



Aviation Human Factors Industry News

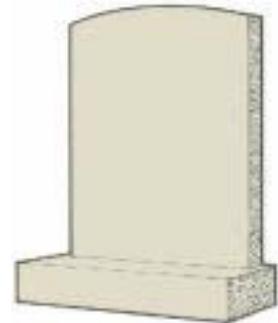
April 19, 2007

Vol. III, Issue 12

Death On The Ramp

An aircraft tug near gate A-60 at Detroit Metropolitan Airport struck and killed an 18-year-old man Monday night who worked for a company contracted by an airline. Tugs are used to pull planes from runways or to push them into hangars. The tug that struck the man was not attached to the plane.

The incident remains under investigation and the victim's family has been notified of the death, said airport spokesman Michael Conway. The Wayne County Medical examiner's office has the body, Conway said. Medical examiner's staff today refused to name the victim because his family had not yet identified the body.



American Service International Group -- which also goes by ASIG -- is contracted by the airport for ground handling, baggage, cargo, fueling and other related work. The victim worked for ASIG for about six months, Conway said.

An ASIG employee was driving the tug that struck the victim, Conway said. He said the incident happened shortly before 10 p.m. Monday. "He was just a few months short of 19," Conway said of the man who died. "He was on the ramp and his back was turned. The Tug backed up and hit him. (The driver) was very distraught."

The company's Web site states that ASIG employs 7,500 people at airports in the North America, Europe and Asia. An ASIG spokesperson was unavailable for comment.

ARE YOU SOFT IN THE HEAD? YOU'RE NOT HARD-HEADED ENOUGH

GOT BUMP-CAPS?

"Get this through your thick skull," or "You're a hard-headed person." You've probably heard these expressions - maybe even used them yourself a time or two - but the fact is a **human skull** isn't all that thick or all that hard when compared to some of the hazards in the workplace.



Fatal and disabling head injuries happen when people get hit in the head with running equipment, tools falling from above, broken machine parts projected through the air and many other moving and **stationary objects**.

A **hard hat** provides protection against hazards such as these. It is designed to provide a barrier and absorb shock, to prevent your brain from being injured. Even a minor brain injury can change your life, making it difficult to cope with physical, mental and emotional challenges.

Here are some things you should know about **hard hats**:

Hard hats made of certain materials also provide some protection against electrical hazards, as well as dusts and mists in the air. Specially-designed **hard hats** have brackets to attach earmuffs for hearing protection and faceshields. Other **hard hats** are made to be worn with liners to provide protection from the cold.

Hard hats are made in two distinct parts. The first is the **hard outer shell**. It protects against impact and penetration, preventing objects from striking your head. The second is the **inner suspension system**. It is a series of straps that maintain a space between your head and the hard hat. This system absorbs the shock of impact to prevent head injury. Suspension systems are not interchangeable with headgear from different manufacturers.

Here are some tips for using and taking care of your hard hat:

Get help from your safety supervisor in choosing the right **hard hat** for the particular hazards of your job. Get advice in properly fitting the hat.

Adjust the hard hat for a comfortable fit, so you won't be tempted to take it off. The suspension system must be adjusted to leave a space between the hard shell and your skull.

Inspect your **hard hat** before each wearing. Check the shell for cracks, dents and other signs of damage or wear. Look for rips and other indications of excessive wear in the inner suspension system.

Never drill holes in your **hard hat** or alter it in any other way. Even painting it can destroy its protective capabilities.

Keep your hat away from extreme temperatures. Don't carry it in the window of a vehicle or leave it outdoors in freezing weather.

Wash your **hard hat** once in a while with a mild soap and water. Do not use strong chemicals such as industrial solvents to clean a **hard hat**. You might damage the material and diminish the protective capabilities.

Wear your **hard hat** at all times when you are working in a hazardous area. Your **hat is useless** sitting in the cab of your truck instead of on your head. Being hard-headed means you have a mind of your own. Wear your **hard hat** and keep it.

