



## Aviation Human Factors Industry News December 03, 2007

Vol. III. Issue 44

### [Faulty fuel filter suspected in fatal plane crash on golf course](#)

Federal investigators **found an improperly assembled fuel filter** on the single-engine plane that crashed on a golf course west of the city last month, **killing both pilots and critically injuring a passenger.**

An official with the National Transportation Safety Board also discovered a "fine-grained black particulate matter" in the Piper PA-28's fuel pump, according to a preliminary report the agency released today.



Meanwhile, the sole survivor in the crash, which happened about 8 p.m. on Oct. 27 on a putting green in the Quail Ridge Country Club off Golf Road, is recovering in a rehabilitation center at Delray Medical Center.

Chandrashekhar Godghate, a 38-year-old flight student who traveled here with plans to earn his pilot's license before returning home to find work, was listed this afternoon in good condition, a hospital official said.



Godghate, who shares an apartment west of Lake Worth with a handful of other Indian flight students, was seated behind **veteran flight instructor** Anders Selberg, 46, and fellow trainee Arjun Chhikara, 18, during a training flight on the night of the crash, authorities said.

Selsberg took Chhikara through practice approaches at airports in Miami-Dade and Broward counties before heading back toward Palm Beach County Airpark in Lantana, where the men had taken off hours earlier.

Less than five miles south of the landing strip, **something went wrong**.

"We have engine problems. We need to land as soon as possible," one of the pilots radioed to air traffic controllers in the tower at Palm Beach International Airport. "We don't know how long the engine is going to hold for.

"We are in a panic situation right now." People standing outside that Saturday night told investigators they saw the plane pass overhead and heard the engine "sputtering," according to the report.

Soon after, the plane clipped a tree about 30 feet off the ground, careened 160 feet, struck another stand of trees, continued another 110 feet and struck another tree about 15 feet off the ground, according to the report.

The plane plowed into a putting green and skidded another 40 feet before coming to rest.

Both Selsberg and Chhikara were **killed** on impact.

Federal investigators who pored over the wreckage in the days after the crash **noted finding part of the fuel filter, known as a gascolator in aviation terminology, loose against the filter's housing.**

**"A washer was found between the gascolator bowl tightening screw and the bowl,"** the report noted. **"Neither the maintenance manual nor the parts catalog specified a washer in this location for this assembly."** Also noted in investigators' preliminary findings:

\*The airplane, in use by Kemper Aviation, a Lantana-based flight school, **had last been inspected 24 days before the crash, when an overhauled fuel-sending unit and a fuel drain had been replaced on the right fuel tank.** \*The student pilot at the plane's left-hand controls had logged 360 hours of total flight time, including 42 hours at night, and had last flown five days before the crash.

\*The flight instructor at the right-hand controls had logged more than 13,000 hours in single-engine airplanes and held multiple certifications.

\*The flight school reported the plane's fuel tanks had been filled before take-off.

The NTSB will likely release a final report on the wreck in several months, officials said

## China Air Fire Video

A China Airlines airplane burns after an explosion in Naha on Japan's southern island of Okinawa August 20, 2007. The left engine of a Boeing 737-800 jet belonging to Taiwan-based China Airlines exploded shortly after arrival in Naha city from Taipei, ripping the plane apart, officials and witnesses said, but all 165 passengers and crew escaped safely.



[http://podcast.sankei.co.jp/movie/news/wmv/070820china\\_air.wmv](http://podcast.sankei.co.jp/movie/news/wmv/070820china_air.wmv)

## Air Safety Is Self Reported Online

**Everyone makes mistakes.** When those mistakes are made by air traffic controllers, the ramifications could be catastrophic. **The airline industry tracks those mistakes so that others may learn and improve the safety of air travel.**



An industry website spells all those mistakes out in black and white, maybe even more than you ever wanted to know. **The aviation safety reporting system** provides a place for pilots, **crew members** or air traffic controllers to admit **mistakes anonymously**.

