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*“Conceptually, the modern fire service is much like it was in Benjamin Franklin’s era. Fires happen every day and continue to destroy property – firefighters respond and put them out. Civilians get trapped in burning buildings and firefighters go inside to save them. Frequently, rescuer and/or victim breathe toxic smoke and require some level of medical attention. With this in mind, firefighters and emergency medical personnel **must** dedicate themselves to understanding the injuries caused by structure fires and smoke inhalation.”*

*Rob Schnepf, President, CPTC*

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### **Instructor Training Outline**

- I. Smoke: Perceptions, Myths & Misunderstandings**
  - a. Reading smoke vs. breathing smoke**
  - b. Combustion Process**
  - c. Dangers of Fire Smoke**
  - d. Toxic Twins of Smoke Inhalation**
    - i. Cyanide – Mechanism of Action**
      - 1. Cyanide Kills Organs**
    - ii. Carbon Monoxide – Mechanism of Action**
      - 1. CO Kills the Blood**
  - e. Short and Long Term Effects of Smoke Inhalation**
- II. Prevention Practices for Line of Duty Smoke Inhalation**
  - a. Air Management**
    - i. RIT – Phoenix Study**
    - ii. Synchronizing Bottle Pressure**
    - iii. Reilly Emergency Breathing Technique (R-EBT)**
      - 1. Synchronize Bottle Pressures**
      - 2. 4-Day Breathing Technique Test and Results**
  - b. Mayday Air Management**
    - i. Practical Application & Tactics**
    - ii. When to use R-EBT**
  - c. NFPA 1404**
- III. Overhaul & Rehab**
  - a. Metering**
  - b. SCBA usage**
  - c. NFPA 1584**
  - d. What happens at Rehab?**
  - e. Liability without SOG’s**

- IV. **Signs & Symptoms of Cyanide Toxicity**
  - V. **Treatment and Antidotes**
    - a. **ALS**
    - b. **BLS**
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\*CPTC Training Resources:

Cyanide & Modern Day Fires

SMOKE: Perceptions, Myths & Misunderstandings

SMOKE: Cyanide and Carbon Monoxide – the Toxic Twins of Smoke Inhalation

SMOKE: Cyanide and Carbon Monoxide – An Advanced Perspective

\*All publications are found at [www.FireSmoke.org](http://www.FireSmoke.org).

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The Cyanide Poisoning Treatment Coalition (CPTC) is a 501(c)(3) non-profit considered to be *the* international epicenter of SMOKE education for the fire service. Prevention from exposure to hydrogen cyanide in modern day fire smoke, early recognition and appropriate treatment are key components to firefighter survival and healthy retirement.

Cyanide Poisoning Treatment Coalition

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For more information, please visit [www.FireSmoke.org](http://www.FireSmoke.org)