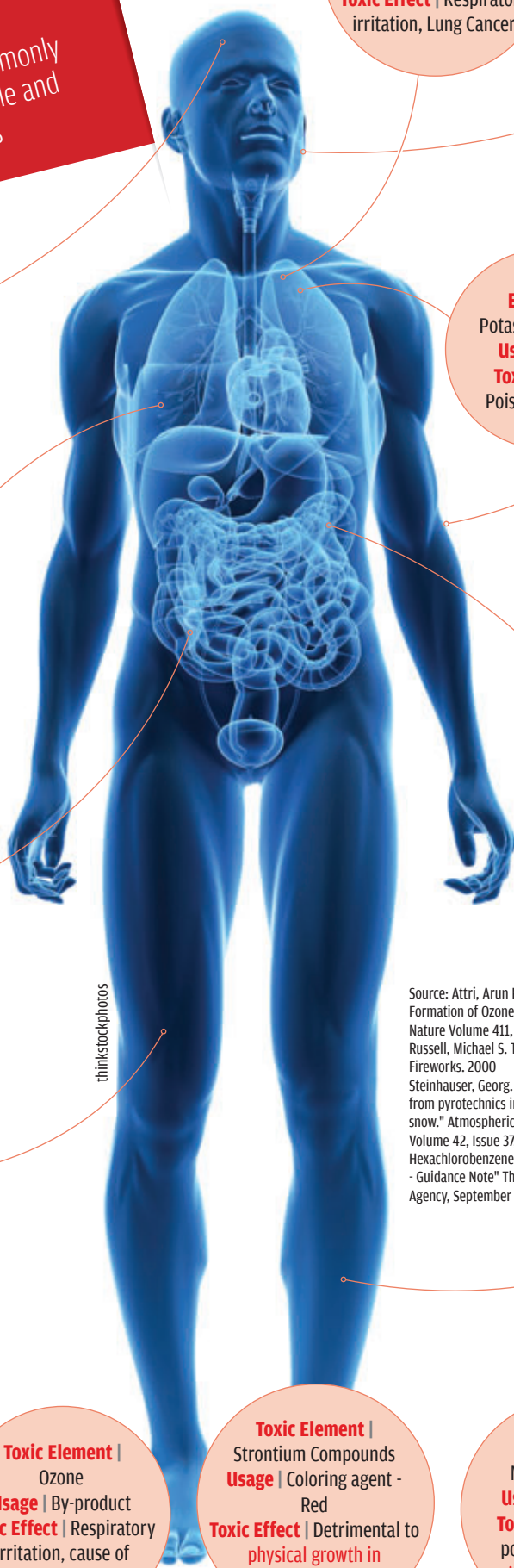


How Fireworks Kill you: Part by Part

Chemical composition of commonly available fireworks, their role and physiological effects



Toxic Element | Aluminum
Usage | Coloring agent - White
Toxic Effect | Skin conditions, accumulation within the body, Cause of Alzheimer's disease

Toxic Element | Nitric Oxide
Usage | By-product
Toxic Effect | Poisonous, reacts with lung tissue

Toxic Element | Cadmium compounds (banned)
Usage | Coloring agent
Toxic Effect | Lung damage, Cancer, Gastrointestinal Problems

Toxic Element | Lithium Compounds
Usage | Coloring agent - Red
Toxic Effect | Poisonous, Respiratory irritation

Toxic Element | Lead Dioxide/Nitrate/Chloride
Usage | Oxidizing agent
Toxic Effect | Poisonous to plants and animals, detrimental to physical and mental growth in infants and unborn children, accumulation within the body

Toxic Element | Ozone
Usage | By-product
Toxic Effect | Respiratory irritation, cause of global warming

Toxic Element | Strontium Compounds
Usage | Coloring agent - Red
Toxic Effect | Detrimental to physical growth in infants, Poisonous

Toxic Element | Nitrogen Dioxide
Usage | By-product
Toxic Effect | Highly poisonous, fatal for infants, source of acid rain

Toxic Element | Sulphur Dioxide
Usage | By-product
Toxic Effect | Poisonous, source of Acid rain

Toxic Element | Antimony Sulphide
Usage | Coloring agent - Glitter effect
Toxic Effect | Respiratory irritation, Lung Cancer

Toxic Element | Perchlorate (Ammonium and Potassium)
Usage | Oxidizing agent
Toxic Effect | Poisonous, contaminated ground and surface water, Lung Cancer, cause of Thyroid complications

Toxic Element | Potassium Nitrate
Usage | Fuel
Toxic Effect | Poisonous, Lung Cancer

Toxic Element | Arsenic Compounds
Usage | Coloring agent
Toxic Effect | Lung cancer, Skin conditions

Toxic Element | Mercury (Chlorides)
Usage | Reducing agent
Toxic Effect | Poisonous, accumulation within the body

Toxic Element | Barium Nitrates
Usage | Coloring agent - Green
Toxic Effect | Poisonous, Respiratory Irritation, Radioactive effects, Gastrointestinal Problems, Muscular Weakness

Toxic Element | Copper compounds
Usage | Coloring agent - Blue
Toxic Effect | Poisonous, accumulation within the body, Cancer, skin conditions, Hormone imbalance

thinkstockphotos

Source: Attri, Arun K. "Microclimate: Formation of Ozone by Fireworks." Nature Volume 411, June 28, 2001
Russell, Michael S. The Chemistry of Fireworks. 2000
Steinhauser, Georg. "Heavy metals from pyrotechnics in New Years Eve snow." Atmospheric Environment Volume 42, Issue 37, December 2008
Hexachlorobenzene (HCB) in Fireworks - Guidance Note" The Environment Agency, September 2010