A search on the site for 'Austin' retrieves nearly three hundred reports. Here are a few of the highlights:

- One aircraft made an emergency stop because a person was on the runway.
- A plane collided with a catering truck while being guided in to the gate.
- A 737 crewmember reports taxiing and entering the wrong runway.
- And one pilot says his aircraft came within 20 feet of another near the terminal.

Pilot and flight instructor Sean Reilly said the website is an **invaluable tool** for the aviation industry. He adds, "**Aviation is safer because of it.**"

Reilly stated that **people are encouraged to self-report** because the FAA does not allow the information to be used against them. Reilly believes that self-reporting helps **highlight errors** that can then be used in training and prevention of further, more serious accidents.

[Find out more at the Aviation Safety Reporting System website.](#)

## Guess the Number One Air Travel Threat

Many people struggle with the thought of giving up all control and sitting in a "cigar tube" 37,000 feet above the ground for a flight across the country. But the **greatest threat** to modern aviation safety occurs well **before** airplanes are high above the clouds.



**Runway incursions** (near misses between planes on airport runways) pose the **greatest threat to aviation safety**, according to the National Transportation Safety Board (NTSB).

At least **24** near misses that were serious enough to warrant NTSB investigations have occurred at US airports **during the first 10 months of 2007**. In 2006 there were **31** runway incursions.

In one incident in July 2007 at Fort Lauderdale's airport, a panicked air traffic controller screamed "Stop! Stop! Stop! Stop!" when one plane came within moments of crossing a runway while another plane was landing on it.

The NTSB says the Federal Aviation Administration (FAA) needs to move quickly to incorporate new technology that would automatically warn pilots if they were on a collision course at an airport. If that doesn't happen, the **NTSB believes it's only a matter of time** before two planes meet on a US runway, with a massive loss of lives.

## Turbulence Detection System Works

A system that gives **cockpit warnings** to pilots about **bumpy air** has been tested for the past month in some airliners flying east of the Rocky Mountains and **feedback from pilots has been favourable**. "The messages I've received in the cockpit gave a very accurate picture of turbulence location and intensity," Captain Rocky Stone, chief technical pilot for United Air Lines, told editors at Weatherwise Magazine. "The detection of turbulence intensity provides an unprecedented and extremely valuable **new tool** for pilot situational awareness."



The system uses a formula developed by the National Center for Atmospheric Research (NCAR) and is called Nexrad Turbulence Detection Algorithm (NTDA). It works by analyzing wind distribution data gathered by radar sites and crunching the resulting numbers into predictions of where the ride will get rough.

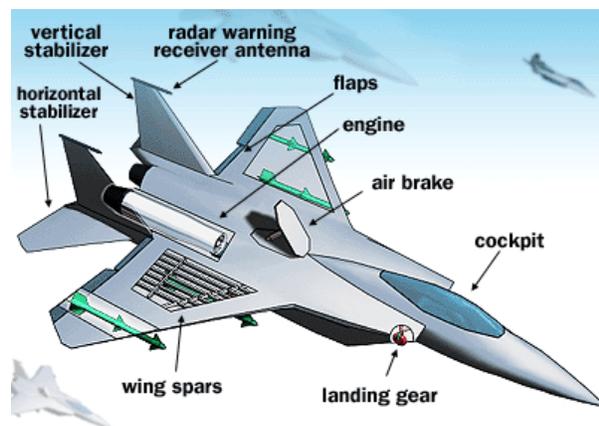
The information is then transmitted in real-time graphic form to pilots, airline meteorologists and dispatchers. The nature and cost of the gear required to receive the messages, which are sent out every 15 minutes, isn't clear, nor is it known whether the turbulence maps will be available to general aviation aircraft. However, the plan is to have the system covering the full continental U.S. by 2011.

## USAF Once Again Orders F-15s Grounded

### 452 Planes Must Be Inspected

Well, **that didn't last long**. One week after the US Air Force lifted its grounding of the oldest F-15 Eagle fighters in its fleet, on Wednesday the **jets were grounded once again** -- due to what officials termed "possible fleet-wide airworthiness problems."

As ANN reported, the Air Force grounded all F-15s, including newer F-15E Strike Eagles, following the November 2 downing of a Missouri Air National Guard F-15C.



