



MySafe:LA Podcast

Fire and Life Safety Education

Our mission: providing children, families, and seniors in Los Angeles with life-saving education, resources, and benefits.

Episode 16

Fire Protection Publications AD, Oklahoma State University, Nancy Trench

Announcer: MySafe:LA is the public education partner of the Los Angeles fire department. You're listening to a MySafe:LA fire and life safety podcast.

Cameron: Hello everyone this is [Cameron Barrett 00:00:15] the education director from my safe LA. Thanks for joining us for another fire and life safety podcast. We are going to be talking about smoke alarms just like we've been talking about in our last several podcasts. It's a very important topic. We're fortunate today to be joined by a true expert in smoke alarms and that's Nancy Trench assistant director of fire protection publications at Oklahoma state university. Welcome Nancy thanks so much for joining us.

Nancy: It's good to be here today.

Cameron: We asked you to come on to our podcast because you have access to some pretty compelling data and research having to do with smoke alarms in homes throughout the country and it's an important topic to us because we have had a very fatal year so far in Los Angeles.

We've lost 8 people in the first six weeks of 2014 to fire fatalities. Every single one of those people lived in a home without a functioning smoke alarm or with no smoke alarm at all.

Is that unusual Nancy? Is that something that happens throughout the country or are we unusual here in Los Angeles.

Nancy: It's very typical. Where we see fire deaths across America is in homes where there is no working smoke alarm. In fact, we can almost predict what homes or what people living in homes might have a fatal fire.

Cameron: Wow.

Nancy: Statistics tell us that people who smoke, people who live in poverty and people without a high school education are at high risk of a home fire death. We also see indication that people who live in really rural areas or people who live in concentrated urban environments are at greater risk. The newest data that we see also points to some ethnic

differences. If you are Black or a Native American you have a much higher risk of a home fire death than if you are Caucasian, then who has the least likely possibility of a fire death across our country are Asian Americans.

Cameron: You know we are a very ethnically diverse city and we are also, as you well know, in Los Angeles packing in pretty tightly. So those are two red flags that go up for us when it comes to dealing with fatal fires here in the city.

We usually lose about twenty people a year, and often I would say nearly 100% of the time. The people who die in fires in Los Angeles don't have working smoke alarms. So, our data this year with the eight fatal fires isn't unusual sadly. But, it's really confounding to us here at my safe LA and to the men and women who fight these fires at the Los Angeles fire department that there aren't working smoke alarms in these homes. Why do people still not have a working smoke alarms in their homes? Is there research that can answer that question Nancy?

Nancy: Well, there are indicators. One thing we know is that if smoke alarms aren't installed in the proper locations or in the correct locations at a home. You get nuisance alarms that people get really tired of that smoke alarm going off when they burn the toast, for example. Or when they've had a steaming shower and they open the bathroom door and the smoke alarm goes off. So the people themselves, say I'm really tired of that and they disable the alarm. They take it down, or they take the battery out.

So, installing the right kind of smoke alarm in the right location so we don't get nuisance alarms is a key.

Also, today having plenty of smoke alarms. One is not enough. We recommend you have a smoke alarm in every bedroom outside of each sleeping area and on every level of the home. In Oklahoma our average is four and a half smoke alarms per home when we install alarms for people with disabilities.

Cameron: Can you give me an idea of four and a half alarms per what square footage of home? What's a general square footage measurement in Oklahoma?

Nancy: Well Cameron, it's not as much as square footage as it is the layout of the home.

Cameron: Ahhh

Nancy: So, for example, if you have two bedrooms. One at one end of your house you need one outside that bedroom and in each sleeping room.

But, maybe you have a room at the other end of your house that's your guests room or your mother in law room. Then, you need a smoke alarm in that bedroom and outside that second sleeping area.

Cameron: All right.

Nancy: One of the key things to remember is that alarms, ionization kinds of alarms need to be not in the kitchen or close to the kitchen.

