

The next two weeks are the most dangerous time of the year for house fires, according to fire safety experts. From Dec. 23 through Dec. 25, and Dec. 26 through New Year's, the chances of a candlelit fire soar more than 300 percent.

According to the Federal Emergency Management Agency, new homes — built with and stuffed full of synthetic materials — burn up six times faster than older homes built 50 years ago.

“Ultimately [these products] are made of crude oil,” Tom Chapin, vice president of corporate research for Underwriters Lab, said of most modern furniture and construction. “Crude oil makes products easier to make, but in a fire they revert back to their liquid state.”

According to FEMA, fire deaths have been down 2 percent in the past five years, but deaths from accidental fires have gone up 18 percent. Cooking fires are up 16 percent.

As part of a demonstration for ABC News, Underwriters Lab in Chicago constructed a full modern living room in a warehouse, replete with plush couch, wide-screen TV, books and even kids' toys.

“Everything ... eventually everything will burn,” said Chapin. “We are surrounded by many synthetic materials, plastic ... toys. ... A lot of it is in the details of what is in the fabric, the foams, the cushioning. ... This whole room is fuel, and the appearance is deceptive.”

The I-beams that form the superstructure of most newer homes are also susceptible to fire and heat. They tend to be stronger, lighter and more durable than traditional two-by-fours. But because they are composed of pressed wood — essentially woodchips glued together — they weaken at a rate of three times faster than traditional lumber. Those weakened floor beams cause floors to cave in and are among the leading cause of death among firefighters.

“That strength rapidly changes, and we see surprising changes in that structure,” Chapin said. “You wouldn't want to be upstairs in just a little while.”

As part of the demonstration staged for ABC News at the Underwriter's Lab, a fleece blanket was ignited — rather easily by placing it near a candle. Within a minute the fleece caught fire and about a minute later the couch was ablaze, spewing noxious gases. Roughly four minutes after the fleece caught fire, the warehouse room became an inferno, with flames spewing 8 feet out and dozens of feet high. The temperature in the demo area spiked quickly to nearly 1000 degrees.

While synthetic materials have made household construction and products sturdier and cheaper, they're also more flammable. And technology has been slow to respond. Mattresses, however, once the chief killer in fires, seem to be an exception. They are now designed to burn more slowly. Some mattresses ABC News tested at the Underwriters Labs were nearly self-extinguishing.

But the real lifesaver in a fire, said Chapin, is awareness. A smoke detector with working batteries is likely the best bet.

“That's the sound,” he said of the “beep, beep.”