Investigators say **in-flight structural failure** was the cause of that crash; the single pilot onboard was able to eject, suffering non-life-threatening injuries in the process.

Air Force officials allowed F-15Es to resume active duty assignments in Iraq and Afghanistan November 14; older models were allowed to resume flying November 21... but now, officials say the ongoing investigation into what brought the Missouri ANG Eagle down has revealed a potential problem through the F-15 fleet.

Investigators are concerned with **longerons** -- or metal rails -- that hold the F-15 fuselage together. Those parts were flagged by investigators early on, as officials ordered the entire fleet of F-15s inspected for **possible air frame fatigue damage**.

The latest grounding applies to 452 older F-15s -- more than 60 percent of the USAF Eagle fleet -- until each is inspected, and possibly repaired.

## **Fossett's Wife Asks Court To Declare Him Dead**

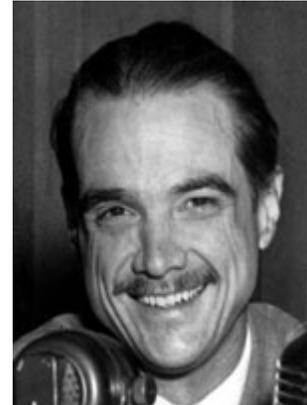
The wife of adventurer **Steve Fossett**, who vanished in September while flying over the Nevada desert, asked a court in Chicago to declare him dead on Monday. "As painful as it is for Mrs. Fossett, other members of the family and his many friends, it is time to initiate this process," lawyer Michael LoVallo told **The Associated Press**. The court petition clarified some details of the disappearance. It stated that **Fossett was on a pure pleasure flight**, not scouting for sites for a land speed record attempt, as was widely reported early on. The petition also confirmed that **Fossett did not take along a watch he owned that was capable of sending out a distress signal**, and he did not have a parachute on board. LoVallo said the court request is a necessary step to resolve the status of Fossett's estate, which he said is "vast, surpassing eight figures."



Besides official search-and-rescue missions, thousands of Internet users **aided in the search** by scrutinizing satellite pictures for clues. Friends of Fossett also funded a private search that continued after the official search was suspended.

## Is It Really 70 Years Ago

Aviation-wise, Howard Hughes may be best remembered for the "Spruce Goose." The project was conceived in 1942. German U-Boats in the North Atlantic were massacring the merchant ships carrying wartime supplies to Great Britain. One potential solution: Deliver the supplies by air. The problem, of course, was to build a plane capable of doing the job. The plane would have to be heavy enough to haul massive amounts of troops, material and equipment and still possess the range to make the Atlantic crossing.



Howard Hughes

Howard Hughes and shipbuilder Henry Kaiser teamed up to meet the challenge. Originally named the HK-1, the Hughes Kaiser flying boat was a monstrosity weighing 400,000 pounds (when loaded) and possessing a wingspan of almost 320 feet. When Kaiser pulled out, Hughes stripped the "K" from its name. But skeptics had another name for the H-4 Hercules: "Hughes's Folly."

Among other things, the critics complained that the plane would eat up too much precious aluminum needed for other wartime projects. To get around the metal shortage, Hughes designed the plane almost entirely of wood. Although it was nicknamed the "Spruce Goose," it was actually made of birch.



**70 years ago**, pilot Hughes taxied the Spruce Goose along the waters of Long Beach bay near Los Angeles. It was supposed to be just a low-speed run over water. But to the surprise of onlookers, Hughes lifted the plane into the air 70 feet above the waves and rode her for about a mile at a speed of 135 MPH. The Spruce Goose could actually fly!

Hughes had defied the critics. But it was a hollow victory. The war had been over for two years and the need for a plane like the Hercules had passed. The Spruce Goose would remain in mothballs until Hughes's death in 1976. The Walt Disney Company acquired the plane in 1988 and tried to turn it into an attraction.

But the venture proved a disappointment. The plane was finally acquired by an Oregon aviation museum in 1995 and that's where it remains today.