So, if the house is small, like many of our older homes where people live. Then you need a photoelectric alarm, if you have to have an alarm that is closer to the kitchen. So a photoelectric gets less nuisance alarms to the products of steam or accidentally cooking something too long.

Cameron: That is, I remember growing up with those very first smoke alarms in my goodness. Every time you open the oven one of those would go off. But, smoke alarms have come a long way. You mentioned two different kinds. Are they easy to identify when you go to Home Depot or Lowes? Or your local hardware store and you're shopping for alarms?

Nancy: Usually the package will tell you that. It will say photo or ion. You also will see some newer packaging where it says this smoke alarm is good for a living room. Or this smoke alarm is good for a bedroom. Or install this smoke alarm closer to the kitchen. So that even on the labeling it gives you some clues about that.

Cameron: [crosstalk 00:06:38]

Nancy: We also see smoke alarms that have long life batteries. So that you don't need to change the battery in an alarm on a regular basis and the smoke alarm and the battery are manufactured to last for ten years. So, when the battery goes out it means that you need a new alarm.

Cameron: You know, and that's a law that will go into an affect here in California in June. Older houses won't have this requirement, no one is going to go into your home and check and make sure that you only have ten year smoke alarms, but smoke alarms that are being sold and new construction all have to have these ten year battery life smoke alarms. Which I think is a great thing because it sounds like they'll be less nuisance alarms. Is that one of the designs for these longer battery life alarms?

Nancy: You know the long life battery doesn't impact that, but the way the alarm detects the smoke. So, that's the photo electric or ionization. So, the photo electric, is less likely to false alarm or provide that nuisance alarm from cooking or from bathroom steam. But, you need both kinds in

your home. You need photo electric and ionization to get the earliest warning to the kinds of fires you might have in your home.

You know, the other thing that's changed is that we now also have really good methods to wake people up who are deaf or hard of hearing. In fact...

Cameron: Let's talk about that. You, your group has gone out and installed thousands of alarms in homes in Oklahoma for people with disabilities. There's a lot of different alarms out there for people who might have mobility issues, who have hearing issues, or vision issues. Can you talk about that?

Nancy: Well, the fundamental principle to understand is a smoke alarm is to wake you up and alert you to a fire that happens at night. Usually if we're awake, then we are aware of a fire. We smell it. We see it. We see the smoke.

Cameron: Right.

Nancy: But, when you're sleeping, and I'm assuming your deaths in Los Angeles happened at night.

So...

Cameron: Nearly all of them, yes.

Nancy: Yes. So, we want that smoke alarm to wake you up and there are new devices that are scientifically proven to be better at waking us up than the current sound that all our smoke alarms make. These devices, they are not smoke alarms. They are alert devices.

In fact, I cited people this device sits by your bed and it listens for your smoke alarm. It is a listening device and it reacts to the sound of the smoke alarm. So, your smoke alarm in your hallway. It goes off, the device sitting by your bed hears that tone. The three beeps and a pause, three beeps and a pause and then it makes a lower frequency sound that is scientifically proven to be better at waking us all up. And, better than that, it has a bed shaker. There's one in my bedroom and I have one of those really thick heavy memory foam mattresses and the vibrator will wake you up. You know it is shaking your bed. So in Oklahoma..

Cameron: These were originally designed for the deaf weren't they?

Nancy: Basically the first design was for people who were hard of hearing. So, people who wore hearing aids and then take them out at night. Because as we lose our hearing we lose it at that higher frequency level first.

Which is the sound normal smoke alarms make. So, these were initially designed for people who are hard of hearing. But, as more sleep studies have been done in research labs they have the results are that that bed shaker is the best way to wake all of us up. So, we don't have to be hard of hearing to have difficulty hearing a smoke alarm. In fact, children are a really good example aren't they?

