

Lives Disrupted: LED Lighting Impacts

To Whom It May Concern:

In February, 2022, the UK charity Lightaware gave a formal presentation to the Irish Parliament about the devastating impact of LED lighting on the lives and careers of people with LED-light-sensitivity or light-disabling medical conditions. Americans suffering the same extremes of LED-provoked harm also need an official forum to be heard. Adverse LED-reactions tend to get steadily worse. Many of us must avoid *all* lit LEDs, no matter what, but it's an increasingly fraught and complicated task. Attached are short accounts of LED-induced illness and harm. They're anonymous here because each person in this harrowing position is fearful to some extent, but many of us would be grateful for a chance to speak publicly. Despite some medical challenges, we were managing just fine and living normal lives - right up until LEDs started appearing in public settings indoors and out, where every person needs, wants, and has equal right to be.

The basic thing to understand is this: LED lighting can't be treated like regular lighting or used like traditional bulbs. The very process that forces light from diodes makes the light inherently disruptive to human brains and bodies. There's no way around it. LEDs can't be made safe, and no LED-harm reduction measures can reliably prevent the most dangerous reactions (LED-triggered epileptic seizures that can cause brain injuries or stop a person's heart, for example) Even momentary LED exposure is a threat for many light-sensitive people, but everyone's at risk to a degree. Just as breathing in smoke will hurt everybody's lungs somewhat, while the same smoke can outright kill a person with asthma, certain individuals are in higher immediate danger of serious light-reactive harm. They are the proverbial canaries in this particular coal mine. LED light exposure is having a comparably disastrous effect on wildlife, insect populations, and biodiversity, for the same reasons LED light is impacting us.

The people on this list are describing repeated, unprecedented medical emergencies from encountering increasingly commonplace LED lights. These accounts are medical evidence, powerful proof that LED lighting is unfit for use anywhere except in closed or private settings. This list only includes people I know of personally, who are a tiny fraction of the total number affected. Life-ruining scenarios like these are playing out across the country. Light-disabled individuals are being thrown into crisis as LED lights spring up everywhere, lit day and night, threatening them with bodily injury and incapacitating sickness, and forcing financial hardship, household upheaval and staggering stress onto entire families.

- A woman having lupus flares from the LED lights in her office was told she can't use different lights at work, even at her own desk. She's tried wearing hats, specialized glasses, full-coverage clothing and various medications. Her symptoms are getting worse, happening faster, and lasting longer. She's cut back on her hours, losing wages, and believes she'll soon have to quit work altogether. The constant symptoms she now suffers are ruining her time at home with her family.
- A man whose epilepsy was under control for decades had a seizure one night driving home. The car crashed. He and his wife sustained minor injuries. His wife drove the next two times, and each time he had seizures in the passenger seat as they entered town. He realized that the newly-installed LEDs were triggering his seizures, breaking right through his medication's protection. He has entirely ceased to go out after dusk, and is depressed about the limitations this puts on his life and anxious about his future. His wife has taken over all the driving, and all necessary tasks when the LEDs are lit.
- A woman with epilepsy's anti-seizure medication doesn't stop the neurological symptoms she has after a minute or two near LED lights. New medications haven't helped. She needs to avoid LEDs to be safe, but that means re-ordering almost every activity, leaving all her responsibilities for someone else, and becoming dependent on others for necessities.