## Midnight Shift Nugget

### Buying a Mattress

Let's look at a product we use for approximately one-third of our lives- the mattress. With the help of the Better Sleep Council's website, [www.bettersleep.org](http://www.bettersleep.org) (a non-profit organization supported by the mattress industry), will examine three different types of mattresses:



### Innerspring

The most widely sold type, the innerspring mattress uses a support of steel coils, combined with upholstery, to cushion and support the body. Keep in mind that the number of coils doesn't necessarily determine the quality of the mattress.

### Foam

While foam mattresses have been around since the 1950's, many new types of foam are now available (such as "memory" foam) that offer different feels. Some have solid cores and some are comprised of several layers of different types of foam.

### Airbeds

Using an air-filled core, these designs offer a range of feels. Some even allow for the user to adjust the firmness of the mattress, including by side of the bed, to suit the individual sleeper's needs.

## Graveyard shift work linked to cancer

Like UV rays and diesel exhaust fumes, **working the graveyard shift will soon be listed as a "probable" cause of cancer.** It is a surprising step validating a concept once considered wacky.

And it is based on research that finds **higher rates of breast and prostate cancer among women and men whose work day starts after dark.**





Next month, the International Agency for Research on Cancer, the cancer arm of the World Health Organization, will **add overnight shift work** as a **probable carcinogen**. The American Cancer Society says it will likely follow. Up to now, the U.S. organization has considered the work-cancer link to be "uncertain, controversial or unproven."

The higher cancer rates don't prove working overnight can cause cancer. **There may be other factors common among graveyard shift workers that raise their risk for cancer.**

However, **scientists suspect that overnight work is dangerous because it disrupts the circadian rhythm, the body's biological clock.** The hormone **melatonin**, which can suppress tumor development, is normally produced at night.

If the graveyard shift theory eventually proves correct, millions of people worldwide could be affected. **Experts estimate that nearly 20 percent of the working population in developed countries work night shifts.**

Among the first to spot the night shift-cancer connection was Richard Stevens, a cancer epidemiologist and professor at the University of Connecticut Health Center. In 1987, Stevens **published a paper** suggesting a link between light at night and breast cancer.

Back then, he was trying to figure out why breast cancer incidence suddenly shot up starting in the 1930s in industrialized societies, where nighttime work was considered a hallmark of progress. Most scientists were bewildered by his proposal.

But in recent years, **several studies have found that women working at night over many years were indeed more prone to breast cancer.** Also, animals that have their light-dark schedules switched develop more cancerous tumors and die earlier.

**Some research also suggests that men working at night may have a higher rate of prostate cancer.**

Because these studies mostly focused on nurses and **airline crews**, bigger studies in different populations are needed to confirm or disprove the findings.

There are still plenty of skeptics. And to put the risk in perspective, the "probable carcinogen" tag means that the link between overnight work and cancer is merely plausible.

Among the long list of agents that are listed as "known" carcinogens are alcoholic beverages and birth control pills. Such lists say nothing about exposure amount or length of time or how likely they are to cause cancer. [The American Cancer Society Web site notes that carcinogens do not cause cancer at all times.](#)

Still, many doubters of the night shift link may be won over by the IARC's analysis to be published in the December issue of the journal Lancet Oncology.

"[The indications are positive,](#)" said Vincent Cogliano, who heads up the agency's carcinogen classifications unit. "There was enough of a pattern in people who do [shift work](#) to recognize that there's an increase in cancer, but we can't rule out the possibility of other factors."

Scientists believe having [lower melatonin](#) levels can raise the risk of developing cancer. [Light shuts down melatonin production,](#) so people working in artificial light at night may have lower melatonin levels.

Melatonin can be taken as a supplement, but experts don't recommend it long-term, since that could ruin the body's ability to produce it naturally.

[Sleep deprivation may be another factor in cancer risk.](#) People who work at night are not usually able to completely reverse their day and night cycles.

"[Night shift people tend to be day shift people who are trying to stay awake at night,](#)" said Mark Rea, director of the Light Research Center at Rensselaer Polytechnic Institute in New York, who is not connected with the IARC analysis.