That's right. We know that the smoke alarms do not wake up children. The younger your children are the less likely that that high pitch frequency sound will wake them up. It's just because children sleep in a much more deeper sleep that REM sleep for longer periods of time.

So, the new methods for families. No matter who your family is. People who you share a living space with. Is when that smoke alarm goes off you need a family fire drill plan. You need an escape plan. And that plan needs to include whose going to get the kids. Whose going to wake them up and help them get out of the house. And-

Cameron: Because there's been a lot of news pieces. I saw one on our local news. And I know that you've seem them in Oklahoma, that say it's the mother's voice or it's an adult voice that is best at waking children up. There's even alarms, they're expensive, but there are even alarms that have the alert happen with a voice. Are these effective? Should we all go out and spend one hundred dollars on a voice alert smoke alarm?

Nancy: Well, I would just say that you have to consider the advantage of marketing. I believe those alarms are really about marketing because the science says that that voice probably is not more effective than waking up children. In fact in a sleep lab, they recorded the mom's voice and an actors voice and the children didn't respond differently to the mom's voice or the actors. In fact the scientist believes, at least all of her work, that it is the lower frequency of the voice. Once again, that lower pitched sound. I also think maybe it's not reasonable that people can spend one hundred dollars on one alarm because for one hundred dollars you could have four or five alarms and really have your home well protected. Then, when the adults wake up, one of them has just got to quickly get the children and get out. And you know,

Cameron: It's about that family escape plan.

Nancy: Yeah. That's right.

Cameron: [crosstalk 00:13:26] it all comes down to that family escape plan.

Nancy: And you know, even today's codes. If you read the national fire alarm code. Even in that code which is all about equipment. It clearly says this

equipment is designed to save your life if you have practiced your family escape plan.

Cameron: Ahhh

Nancy: So that you know when the alarm goes off you know what to do. It's really frightening. You have three minutes to get out. So, when that smoke alarm wakes you up, you have three minutes. That's not very long. So people need to practice that plan and know what to do. Then, we want them in front of their home where every they live. They should be in the front so when the Los Angeles City fire department comes to help them they know that everyone is safe and out of the house.

Cameron: Right, as part of our family escape plan you have to have that safe meeting place near the house so you can flag down those emergency first responders. So, let's go back to your experience installing smoke alarms in homes with disabled residents. You have a lot of experience with this. What are some of the issues that we're seeing. Especially when it comes to older adults who might have mobility issues?

Nancy: Well, once again, early warnings really important so you need plenty of alarms so you have as much time as possible to escape. So, people who move slower, people who use a mobility device really need to think about, maybe I don't have time to go down the hall and out my front door. Maybe I really need a way to get out of my bedroom.

So, some people with disabilities have modified their homes and so perhaps they have a door in their bedroom that goes directly outside. Or, they might want to change their sleeping space and sleep in a room that has very quick access to outside. Because it's really not reasonable to think that someone with a mobility disability is able to go out a window.

Cameron: Yeah.

Nancy: So you really need to think about how do I get out and get out fast. Then I will tell you, we have served people who are not able to transfer themselves in and out of their wheelchair. So, they have an aid that helps them get in bed at night. And then the aid comes the next morning and helps them get in their wheelchair again. For those people the only answer is a home fire sprinkler system.

Cameron: Ahhhh

Nancy: Because if you can't get yourself out of bed and into your mobility device the firefighters can't get there quick enough to help you. So, they should really consider a home fire sprinkler system which will either extinguish

the fire or control it at a level where you are still able to survive within the home.

Nancy: Now, fire sprinkler systems, of course in new construction, are required here in California. Just like they are in most states. Is sprinklering, if that's a word I can use.

Nancy: Yes.

Cameron: Your home. A retrofit? Is that an expensive process?

Nancy: Well, you know what? I'm so happy you asked that. We just made a movie that we will send you and you can put on your website.

Cameron: Oh [crosstalk 00:16:54] perfect.