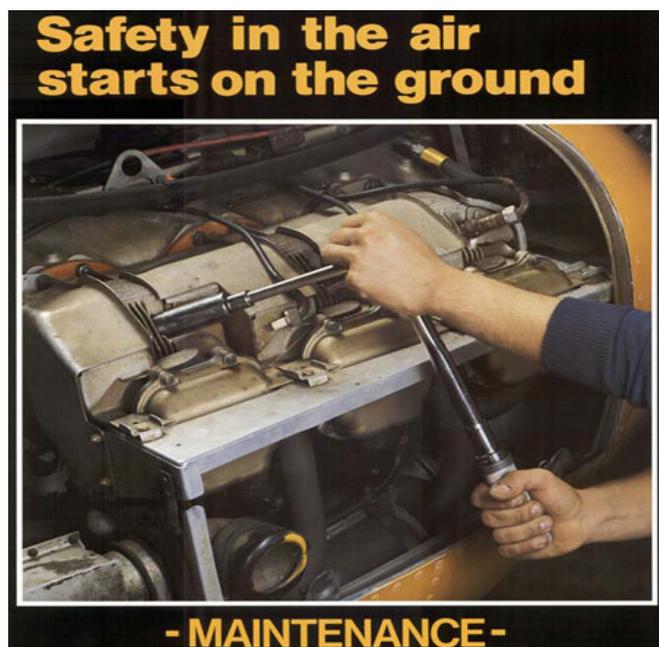
[SAS lambasted for late safety checks](#)

Swedish aviation authorities on Sunday harshly criticized **Scandinavian Airlines System (SAS)** for not carrying out safety checks on its planes on time.

"We are critical," Gunnar Billinger, the head of the Swedish Civil Aviation Authority, told AFP, adding that **SAS' late safety checks were considered "serious"**.

"All airlines... must carry out controls at set times," he insisted.

Five SAS planes last year and three in 2005 did not undergo the required safety inspections on time, Swedish daily Dagens Nyheter reported.



The aircraft in question were Airbus A330 and A340, which are used for longhaul flights to the United States and to Asia, according to the paper.

In one case last year, **a plane flew 225 hours, the equivalent of 30 longhaul flights,** without first being found airworthy, Dagens Nyheter reported.

For a plane to be considered airworthy, safety checks must be carried out at specific dates and the aircraft must be found to conform with guidelines set by the country where it was made, which in the case of the Airbus planes is France.

Aircraft that are not certified airworthy are banned from flying. Any flights they carry out are considered illegal, another aviation authority official told Dagens Nyheter.

Billinger meanwhile said SAS "remains a safe company", pointing out that the **Scandinavian airline had itself notified the authorities to the safety lapses.**

Russia, CIS had highest airline accident rate in 2006 - IATA

Russia and members of the Commonwealth of Independent States (CIS) **had the highest rate of airplane accidents** in the world in 2006, a report from an international air transport body said Tuesday.

The 2006 Safety Report prepared by the International Air Transport Association (IATA) revealed that Russia and CIS countries **had a rate of 8.6 Western-built hull losses per million flights, which is 13 times higher than the global average.**



The second-highest accident rate for air transport after Russia and the CIS was **registered in Africa, at 4.31 accidents per million flights.**

On the whole, the report said that 2006 was the safest year for flying on record.

"The safety results for 2006 are impressive. Air transport remains the safest form of travel. But we must do even better," Giovanni Bisignani, IATA's Director General and CEO, said.

"With demand for air travel increasing at 5-6% per year, the accident rate must decrease just to keep the actual number of accidents in check," he added.

"The goal will always be zero accidents. And the interim target is to reduce the industry rate to 0.49 accidents per million flights in 2008 - a 25% improvement."

IATA's task is to represent, lead and serve the airline industry. Its members comprise some 250 airlines - the world's leading passenger and cargo airlines among them - representing 94% of international scheduled air traffic.