[Not getting enough sleep makes your immune system vulnerable to attack, and less able to fight off potentially cancerous cells.](#)

[Confusing your body's natural rhythm](#) can also lead to a breakdown of other essential tasks. "Timing is very important," Rea said. Certain processes like cell division and DNA repair happen at regular times.

[Even worse than working an overnight shift is flipping between daytime and overnight work.](#)

"The problem is re-setting your body's clock," said Aaron Blair, of the United States' National Cancer Institute, who chaired IARC's recent meeting on shift work. "If you worked at night and stayed on it, that would be less disruptive than constantly changing shifts."

Anyone whose light and dark schedule is often disrupted — including frequent long-haul travelers or insomniacs — could theoretically face the same increased cancer risk, Stevens said.

He advises workers to sleep in a darkened room once they get off work. "The balance between light and dark is very important for your body. Just get a dark night's sleep."

Meanwhile, scientists are trying to come up with ways to reduce night workers' cancer risk. And some companies are experimenting with different lighting, seeking a type that doesn't affect melatonin production.

So far, the color that seems to have the least effect on melatonin is one that few people would enjoy working under: red.

## "Smart" Tools Make Good Sense

NEW FROM BONDHUS - a unique line of FELO brand "Smart" tools, which feature handles that can be used in either screwdriver or "T" type handle positions, and a wide range of high quality interchangeable blades. The screwdriver blades are expertly machined from the finest European Chrome/Molybdenum/Vanadium steel and heat treated to the highest possible hardness levels to give tool users a lifetime of precision service.

FELO is a world leader in the development and manufacture of a broad range of high quality screwdrivers and toolbits. These exciting FELO products can be ordered and shipped same day from stock at Bondhus, Corporation.



Bondhus Corporation manufactures and distributes innovative, high quality, time saving tools for use in electronics, automotive, hobby and machine tool industries. For information on other innovative tools, visit our web site at [www.bondhus.com](http://www.bondhus.com) or call us at 800-328-8310.

## Preserving Night Vision

**Diminished night vision** is one of the most common problems of the aging eye — among older people, it contributes to auto accidents, as well as falls and stumbles at home.



### Taking steps to keep night vision clear

When people think about improving their night vision, often the first thing that comes to mind is carrots. Carrots are rich in vitamin A, and a derivative of vitamin A (11-cis-retinal) is needed for dark adaptation. However, most Americans have adequate amounts of vitamin A from their diet and/or multivitamin **so eating carrots (or taking vitamin A supplements) probably won't have much impact on night vision.**

**A better strategy is eating a good overall diet that's rich in fruits and vegetables and low in saturated fat.** Not that old tune again! Dr. Gregory Jackson, a researcher who has studied **night vision** extensively says that even if our blood is loaded with vitamin A and its derivatives, the compounds may not reach the **rod cells** if the transfer is blocked by deposits of cholesterol and waste products in Bruch's (pronounced brooks) membrane, a thin layer of tissue that lies between the **retina** and its rods on one side and, on the other, the filigreed network of tiny blood vessels that service the eye. **In short, the same "gunk" that harms the cardiovascular system may also adversely affect our eyes.**

**Aside from cataract surgery, there's no medical intervention that will fix night vision.** Researchers have found that many older drivers voluntarily give up night driving, perhaps the best solution. At home night lights, open shades and bright lighting can help out the aging eye. Here, as in many other areas, the key to aging gracefully is really a matter of **working with a problem rather than trying to deny it or treat it into submission.**

### Why night vision gets weaker as we get older

#### Smaller pupils

Several changes in the eye explain why we find it harder to see in darkness. The iris is familiar as that pigmented ring that gives our eyes their distinctive color. But it's not there just to look pretty. The iris comprises a tiny set of muscles that control the size of the pupil. These, like many muscles in the body get weaker and less responsive with age. As a result, the pupil shrinks from a diameter of about five millimeters when we're young adults to about three millimeters in old age. Less light can enter the eye and muscles don't react as quickly, so the pupil is slower to constrict in bright light and to dilate in darkness.

### Cloudier lens

Changes in the lens of the eye also serve to impair night vision by becoming less transparent, allowing less light to pass through. When part of a lens becomes very opaque it is called a cataract. The main symptoms are blurry vision and difficulty with glare, but night vision suffers, too. Cataract surgery is very common, safe, and effective these days, and one side benefit is better night vision.