Nancy: Where we installed we did a retrofit in Natalie's home and Natalie uses a wheelchair and lives on a horse farm in Oklahoma. We did a retrofit in this little movie is about that project. It is more expensive in retrofitting an existing home. But, many people with mobility impairment have already modified their home to be accessible. So, that the doorways are wide enough, their ramps in and out. So this would just be another way to really provide the level of care that they need to be able to remain in their own home. So, it is some more expensive, but not that much. We still say, it's about the price of putting all new carpet in your house. Or maybe remodeling a bathroom.

Cameron: Ahh so it could be part of that retrofit that so many of us have either already done as we age or are looking forward to doing as we age and our population is aging. Yeah, yeah.

Nancy: Exactly. Exactly. And there's great websites with information. The home fire sprinkler coalition has great materials on their website and so you could link to that and then, we'll make sure you get our movie. So your safe LA fans can check out Natalie's retrofit.

Cameron: I'm fascinated to find out about Natalie, not just you know, how she's made sure that sprinklers were in her home to protect her, but I've gotta see this horse ranch. (laugh)

Nancy: (laugh) Yes.

Cameron: You know on that. A really happy note, an optimistic note. I liked to close things out Nancy, what haven't we covered about smoke alarms, the many kinds that are out there, and the best way to have them protect you? Are there elements of our conversation that we need to hit upon again or something we missed?

Nancy: I just want to emphasize again that if you smoke in your house you're putting everyone at higher risk to a fire. So, if you are a smoker, why don't you smoke outside. I just think that's a key message.

Cameron: [crosstalk 00:18:56] We have to be really carefully about that here in Los Angeles since we are especially this winter, an incredibly warm and dry area. We don't encourage people of course to smoke at all. But, we understand that they do and of course we don't want them smoking in the home. But, if they are going to smoke outside let's make sure it's a very controlled environment. That you are not smoking

Nancy: Yes

Cameron: Your dry brush. And that you have places to extinguish your cigarettes that don't involve dry brush and especially in the wild land urban interstate of Los Angeles. That's a great point. Thank you for bringing that up. Because [crosstalk 00:19:36]

Nancy: Well, and I just want to say-

Cameron: Fire fatalities are, you know research has shown that they frequently involve people who smoke.

Nancy: Well, and we are in a very red flag, danger alert in Oklahoma too. Everything is very dry.

Cameron: Oh my.

Nancy: And the wind has been blowing like crazy. A few weeks ago there were three different fires within a mile of my own home.

Cameron: Oh my.

Nancy: So, if you're a smoker. You need to make sure you keep your self safe, your family safe, and your neighbors. I have one more thing I wanted to tell you Cameron.

Cameron: Sure.

Nancy: Where I work at Oklahoma State University, we publish training materials for fire fighters. We're the worlds largest publisher. Right now the city of Los Angeles is training some new recruit fire fighters and their using the book published in Oklahoma called essentials of fire fighting. So, I love that I'm talking to you and your fire fighters are training with books we wrote.

Cameron: I love that too! See there's a true link between us and we're really excited that we finally got a new class of recruits going through the

tower here in Los Angeles. It was a slim five years for us. But, we're really happy to be hiring new excited and energetic fire fighters for our city. We need them. So, Nancy [TREN-S 00:20:59] assistant director of fire protection publications at Oklahoma State University and a wonderful wealth of information about smoke alarms. Thank you so much for joining us for my safe LA fire and life safety podcast. I learned a lot, it was a fascinating conversation. Thanks Nancy!

Nancy: BYE!

Cameron: Make sure to visit us online mysafela.org to find out the latest research about smoke alarms in your home so you can go out there and chose the right ones for your house and put them in the right places. This is [CAM-ER-ON BA-RET 00:21:29] wrapping up another fire and life safety podcast from my safe LA thanks for tuning in.

Announcer: (music)

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