- Someone with a Traumatic Brain Injury can't be around any kind of LED lighting for even a second. The person starts to shake all over, suffers instant, severe eye and head pain, and sometimes faints or vomits.
- An otherwise healthy person can't be out under the LED street lights without getting a terrible, vision-altering headache. The person no longer goes out after dark, and no longer drives after dark. They stay home while the rest of the family does things without them.
- A young woman with epilepsy began having seizures every time she went to shop at her usual grocery store. She was always only a few steps into the produce section when it happened. It took her a while to connect her seizures to the LED lighting that was recently installed. She'd never had photic-triggered seizures before. The store manager told her that the only accommodation they'd give her was curbside pick-up. She badly misses her weekly shopping trips. It was one of only a few chances she has to go places independently.
- A boy began having absence seizures whenever he used his new cell phone. It worsened and progressed until he was having grand mal-type seizures. His neurological tests all came back normal. His sensitivity has since increased to include all LEDs.
- A dedicated runner has completely stopped taking evening runs because they can't see properly under LED light. They describe being unable to tell where the sidewalk surface is, stumbling and getting hurt a number of times along their regular route before giving it up.
- A woman began having migraines at work under the new LED lighting. Wearing a brimmed hat helped for a little while, but the migraines came on quicker and lasted progressively longer, and she has since quit the job. She also avoids shopping at that store and any other store with similar lighting.
- A young woman with epilepsy can no longer walk alone to the school where she has a part-time job. There are too many seizure-inducing LEDs in storefronts, on porches and in the headlights of passing cars. She is heartbroken at the loss of this simple freedom.
- In a village with recently converted LED streetlights, a woman who never had sleep problems has discovered the limits of so-called 'black-out' shades. The tiniest bit of LED light slipping in through a teeny crack is enough to keep her awake. She'd rather put up with it than switch bedrooms with her child, as children are even more susceptible to harm from LED light at night.
- A person with no known light-sensitivity has to travel very carefully along LED-lit streets, avoiding even indirectly looking towards any LED because the briefest glance in the wrong direction makes their vision distort. The effect lasts for long minutes afterwards, making it hard to see to drive. They have no choice about driving at night if they want to keep their job.
- A woman with epilepsy is thrown into instant, violent seizures from a brief glimpse of LED streetlamps. She now has permanent injuries and chronic after-effects from streetlight-triggered seizures. She is unable to get to work, has lost all her income, has to leave her home and family every night for basic safety, and lives in fear of any emergency that can't be dealt with without encountering LED lights in some form.
- A child in elementary school began having nausea, headaches and dizziness after the classroom lighting changed to LEDs. The parents complained, so the school put back the original lights in the child's classroom. The rest of the school kept the new LED lighting. The child now enters and leaves the classroom by the outer door, and eats at their desk. Separated out from the school community, solely because of adverse reactions to LEDs, the child has to confine themselves to the small area that was made safe again.
- A woman has debilitating migraines from brief exposure to just about every kind of LED. She has an unrelated chronic condition that requires regular trips to a specialist. To get to the single examining room that the hospital agreed to keep LED-free, she has enlisted her adult children: they drive, park outside the LED-lit parking garage, fetch a wheelchair, help their

mother into the chair, entirely cover her head and body with a blanket, and wheel her quickly along the LED-lit hallways to the examining room. After her appointment, they do it in reverse. If she needs to use the restroom while she's there, she has to hold it until she gets home.

- A person with epilepsy can't step outdoors or look out the windows of her house since the street lights changed to LEDs a couple of years ago. If she catches even a tiny glimpse, she'll have a massive seizure, followed by days of nausea, disorientation, fatigue and headache. The LED-triggered seizures are worse and more extensive than any she has ever had triggered by other photic effects. Medications have never helped control her photic-triggered seizures. She never goes out when the street lights are on, and because no blackout shade can completely block every scrap of trespassing light, she has set up her bed in a room at the back of the house. She worries constantly about emergencies that may require her to get out at night. She is profoundly depressed and angry about her loss of freedom.
- A group of teachers in a junior high school asked to bring floor lamps for their classrooms. They were all having varying degrees of pain and illness in response to LEDs installed while the school was closed by the pandemic. The school wouldn't agree to change back classroom lights unless a student also had a complaint. The teachers are coping as best they can with hats and over-the-counter medications, but they're all disgusted and wondering how they'll manage long-term. It hasn't escaped the teachers' notice that the school won't change any lights back until *after* some child gets sick from LED exposure.
- A man with no prior photosensitivity suddenly began having disabling migraines every single time he came in reach of his city's LED-converted street lamps. The city had followed what is promoted as approved LED-safety guidelines, installing 2700K LEDs. Having installed what they were told was a responsible version of LEDs for a public use, civic leaders now treat him like he's just trying to make trouble for them. His entire life is now constrained by needing to avoid public lighting in everything he does.
- A woman with epilepsy was shopping with her mother when she had a seizure. Her mother got her out of the store and her seizure resolved. The ambulance came to take her to the hospital as a precaution. Once in the ambulance, she had another seizure. Then, at the hospital, she had another seizure while waiting in the hall. Much later she and her mother tried to figure out what triggered such an uncharacteristic series of seizures. They realized that the store, the ambulance and the hospital each had recently installed bright LED lighting.
- A woman who has always done the shopping for her family can't be in most of her usual stores for more than a few minutes without developing a headache so severe it distorts her vision. If she doesn't get back outside quickly enough, her face will go numb, her speech slurs and she gets a strange, disconnected sensation that makes it hard for her to think. The stores all recently put in LED lighting, some overhead, some in display cases. She's tried every method available to delay the onset of the disabling symptoms with no success. Other family members have had to rearrange their own work schedules to pick up doing the shopping which she used to enjoy.
- A young man with no prior photosensitivity was suddenly finding it hard to be in religious services at his usual synagogue, which had lately undergone renovations. Within fifteen minutes or so he'd be feeling strange, and having trouble reading, seeing, or thinking clearly. He had no idea why it was happening, but it was worse each week and leaving him fatigued, aching and foggy-headed the rest of the day. When the pandemic hit, religious services were moved outdoors. His symptoms cleared up completely. When indoor services resumed, his illness returned. He realized it was the sanctuary's LED lights making him sick when he began having the same symptoms in other places that had changed to LEDs during the pandemic.
- Several college students who had to start taking all of their classes remotely began to develop increasingly intense migraines from hours spent on computer screens. For each student, the