### Fewer rods

Changes in the retina are yet another reason for worsening night vision. The retina — the membrane that lines the back of your eye — is somewhat analogous to the film in a traditional camera or perhaps to the sensor in a digital one. Light hitting the photoreceptor cells of the retina triggers biochemical changes in those cells, which send signals to the optic nerve. When those signals reach the brain, they are processed as images, and we experience the sensation of sight.

These photoreceptors come in two varieties, cones and rods. Cones respond to light in the wavelengths associated with color, giving us color vision and visual detail. Rods only provide black-and-white images — but they're exquisitely sensitive and are therefore crucial to good night vision. Studies show that we hold on to the cones, but may lose almost a third of the rods.

### Dark adaptation

Our ability to see at night isn't just a matter of navigating in darkness. Often, we're asking our eyes to adjust back and forth between light that's suddenly very bright and then dim again. Ophthalmologists call the ability to see in the dark after exposure to bright light "dark adaptation," and it usually takes longer for older eyes. Most likely dark adaptation gets slower because rhodopsin, the light-sensitive pigment in the rod cells, doesn't regenerate as fast in older eyes.

## Enhancing Alertness at Work

Ensuring **alertness and safety** in the workplace is one of the most important responsibilities for managers. Here are some **tips** on how you can enhance alertness in your work environment.

**Encourage exercise.** Allowing **shiftworkers** — especially those with sedentary jobs — the opportunity to exercise at work is one of the most popular and effective things a **24-hour company** can do. Companies find morale and alertness improve on the job, and workers benefit from better mood, health and sleep at home (provided the exercise isn't too close to bedtime).





To encourage exercise, some companies even allow people to exercise while they work, putting treadmills, rowing machines or stationary bikes in control rooms. If this isn't feasible at your company, you can still set up a room for use during breaks furnished with exercise equipment, lights weights, etc.

**Use light to your advantage.** Research suggests that **exposure to bright light results in improved alertness**, particularly if the exposure comes before the nightly low in body temperature (usually around 5 a.m.). In general, you should keep the work environment as well lit as possible – without annoying workers.

Another option is to have one break room where employees can be exposed to bright light if they choose. Some **24-hour companies** have purchased commercially-manufactured bright light boxes that workers use on nights when they're feeling tired.

**Set up a post-work rest room.** After a **night shift**, workers are at a **high risk for falling asleep at the wheel** during their commute home. **To reduce this risk, set aside a room where they can take a nap before driving.**

The site need not be extravagant. A small room with two or three recliners, cots or mattresses gives tired employees a place to figuratively **recharge their batteries** before heading home.

**Allow controlled napping.** If the idea of setting up a post-work rest room sounds good, the next step is to permit **shiftworkers** to use the room to **nap** on breaks. A 10- to 20-minute nap early in a shift significantly improves alertness and reduces the chances of nodding off on the job.

Unfortunately, many managers in North America perceive **worksite napping negatively – “paying people to sleep.”** But think of it this way: If workers have one 30-minute break per shift, during which they can eat a meal or read a book, **why can't they use the same time to nap?** Many **shiftworkers** nap despite policies against it, so setting up formal guidelines takes the stigma out of their “criminal” activity and puts you in control of the situation.

**Seek out shiftwork-friendly products.** Since workers are on the job for 8-12 hours at a time, you can make their jobs easier by **installing furniture and other products designed to minimize fatigue and stress.** Examples include ergonomically-correct chairs, stools that provide support to standing workers, computer screens that relieve eyestrain, and “anti-fatigue” floor mats.

One key here is durability, since these products are used 24 hours a day. With office furniture, you want to find products that reduce discomfort and backaches, but aren't so comfortable that they set the stage for falling asleep.

Train shift supervisors on how to keep their crews alert. **Shift supervisors** are one of the most vital links in your organization for maintaining the reliability and performance of your **shiftwork** operations. The difference in **effectiveness is enormous** between a shift supervisor who is skillful in keeping a crew alert at three o'clock in the morning, and one who is poorly trained and ineffective. A creative, energetic, and well-trained supervisor **knows when the risks of fatigue-induced errors** and bouts of attention are most likely to occur, and will intervene to reduce the risk.

