Building fire



Threat assessment: A fire resulting in a large number of casualties is considered unlikely. Compared with the previous assessment, the risk level has not changed.

Building fires can have severe consequences for human life, property, and the functioning of society. Fires are especially dangerous in buildings where many people are present, such as care homes, hospitals, or assembly buildings. Evacuation is made more difficult if people are unfamiliar with the building layout or require assistance, for example due to physical or mental disabilities. Although such institutions have trained staff, the rapid spread of fire and the onset of panic can make evacuation complex. If exits are blocked by smoke, flames, or structural collapse, the risk of fatalities increases. Smoke and toxic gases are the main causes of death in building fires.

Fires in industrial buildings and warehouses can destroy critical infrastructure and cause extensive property damage. If chemicals or hazardous substances ignite in densely populated areas, toxic smoke may be released, endangering large numbers of people and potentially requiring large-scale evacuation. In addition to the immediate risks to life and property, such an incident may cause long-term health hazards and necessitate continuous monitoring of air and water quality. Extinguishing operations may also lead to environmental pollution, for example through contaminated firefighting water and hazardous waste, which can spread beyond the immediate fire zone.

In recent years, the number of building fires has declined. Over the past five years, there has also been a downward trend in the number of injuries, although the number of fatalities has remained relatively stable. Fires in residential buildings make up the majority of all building fires. Although the number of residential building fires has decreased over time, the probability of a fire remains high–around 1.5 residential fires occurred per day in 2024. In other types of buildings, there was an average of 0.5 fires per day in 2024.

THREATS

- The number of fires may rise due to the global trend of increasing fires caused by lithium-ion batteries, which has not yet fully reached Estonia. Lithium-ion batteries are highly flammable, particularly when damaged, overloaded, or improperly maintained. A short circuit or overheating inside a battery may cause thermal runaway, leading to overheating and explosion. Such an event

- can result in an intense fire, as lithium-ion batteries can burn at extremely high temperatures and even explode.

- Between 2017 and 2024, the main causes of residential building fires were electrical installation and appliance failures, as well as negligent use of electrical equipment (26%), heating systems (23%), and smoking (14%). A significant share of fires is caused by human activity.

- In 2024, 3,879 non-residential buildings (industrial, accommodation, public, and other types) were inspected, and fire safety deficiencies were identified in 69% of cases. The majority were assembly buildings: shopping centres, care institutions, catering establishments, restaurants, theatres, cinemas, primary schools, universities and other research institutions, libraries, clubs, etc. According to fire safety inspections carried out between 2021 and 2024, the main deficiencies were related to emergency lighting (17%), fire alarm systems (16%), fire compartment integrity (13%), exits and evacuation routes (11%), other fire safety installations (9–10%), and procedures in case of fire (8%).

GUIDELINES

A fire in a building must be reported immediately by calling the emergency number 112.

- Leave the burning building at once.

- Protect yourself from fire and smoke.

- If you cannot exit the building, make your presence known.

- Help others, but do not endanger your own life or health.

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