since stress can't be avoided](#), it is important to know how to manage it to maintain health and safety.

There are a number of different ways to reduce stress and to lessen the effect it has on us. [Here are some tips:](#)

- [Learn to manage your time better](#) to avoid last-minute deadline pressures or work overload. Learn to delegate some responsibilities.
- [Tackle first things first](#). Learn to complete your work in order of priority - doing the most important task first and saving the least important for last.
- [Talk things over with somebody you trust](#). This helps you by letting off steam, and you may come up with some solutions.
- [Learn to focus on solutions rather than problems](#). Instead of just complaining about what is wrong, try to find ways to fix it.
- [Learn some specific stress reduction skills](#). Many people find relief from stress by practicing techniques such as deep breathing, progressive relaxation or even meditation. Instruction in these methods is available from many sources such as tapes, books and community programs.
- [Get regular exercise](#). It will help you fight stress in two ways. First, exercise is relaxing and it gets your mind off your worries. Second, being physically fit can help you to handle stressful events better.
- [Eat regular balanced meals](#). You'll feel better and you'll improve your health. Don't overdo the caffeine because it can increase nervousness. Caffeine is found in coffee, tea, many soft drinks and chocolate. Take it easy on sugar, as well as alcohol and other drugs.
- [Get enough sleep](#), and take time to relax each day.
- [Develop some interests outside of work](#). Spend some time on a recreational activity each day - even if you have only 15 minutes to spare.
- [Maintain your sense of humor](#). Today's crisis often becomes tomorrow's funny story - so why not laugh about it today?

- If possible, arrange your work station to reduce stress. Comfortable seating, good lighting, fresh air and a comfortable temperature all make it easier to fight stress.

What does all this have to do with safety? It is important to reduce stress so that you can concentrate on doing your job well and safely. Accidents occur when people are distracted by stress.

A MESSY WORKPLACE IS NEVER SAFE

As this safety talk states, not all unsafe workplaces are messy, but no safe workplaces are. If you look around your workplace and see spills, items stored in the wrong areas and other **incidents-in-waiting**, then it may be time to gather your workers together for this safety talk.

Does your workplace deserve a good housekeeping seal of safety approval? Or are you and your co-workers doing little to clean up clutter and keep all necessary items in their proper place?



Whether it's an office, warehouse, workshop or drilling site, there are serious reasons for not trying to function in a messy work environment.

Here are some examples:

- Injury or death resulting from a trip or fall
- Injury or death after being struck by an out-of-place object
- Injury or death in a fire caused by improper storage or disposal of combustible materials
- Reduced productivity because of time spent getting around or over someone else's clutter and looking for proper tools and materials
- Lack of future work due to a reputation for poor quality and practices

It is not a guarantee that all clean workplaces are safe, but it is safe to say **no messy workplaces are safe**. Good housekeeping doesn't just happen. **It requires effort and teamwork**. Standards need to be set and followed. Employees should be involved in determining the standards for a particular location.

Sometimes housekeeping practices are established after a brush with disaster. Several years ago, for instance, fire started in a garbage can located in the welding shop of an offshore rig. The can was located beneath a set of cutting hoses. The fire burned through the hoses and ignited the acetylene inside.

Fortunately, the acetylene tank regulator was shut off, and this kept the fire from building to a substantial size, although it created a lot of smoke.

After investigating the incident the contractor instituted a policy that no trash cans were allowed in the welding shop. With a fire watch usually present in the shop, and with the amount of grinding, cutting and welding done there, the contractor was concerned that a trash fire might go unnoticed until it was out of control.

He recommended that trash cans be kept behind a door, barrier or otherwise out of reach of grinder spray, cutting torch or welding machine slag. Cans or barrels for scrap metal are allowed in the welding shop but must be labeled “Not A Trash Can” or “Metal Items Only.”

Checklists are a big help in measuring how well housekeeping standards are being met.

Good housekeeping can be a real morale booster. It should be encouraged as a way of life – not just a special activity when visitors are coming.

Here are some recommended housekeeping practices:

- Keep work areas clean, free of clutter and arranged properly.
- Keep aisles, exits and entrances free of obstructions.
- Keep floors clean, dry and in good condition.
- Vacuum or sweep dusty areas frequently.
- Store all work materials in approved, clearly-labeled containers in designated storage areas only.
- Use proper waste containers.
- Keep sprinklers, fire alarms and fire extinguishers clear.
- Clean up spills and leaks of any type quickly and properly.
- Clean and store tools and equipment properly.
- Fix or report broken or damaged tools and equipment.
- Keep lighting sources clean and clear.
- Follow maintenance requirements.

DO YOU KNOW...

What hazards exist when your workplace is cluttered?

Who is responsible for cleaning up?

Where to find a checklist that can help make your housekeeping more efficient?

PICTURE THIS!

Yep, this isn't a storage shed; it's somebody's workspace. And what a ripe old bunch of safety hazards we have here. Imagine that a fire broke out and you had to evacuate a space as cluttered as this. Would you like to bet on your chances of making it out alive, without tripping? Heck, would you bet on making a trip from this space to the washroom without tripping?