effect got progressively worse, happening faster, and causing additional symptoms like nausea, eye pain, and mental confusion along with the headache itself. Some of them got some relief from medication or tinted glasses, at least for a while. For others, nothing worked. They each missed classes and fell behind. Several of them report new sensitivity to LED and bright lighting of every kind which was never a problem for them before.

- A woman with epilepsy lives alone out in the country to avoid city stressors like overnight lighting and excessive traffic noises and fumes. There's one store down the road from her house, but she mostly drove into town for errands, appointments, entertainment and shopping. Lately LEDs have been cropping up in all the buildings, and along all the streets, so she's had to quit driving because even brief exposure to LED light causes her to have disorienting pre-seizure auras. If she can't get to safety in time she'll suffer a full-blown epileptic seizure. Now unable to undertake in-town tasks independently, she's had to sign up for medi-van services which are strictly limited to medical needs. She could still walk to the nearby convenience store for a few basics up until very recently, when that store installed exterior LED lights that are on continuously. She doesn't know if the inside lights also changed because she can't safely approach the building. The store said she could call and ask for some items to be brought out for her, but they won't bring anything beyond the shop front, so it's a useless offer.
- A man recently moved to a new city where it's an easy walk from his house to all city amenities and services. The man, however, has been having alarming adverse reactions to the city's Rectangular Rapid Flashing Beacons – large signs flashing LEDs at eye height, next to crosswalks on the main streets. The moment he's in sight of an RRFB, he's thrown into a panic response, with eye pain, agitation, disorientation and an overwhelming sense of acute anger and fear. He has to immediately get away, but it's some time before his symptoms subside. There aren't many ways to get around the city without encountering the flashing signs, and many necessary services are on the opposite side of the city from his house. He's tried driving instead of walking, but was much worse. Disturbingly, any time he attempts to do things downtown, his reactions to the flashing LEDs happens faster, from further away. His city's DPW director told him the city installed prominent RRFBs so that residents crossing the street will be “safe.”
- A woman with epilepsy becomes very ill with auras and other neurological symptoms around new municipal LED lights. She doesn't want to complain to town leaders, though, because she has reason to fear it will negatively impact her career. She's had to scramble to rearrange everything she does for work or family so that she can avoid exposure to the LEDs.
- A man was forced out of his long-term job when new LED office lighting came in a few years ago. He had been managing his sensitivity to the previous florescent lighting with medication, specialty eyeglasses and a brimmed hat. None of those things worked against the LEDs, and each successive day his blinding headaches, sharp eye pain, intense fatigue and mental fog hit sooner and lasted longer, sometimes for days. His employer declined to do anything about the lights, and only offered to help him get on disability after he gave up his job altogether. He and his wife moved out of state so she could find work to support their growing family. He took over other household tasks. This was manageable for a while, but then businesses, schools and medical facilities in their area started switching to LED lighting, quickly followed by a conversion to LED street lighting. The only way he now has to remain at all safe is to NEVER step foot under LED lights, or he'll be catastrophically ill within minutes.

Submitted by M. Cherry, Cambridge New York. Compiled February 2022.

Link to LightAware presentation to Irish Parliament:

https://www.oireachtas.ie/en/debates/debate/joint_committee_on_disability_matters/2022-02-03/