[US warns citizens not to use Indonesian airlines](#)

JAKARTA: The United States yesterday advised its citizens [not to use Indonesian airlines after a spate of accidents](#) including two disasters which have cost more than 120 lives this year. Washington has [downgraded Indonesian airlines'](#) safety rating and Americans should use other carriers when visiting the country, the US embassy here said in a statement.

"On April 16, 2007, the US Federal Aviation Administration (FAA) announced that it has revised Indonesia's safety oversight category from Category 1 to Category 2," said the statement posted on the embassy's website.

"Whenever possible, Americans traveling to and from Indonesia should fly directly to their destinations on international carriers from countries whose civil aviation authorities meet international aviation safety standards," it said.



[Indonesia has been hit by a string of deadly transport accidents including plane crashes, raising doubts about the enforcement of safety standards.](#)

A Garuda jet burst into flames and shot off the runway in the city of Yogyakarta last month, killing 21 people.

On New Year's Day an Adam Air Boeing 737-400 carrying 102 people disappeared from the skies, with only small pieces of the plane found since.

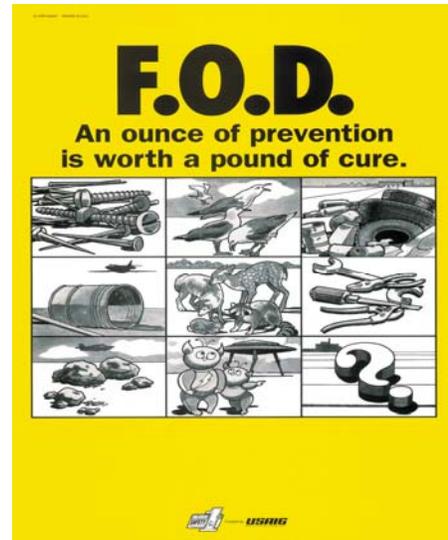
Indonesia is also subject to a litany of minor plane accidents. Last week a Garuda plane landed with a burst tire and in February, an Adam Air craft's fuselage bent badly on landing.

Yesterday's statement said the FAA based its safety downgrade on a controversial audit from the Indonesian civil aviation agency which revealed that none of the nation's 54 airlines had met all minimum safety standards.

FOD And The Space Shuttle

Crews at Kennedy Space Center will **pull all three engines** on the space shuttle Atlantis to ensure a **putty-like silicone** used to gauge changes in fuel-pipe liners **hasn't contaminated the propulsion system**. Post-flight inspections of engines flying in the No. 3 position on the shuttle Discovery found traces of the "RepliSet" material in the preburners.

It apparently had been left behind, upstream of the engine, when crew used the material to make before-and-after molds to see if there were changes in the fuel flow liners during flight. That raised concerns about **foreign object damage** to an engine and led the shuttle program's weekly top-level Program Requirements Control Board to order the inspection on Atlantis and Endeavor. The flow liner issue caused a stand-down in shuttle operations in 2002, and "RepliSet" impressions were ordered during the recovery from the unrelated Columbia accident the following year.



Lockhart crash due to pilot error: ATSB

A speeding pilot, a **woeful maintenance record** and **poor regulation** led to one of Australia's worst aviation disasters, the Australian Transport Safety Bureau (ATSB) has found.

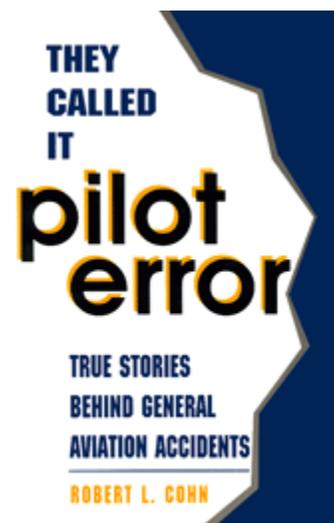
In a painstaking investigation which took almost two years, the bureau **found 19 factors contributed to the deaths of 15 people** aboard a Transair flight which smashed into a mountain in far north Queensland in May, 2005.

Chief among those factors was the actions of the pilot.

