



photographers capture Christmas light displays across Lenawee County.
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An unexpected drawback



Adrian resident Jerry Straub holds a compact fluorescent lightbulb. Straub loses his ability to function in the presence of CFLs.

Telegram photos by Lad Strayer

CFLs keep Adrian man from functioning

By Phil Johnson
Daily Telegram Staff Writer

RAISIN TWP. — Compact fluorescent light (CFL) bulbs are reducing energy costs for many, but they're a stumbling block for Adrian's Jerry Straub.

According to the United States Environmental Protection Agency, CFL bulbs save consumers about \$30 over the life of the bulb, use about 75 percent less energy and last up to 10 times longer than incandescent bulbs. But all the savings in the world can't make up for what Straub loses in the presence of CFLs: his ability to function.

A 1995 auto accident in which Straub suffered a severe whiplash injury, left the retired engineer without vestibular functioning.



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Without his ability to balance, Straub had to rely on others to help him walk. Years of therapy allowed him to walk with the help of a walking stick and 15 months of neuro-optometric therapy in Traverse City helped him walk independently.

Recycling location

According to www.earth911.org, the nearest location for Adrian residents to recycle Compact Fluorescent Light (CFL) bulbs is the Ann Arbor drop-off site at 2950 E. Ellsworth Road, Ann Arbor, MI 48104. Visit www.recycleannarbor.org for facility hours, or call (734) 971-7400.

That progress came crashing down, along with his body, on Dec. 28, 2006. As Straub climbed stairs between his family room and living room, he fell face-first to the ground. He said he was confused and disoriented after the fall and felt as if his "brain was in a blender."

Falling down during his months of therapy was nothing new for Straub, whose left hand had to be reconstructed to repair damages from repeated falls. But this fall was inconsistent with his progress. Trying to figure out what triggered his stumble, Straub learned that his wife, Carol, had just finished installing CFL light bulbs in the living room. Straub said he left the room and slowly began to regain his composure while the lights were switched back to incandescent bulbs.

Since his first experience with the CFL

bulbs, Straub has had similar reactions to lights at a home show and a motel exercise facility, both times leaving him disoriented and unable to walk without support. His reactions have left his doctors perplexed.

"I really wish I knew. That's the question of the year," said Dr. Jan Hansen of Saline, about the causes of Straub's symptoms. "I'm scratching my head as much as anyone."

Hansen, who has been working with Straub since his auto accident, said she has patients who have complained of headaches due to certain types of light, but she has never seen a case exactly like Straub's. Unfortunately, she has little advice to give him.

"I've seen adverse reactions to things so I thought, 'Let's just let the information evolve,'" she said.

Straub is combating the problem by crusading against CFL lights. He calls ahead before he patronizes stores or restaurants, and sold homes in Canada and northern Michigan both to avoid the bulbs and to be closer to family. Canada has passed legislation to ban incandescent light bulbs by 2010. With other pending legislation and the rising popularity of CFL bulbs in the United States, Straub is worried that someday he may be a prisoner in his own home. But Straub's problem is only one of the potential hazards of CFL lighting. A glance at one of the bulbs' warning labels reveals that CFLs contain mercury, a neurotoxin that can cause damage to the body's nervous system and kidneys.

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According to the EPA, most CFL bulbs contain around 5 milligrams of mercury, which would be equivalent to roughly the tip of a ballpoint pen. Sealed within the bulb, the toxin can be released in the event the CFL breaks.

But the EPA endorses using CFLs on its Web site, despite the mercury, because it says the bulbs use less energy than conventional bulbs, which in turn reduces mercury emissions from coal-fired power plants. The agency also predicts that mercury levels in the bulbs will reduce as new technology becomes available.

Currently Michigan has no law regulating the disposal of CFL bulbs, according to Brendan Boyle, a departmental specialist with the Michigan Department of Community Health. He said consumers have the option of throwing them in the trash or finding a recycling center.

