

# Lessons Learn



## The dangers of expired fire extinguishers

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On 12 August 2008, a company's full-time firefighters provided on-site fire education to employees. The incident occurred when Shen was holding a dry powder fire extinguisher to do the staff demonstration operation. Suddenly the



fire extinguisher explosion and fragments hit Shen's cheekbone and jaw, which caused serious injuries to the skull and he died in hospital. The dry powder fire extinguisher was found to be expired and had not been changed and serviced for 5 years.

On 4 June 2016, a 14-year-old boy in Harbin found an expired fire extinguisher near his home and fiddled with it, resulting in its explosion and the boy's death.



## What we can learn from the cases?

Fire extinguishers are relatively common fire-fighting equipment that companies, units, and families will purchase. However, failure to maintain and perform functional inspections in time will cause the fire extinguisher to be unusable at emergency times, which will cause the expansion of the fire and even casualties.

# What should we do?

First of all, it is important to select an extinguisher based on the type of :

- **ABC Dry Power:** Suitable for carbon monoxide, petroleum, petroleum and other combustible gas, gasoline, kerosene and other gasoline fuels, and electrical equipment catch fire.
- **CO<sub>2</sub> :** Suitable for fighting incipient fires in electrically charged appliances, valuable equipment, library materials, instruments and meters up to 600 volts, as well as general liquid fires, but not for fighting fires in light metals such as Aluminum, Magnesium, sodium, etc.
- **Foam extinguishers:** Suitable for fighting fires of burning liquids and meltable solids, such as petroleum products, grease and other fires, and also for fires of burning solid organic substances, such as wood, cotton fabrics and other substances

**Second,** it is necessary to maintain and perform functional inspections in time. The expiry date of fire extinguishers has two aspects:

- One being the fire extinguisher barrel, for which has been set to a mandatory **end-of-life limit**;
- On the other hand, the extinguishing agent in a fire extinguisher has its own expiry date, which is what we call **the maintenance life**.

类型 Type	维修年限 Maintenance age	报废年限 End of life
Water-based	3 years from the date of manufacture; every 1 year after the first repair	6 years
Dry powder	5 years from the date of manufacture; every 2 year after the first repair	10 years
Clean gas	5 years from the date of manufacture; every 2 year after the first repair	10 years
Carbon dioxide	5 years from the date of manufacture; every 2 year after the first repair	12 years

***Nothing we do is worth getting hurt for !***