"The pilot in command ... used approach and descent speeds and a rate of descent greater than specified," the report said.

"The pilot in command had a history of such flying."

Bureau executive director Kym Bills said the passengers never had a chance of survival.





"Transair's safety management and culture were poor," he told reporters.

"The chief pilot was over-committed with additional roles as managing director and CEO, the primary check and training pilot and also working up to a week a month for an associated company in Papua New Guinea.

"He did not demonstrate a high level of commitment to safety."

Maintenance at the now-grounded regional airline was also a major concern.

"Transair did not have a structured process for pro-actively managing safety-related risks," the report said.

Australia's aviation regulator, the Civil Aviation Safety Authority (CASA), also came in for a lashing in the report.

But Mr. Bills shied away from further berating CASA.

"The regulator has got some more work, we believe, to do based on the recommendations we're making."

Those recommendations cannot be binding, however.

"We encourage anyone to whom we make recommendations to act promptly and we're pleased that CASA are already doing a number of things and, of course, we hope that they'll do others as quickly as possible to enhance safety further."

Bruce Byron, CASA chief executive, said new training programs would be rolled out by CASA to help small airlines meet safety concerns.

"The Civil Aviation Safety Authority will create new training packages that will top up the current training all regional airline pilots receive," Mr Byron said.

"The training will cover situational awareness, threat and error management and crew resource management.

"In 2007, we are doing a better job at surveillance and safety oversight of regional airlines than we did in 2005.

"In the years ahead we will get even better."

The Queensland coroner's office will start its own inquiry into the crash on Thursday in Brisbane.

Family members of victims are expected to comment then.

Australia's safety record comes under scrutiny

Nearly three-quarters of all aviation accidents in Australia between 2001 and 2005 were attributed to operational causes, with the remainder being mechanical, according to a new safety review released by the Australian Transport Safety Bureau.

The Australian Aviation Safety in Review 2007 is the first such report produced by the ATSB and is part of the bureau's mission to enhance public awareness of aviation safety. During the period there were seven accidents involving high-capacity regular public transport aircraft in the country and

12 involving low-capacity regular public transport operations, one of which was the fatal crash of a Fairchild Metro at Lockhart River, Queensland, in which 15 people died.



Most accidents by far in Australia involve general aviation, says the ATSB, with accidents in the private/business category being most prevalent. In 2005, for example, there were 51 accidents in the private/business category, nine of which were fatal.

The proportion of rotary-wing accidents is relatively high compared with fixed-wing aircraft, says the ATSB, with nearly 33 accidents each year over the period - or nearly one-fifth of all accidents. The accident rate for helicopters is more than double that for fixed-wing aircraft and nearly triple the rate in 2005.

Accidents involving a collision were the most common operational-related occurrence, with 197 during the period, of which 30 were fatal. The most common occurrence was collision with terrain, accounting for 103 accidents. A reasonably high number of collisions - 30 - occurred when the aircraft was on the ground.

In 2005, 26 accidents involved collision aircraft control accounted for 21 accidents hard landing was involved in 16 five accidents were fuel-related five involved ground operations and two were wheels-up landings.

Of the 749 accidents between 2001 and 2005, 197 were mechanical-related, with powerplant or propulsion system problems accounting for half. The next most common mechanical factor was a problem with the airframe, followed by aircraft systems, often electrical.

Australia's fatal accident and fatality rates are similar to those of Canada, New Zealand, the UK and the USA, says the ATSB. "Using North America and the UK as a benchmark of best-practice aviation safety, the findings demonstrate that Australia has a good safety record," it adds.