"I think people are scurrying to find a way for people to get rid of them safely now but there is none in place," Boyle said.

He said a possible solution would

be bulb retailers offering recycling services on-site.

"We really want people to use them," Boyle said. "We're not worried about the amount of mercury in the bulb but any amount of mercury being released into the atmosphere is not doing anyone any good."

Along with the hazards of mercury, CFL warning labels also warn consumers that the bulbs can emit Radio Frequency Interference (RFI), which can cause some electronics to malfunction. Straub thinks the RFI could be tampering with the electrical impulses in his brain, which he said provides a possible explanation for his ailment.

"This thing hasn't gotten any credibility yet because I'm the only one out there," he said.

He fears he isn't really the only one though. With so many veterans returning with combat injuries from Iraq and Afghanistan, Straub said he wonders if others will experience his symptoms.

The retired engineer is trying to avoid CFLs but stay in the context of "being green" by installing Light Emitting Diodes (LEDs). A trip to a lighting center in Chelsea helped him outfit his kitchen with remote-controlled LED strips. He's also purchased strands of LED Christmas

lights which he estimates will only cost 18 cents to run for six weeks.

"I've been devouring everything I can on LED light," Straub said.

But fighting back by promoting LED lighting has been tough for Straub. Currently LEDs are not as readily available for household use as CFLs.

One promising lead for the Adrian man has been the work of John Goeken, founder of Microwave Communications Inc. and developer of the GTE Airfone. Goeken owns PolyBrite International, a company looking to expand the household bulb market to include LED technology.

Straub and Goeken have corresponded about Straub's situation and occasionally catch up over the phone.

Currently, PolyBrite markets LED technology for safety, display and recreational lighting, but Goeken said he estimates that PolyBrite lighting for homes could be in stores and homes soon.

Carl Scianna, CEO and founder of PolyBrite, said the Naperville, Ill. based company's products will hit shelves in the first quarter of 2008 under the Sylvania brand. Scianna said bulbs will be available for all household uses and will likely cost between \$10 and \$12.

Broken bulb disposal advice

The Environmental Protection Agency offers the following advice to consumers on disposing of broken fluorescent bulbs.

■ Open a window and leave the room for 15 minutes or more.

■ Carefully scoop up the fragments and powder with stiff paper or cardboard and place them in a sealed plastic bag.

Use disposable rubber gloves, if available (i.e., do not use bare hands). Wipe the area clean with damp paper towels or disposable wet wipes and place them in the plastic bag.

Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

■ Place all cleanup materials in a second sealed plastic bag.

Place the first bag in a second sealed plastic bag and put it in the outdoor trash container or in another outdoor protected area for the next normal

trash disposal.

Note: some states prohibit such trash disposal and require that broken and unbroken lamps be taken to a local recycling center.

Wash your hands after disposing of the bag.

■ If a fluorescent bulb breaks on a rug or carpet, remove all materials you can without using a vacuum cleaner, following the steps above. Sticky tape (such as duct tape) can be used to pick up small pieces and powder.

If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken, remove the vacuum bag (or empty and wipe the canister) and put the bag or vacuum debris in two sealed plastic bags in the outdoor trash or protected outdoor location for normal disposal.

That cost, he said, will be made up by savings from the technology's long life. Scianna estimates that his LED bulbs will last up to 50,000 hours compared to the 3,000 to 5,000 hour life of a CFL. He said consumers won't have to sacrifice quality or comfort to save money either.

"The way we make the bulb, once it's on, you won't be able to tell the difference," Scianna said.

The best part of the deal, Scianna says, is that the bulbs are 100 percent environmentally friendly.

"I think the CFL and fluorescent bulb will be a thing of the past," Scianna said. "The future will be LED."

Straub is hoping Scianna's prediction comes true.

"I don't care what solves the problem," he said. "I just want CFLs out of my face."