## Anxiety and Sleep Disorders

A good night's sleep is important to good health. Many of us toss and turn or watch the clock when we can't sleep for a night or two. But for some, a restless night is routine. More than 40 million Americans suffer from chronic, long-term sleep disorders, and an additional 20 million report sleeping problems occasionally, according to the National Institutes of Health. Stress and anxiety may cause sleeping problems or make existing problems worse. And having an anxiety disorder can only exacerbate the problem.



### What is an anxiety disorder?

Anxiety disorders are a unique group of illnesses that fill people's lives with persistent, excessive, and unreasonable anxiety, worry, and fear. They include generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), panic disorder, posttraumatic stress disorder (PTSD), social anxiety disorder (SAD), and specific phobias. Anxiety disorders are real, serious medical conditions, but they can be treated. Click [here](#) to read a more detailed overview.

### What is a sleep disorder?

Sleep disorders are conditions characterized by abnormal sleep patterns that interfere with physical, mental, and emotional functioning. Stress or anxiety can cause a serious night without sleep, as do a variety of other problems. Insomnia is the clinical term for people who have trouble falling asleep, difficulty staying asleep, waking too early in the morning, or waking up feeling unrefreshed. Other common sleep disorders include sleep apnea (loud snoring caused by an obstructed airway), sleepwalking, and narcolepsy (falling asleep spontaneously). Restless leg syndrome and bruxism (grinding of the teeth while sleeping) are conditions that also may contribute to sleep disorders.

**Does an anxiety disorder lead to a sleep disorder, or does a sleep disorder cause an anxiety disorder?**

Either is possible. Anxiety does cause sleeping problems, and new research suggests sleep deprivation can cause an anxiety disorder. That's because a lack of sleep stimulates the part of the brain most closely associated with depression, anxiety, and other psychiatric disorders. Research also shows that some form of sleep disruption is present in nearly all psychiatric disorders.

For those living with anxiety disorders, insomnia is part of a vicious cycle. Many symptoms of anxiety disorders, including excessive stress, persistent worry, obsessive thoughts, gastrointestinal problems, and nightmares are likely to rob precious sleep. And some antidepressants commonly prescribed for anxiety disorders may cause sleep difficulties. The results of a study published in the July 2007 issue of *Sleep* suggest that people with [chronic insomnia are at high risk of developing an anxiety disorder](#).

Other research suggests that sleep deprivation results in people focusing on negative emotions, according to Mark H. Pollack, MD, director of the Center for Anxiety and Traumatic Stress Disorders at Massachusetts General Hospital. Pollack says this can decrease the effectiveness of exposure-based cognitive-behavioral therapy.

**If I have a sleep disorder, does that put me at risk for other health issues?**

The risks of inadequate sleep extend way beyond tiredness. Sleeplessness can lead to poor performance at work or school, increased risk of injury, and health problems.

“Ninety percent of the time people who have insomnia also have another health condition,” says Thomas Roth, PhD, director of the Sleep Disorders and Research Center at Henry Ford Hospital. “Most frequently those include anxiety and mood disorders, and treating each condition impacts the course of the other.” Those with sleep disorders may also be at risk for heart disease, heart failure, irregular heartbeat, heart attack, high blood pressure, stroke, and diabetes. And [some researchers](#) say that adults who sleep less than six hours a night are 50 percent more likely to become obese than those who sleep seven to eight hours a night.

### What are my treatment options?

It's important to obtain an accurate diagnosis for any medical conditions that may contribute to a sleep disorder or anxiety disorder, as well as to determine which is the primary condition. This information will help you and your doctor determine the most appropriate treatment plan.

If you suspect you have a sleep disorder, see a primary care physician or mental health professional, or visit a clinic that specializes in sleep disorders. (To find one near you, go to [www.sleepcenters.org](http://www.sleepcenters.org).) Treatment options include sleep medicine and cognitive-behavior therapy, which teaches how to identify and modify behaviors that perpetuate sleeping problems.