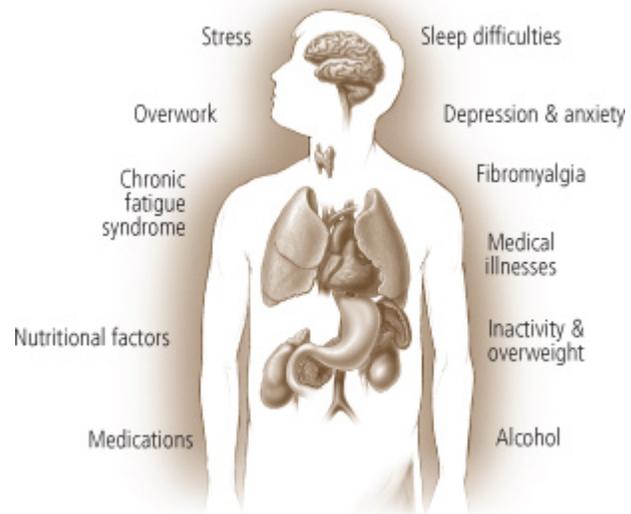
[Tired of being tired? Tips for fighting fatigue](#)

Feeling tired all the time? You're not alone. In fact, **fatigue** is one of the most common complaints that bring adults to doctors' offices. Numerous studies indicate that people who see their doctor about **fatigue** have generally experienced it for a considerable length of time — anywhere from six months to several years!

Causes of Fatigue Causes of Fatigue

Some causes of **fatigue** are obvious, such as lack of sleep or a medical illness, but many others are harder to pinpoint. Depression or anxiety, overwork, sedentary living, nutritional factors, even a medication could contribute to **fatigue** or cause a feeling of low energy.

Fatigue can be due to numerous causes, such as medical conditions like congestive heart failure, hypothyroidism or diabetes. It can also be a result of sleep disturbances brought on by menopause, or by physical changes that accompany aging. But while **fatigue** may be an inescapable part of life, there's no need to take it lying down. Your body is geared toward generating energy as well as expending it. And there are **numerous strategies** to help regain the physical and mental energy needed to enjoy life to its fullest.



Eat for energy

The tried-and-true advice for healthful eating also applies to keeping your energy level high:

- Eat a balanced diet that includes a variety of carbohydrates, proteins, and fats with an emphasis on vegetables, whole grains, and healthy oils. Taking a daily multivitamin will ensure that you get the vitamins and minerals you need, but taking extra amounts of individual nutrients won't give you more energy.
- Eating certain types of foods in particular amounts can help prevent **fatigue**.

Because different kinds of foods are converted to energy at different rates, some — such as candy and other simple sugars — can give you a quick lift, while others — such as whole grains and healthy unsaturated fats — supply the reserves you'll need to draw on throughout the day.

- Eat small, frequent meals. Where energy is the issue, it's better to eat small meals and snacks every few hours than three large meals a day. This approach can reduce your perception of **fatigue** because your brain, which has very few energy reserves of its own, needs a steady supply.

Reduce stress

The most common cause of persistent **fatigue** is stress and the emotional response to it. People who feel **fatigued** most of the time don't necessarily have more stress in their lives than other people, but they may be more sensitive to its effects. Stress-induced emotions consume huge amounts of energy. Relaxation therapy can be an effective tool for reducing stress and naturally boosting your energy, particularly when used in combination with cognitive behavioral therapy. Meditation, self-hypnosis, yoga, and tai chi are all relaxation techniques. One of the easiest techniques to use is progressive muscle relaxation, which involves systematically tightening and releasing sets of muscles, beginning with your toes and progressing up your legs, torso, hands, and arms. You might also consider other relaxation therapies, including aromatherapy and massage.

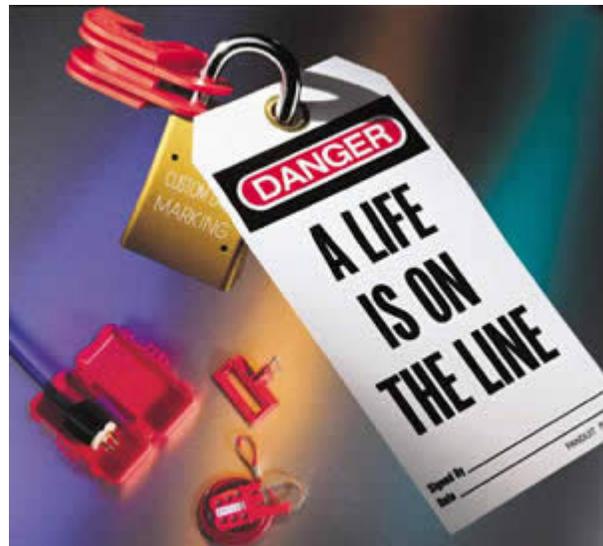
No matter what age you are, there are things that you can do to feel more energetic.

WHEN IN DOUBT, LOCK IT OUT! THE LOCKOUT SYSTEM

Safety systems are in place to protect you. Like certain kinds of safety equipment, safety systems can help ensure **you go home uninjured** at the end of the day.

One important system is called **lockout**. **Lockout** is a series of procedures to keep workers from being injured by accidental startup of machinery.

Written **lockout procedures** are required by law. The safety experts at your company use government guidelines to develop the specific methods for your equipment. It's up to you to follow the procedures.



The purpose of **lockout** is to immobilize equipment so workers can safely conduct repairs or adjustments. It may be necessary to reach inside a machine or actually crawl inside the equipment to do this maintenance work, so this equipment cannot, under any circumstances, be energized in any way.

This is accomplished by isolating the equipment from all sources of energy. Workers conducting **lockouts** must be trained and must know how to identify all energy sources. It is not unusual for manufacturing equipment to be powered by more than one electrical source. Other energy sources include hydraulic, pneumatic, natural gas, propane and even gravity. **Lockout** can also involve protection from moving liquids or solids, blocking pipes and chutes.

Employees who will be affected by the **lockout** must be informed.

When the equipment is turned off at all power sources locks are applied to each control. Effective **lockout** can only be accomplished by isolating the main power disconnect device – not a control switch. Stored energy from springs, compressed air, hydraulic systems and gravity must be released. Before work begins, the controls must be tested to ensure the equipment will not operate.

Lockout is frequently accompanied by another system called **tagout**. A tag with the name and possibly the photo of the worker doing the adjustments on the machine is attached to the lock, reminding others not to try to start the machine because this would endanger the person working inside the equipment.

It is important to observe these **tagout** warnings and not tamper with controls, locks or tags.

After the work is done, checks must be performed to ensure all workers and tools are clear. Affected employees are informed the machinery is about to be energized, and locks are removed.

A safety system such as **lockout** is only effective if everyone involved follows all the steps correctly every time.

Longer Time For IA Renewals

March tends to be a busy month for FAA. It is the annual renewal time for Inspection Authorizations (IA). FAA expects some **15,000 mechanics** will renew their IA this year.





But that will not hold true for 2008.

The agency has decided to lengthen the renewal period for IAs from one year to two. FAA in January released a "direct final rule" to change the renewal period. Under a direct final rule, the requirements take effect almost immediately.

FAA, facing a particularly tight budget this year, is hoping the change will cut its costs to renew the IAs in half. But the agency maintains this will be accomplished without any safety penalty, because the requirements for annual activity -- such as worked performed, training or oral examination -- remain unchanged.

The decision to move to a two-year renewal period came after a series of discussions with industry groups, including the Professional Aviation Maintenance Association, on ways to reduce the costs of IA renewals. PAMA in 2003 began to survey its members on whether the organization should pursue a two-year renewal period. "The intent is to maintain the annual requirement, but only require proof be provided to FAA every two years, instead," PAMA told members, adding, "There are a number of advantages, including reduced travel expense and the opportunity to participate in a more comprehensive training program."

FAA's rule changes the expiration date of an inspection authorization from "March 31 of each year" to "March 31 of each odd-numbered year." The rule stipulates that while the authorization covers a two-year period, the IA holder must complete at least one of the annual requirements for renewal.

These requirements include performing at least one annual inspection for each 90 days that the applicant holds an IA, performing at least two major repairs or major alterations for each 90 days, performing or supervising at least one progressive inspection, attending at least an eight-hour refresher course, or passing an oral test by an FAA inspector.