Treatment options for an anxiety disorder include cognitive-behavior therapy, relaxation techniques, and medication. Your doctor or therapist may recommend one or a combination of these [treatments](#). (To find a therapist near you, [click here](#).)

### What else can I do to reduce anxiety and sleep more soundly?

#### To reduce anxiety and stress:

**Meditate.** Focus on your breath — breathe in and out slowly and deeply — and visualize a serene environment such as a deserted beach or grassy hill.

**Exercise.** Regular exercise is good for your physical and mental health. It provides an outlet for frustrations and releases mood-enhancing endorphins. Yoga can be particularly effective at reducing anxiety and stress.

**Prioritize your to-do list.** Spend your time and energy on the tasks that are truly important, and break up large projects into smaller, more easily managed tasks. Delegate when you can.

**Play music.** Soft, calming music can lower your blood pressure and relax your mind and body.

**Get an adequate amount of sleep.** Sleeping recharges your brain and improves your focus, concentration, and mood.

**Direct stress and anxiety elsewhere.** Lend a hand to a relative or neighbor, or volunteer in your community. Helping others will take your mind off of your own anxiety and fears.

**Talk to someone.** Let friends and family know how they can help, and consider seeing a doctor or therapist.

### To sleep more soundly:

**Make getting a good night's sleep a priority.** Block out seven to nine hours for a full night of uninterrupted sleep, and try to wake up at the same time every day, including weekends.

**Establish a regular, relaxing bedtime routine.** Avoid stimulants like coffee, chocolate, and nicotine before going to sleep, and never watch TV, use the computer, or pay bills before going to bed. Read a book, listen to soft music, or meditate instead.

**Make sure your bedroom is cool, dark, and quiet.** Consider using a fan to drown out excess noise, and make sure your mattress and pillows are comfortable.

**Use your bedroom as a bedroom** — not for watching TV or doing work — and get into bed only when you are tired. If you don't fall asleep within 15 minutes, go to another room and do something relaxing.

**Exercise.** Regular exercise will help you sleep better, but limit your workouts to mornings and afternoons.

**Avoid looking at the clock.** This can make you anxious in the middle of the night. Turn the clock away from you.

**Talk to your doctor** if you still have problems falling asleep. You may need a prescription or herbal sleep remedy.

## SEASONAL SAFETY

### 5 Winter Driving Tips

#### 1. Clear the Snow

Clear all snow from your car's windows, lights, license plates and roof of your car. Also keep in mind that snow blowing from the roof and hood of your car poses a visibility hazard to the driver behind you.



#### 2. Back Off

Tailgating leads to accidents and could provoke road rage. Exercise patience with the vehicle in front of you. This is good advice at any time. But during winter, it's especially critical. Give people extra lead time when roads are covered with snow, ice, slush and rain. You'll thank yourself when the car ahead suddenly spins out.

### 3. Know How to Brake

Braking poses special challenges when roads are wet and icy. Don't take the wheel until you know how to brake in these conditions. If you go into a skid, take your foot off the gas, steer into the skid and regain control. If you have to stop right away pump your brakes—don't slam on them. If your vehicle has anti-lock braking systems (ABS), apply steady pressure to the brake pedal.

### 4. Winterize Your Vehicle

In the old days, we used to change to snow tires for the winter. All-season radials have made this unnecessary in many areas. But there still are things we need to do to prepare our vehicles for the cold and icy climate. Plug in a block heater, add fuel line de-icer to the fuel tank and consider using a battery warmer. Keep your tires properly inflated (check them before you drive) so that you never feel the flat spot of frozen tread as you start off in the morning. Use chains on your tires when conditions warrant.

### 5. Winterize Yourself

The most important part of the vehicle to winterize is the driver. Winter weather is unpredictable. So be prepared for the unexpected. More specifically, anticipate that you might be stranded and keep these essentials in your car:

- A spare tire, properly inflated;
- A shovel and a bag of sand, salt or cat litter for traction;
- Spare warm clothing and a pair of boots; and
- Blankets, candles and food.

### Picture This!