FAA said completion of the items will help ensure the IA holder maintains currency. This also could help prevent procrastination with compliance, which PAMA warned "could leave an inspector on the wrong side of the regs."

By using a direct final rule, FAA bypassed the traditional notice and comment period that usually comes before release of a rule. The agency accepted comments it released rule released, but FAA expected little opposition to the changes.

The Aircraft Electronics Association commended FAA for the rule, saying, "The one-year Inspection Authorization renewal was a legacy marker from the 'old' way of doing business that offered little benefit to the FAA or to industry to offset the high administrative cost that it incurred."

Benefits and risks of vitamins and minerals

About two out of five Americans take a vitamin or mineral supplement regularly. **But is this money well spent?** Are you already getting the nutrients you need in your diet? Is it enough to take a daily multivitamin, or should you consider adding certain vitamins or minerals and perhaps cutting down on others? Do you know the right amount you need based on your age and gender? Could you be courting health troubles by consistently getting too little — or too much — of certain nutrients?

Many people still lack sufficient levels of certain vitamins and minerals. Over time, this contributes to chronic illnesses such as heart disease, osteoporosis, and cancer. At the opposite end of the spectrum, entirely avoidable ailments are cropping up **in some health-conscious people who take dietary supplements in excess.**



Understanding your body's requirements can be confusing. Some people, particularly older adults, are deficient in vitamin B₁₂, because they have trouble absorbing this vitamin from food. A lack of B₁₂ can cause memory loss, dementia, and numbness of the arms and legs. Large amounts of supplemental vitamin A can actually be harmful to bones and increase the risk of hip fracture. And the recommended allowance of vitamin D (which can reduce the number of non-spinal fractures) for an individual 71 years of age is triple the amount recommended for a person at age 50. But long-term studies and new recommendations from the Institute of Medicine can shed light on these questions.

Take, for example, zinc, which helps form many enzymes and proteins, creates new cells and is necessary for a healthy immune system and wound healing. The recommended dietary allowance (RDA, also known as adequate intake, or AI) for men is 11 milligrams per day, and for women is 8 milligrams per day. **Good sources of zinc include red meat, poultry, oysters and some other seafood, fortified cereals, beans, and nuts.** Because vegetarians absorb less zinc, experts suggest that they get twice the recommended requirement of zinc from plant foods. When taken with certain antioxidants, zinc may delay the progression of age-related macular degeneration.

It's clear that our knowledge of nutritional needs is evolving, not definitive. **New studies can shake the foundation of what researchers once thought was a healthy choice.** For example, at one time research indicated that taking vitamin E supplements might boost your brainpower, reduce your risk of heart disease, and protect you against cancer. However, the results from clinical trials have been disappointing. The most recent studies have concluded that taking vitamin E supplements probably won't hurt, but don't expect much benefit.

On the other hand, there is greater evidence for the benefit of vitamin D supplementation, yet people may not be getting as much of this vitamin as they need. It takes some effort to stay on top of the latest nutrition science, but the payoff can be better health.

SAFETY TIP OF THE WEEK

Watch for Recalled Products During Spring Clean-Out

What Does This Number Represent?

466

That's the number of **hazardous products** recalled last year by the US Consumer Product Safety Commission (CPSC). But not everyone is hearing about these recalls. And that's a big concern to the CPSC, particularly during spring cleaning season.



Cheap recalled products
are no bargain

As people clear out closets and cupboards, they might unknowingly reintroduce a hazardous product back into their homes or into the home of another person by selling the items at a garage sale.

Some items that wind-up at garage sales that could have been recalled include:

- Grills and outdoor furniture
- Outdoor power equipment
- Children's products
- Power tools
- Fans
- Electronic products

To get the word out about unsafe products, the CPSC has launched a new campaign "Drive to 1 Million" and urges consumers to visit its website at www.cpsc.gov and register for **free electronic notification of recalled products**.

The website contains an archive of recalled products, **so before you use that steal of a deal air compressor**, check out the CPSC site first.

END