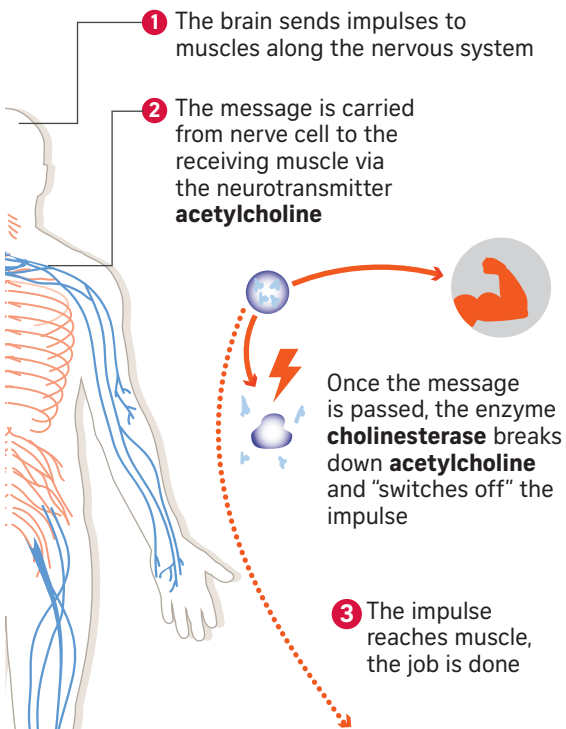


# Poisoning: Murder most foul

## NERVE AGENT: NOVICHOK

Disrupts signalling along the nervous system, in the same way as other nerve agents such as sarin and VX

### UNDER NORMAL CIRCUMSTANCES

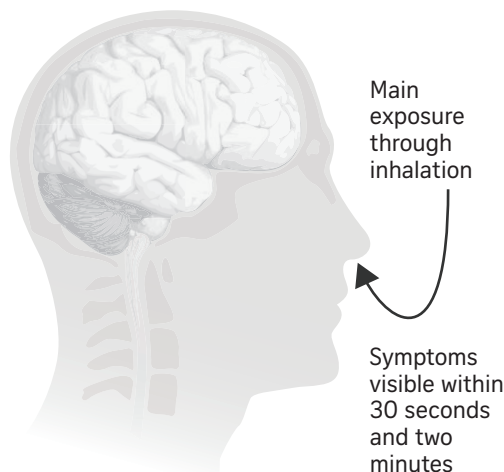


### UNDER A NERVE AGENT ATTACK

- ⚡ Cholinesterase is inhibited
- 🌐 Acetylcholine continues to send impulses to muscles
- The body is thrown into overstimulation, suffers adverse reactions

### WHAT IS NOVICHOK

- Developed by the Soviet Union in the 1970s and 1980s
- Reportedly developed to circumvent the chemical weapons ban by relying on novel chemical structures
- Can be in the form of an ultra-fine powder
- Reported to be five to eight times more lethal than VX



### MAIN SYMPTOMS

- Pinpoint pupils
- Salivation
- Spasms
- Convulsions
- Paralysis
- Heart failure

## FIVE HIGH-PROFILE CASES OF POISONING

### Poison

#### RICIN

### Method

Injection



A built-in mechanism firing a pellet containing the poison

September 1978

### Victim

**Georgi Markov**  
Bulgarian dissident



### What happened?

Believed to have been killed by a poisoned dart filled with ricin fired from an umbrella as he waited for a bus in London.

### Fate

**Died three days later**

#### FENTANYL

Opioid analgesic

Spray or injection\*



Sept 25, 1997

**Khaled Meshaal**  
Head of the Hamas political bureau

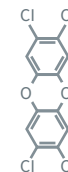


Attacked in Jordan by Israeli secret service agents, who injected a mysterious poison into his ear. Jordan's King Hussein demanded that Israel hand over an antidote.

**Saved by the antidote**

#### DIOXIN

Orally



September 2004

**Viktor Yushchenko**  
Ukrainian opposition candidate



Fell ill in the middle of a presidential campaign against Moscow's preferred candidate. He was elected to office in January 2005.

**Survived, but with scars on his face**

#### POLONIUM 210

Cup of tea



Highly radioactive



November 2006

**Alexander Litvinenko**  
Former Russian spy, opponent of Russian President Vladimir Putin



Took tea with another former Russian agent in London. Started to feel pain on his way home. Moscow refused to extradite the main suspect.

**Died in hospital three weeks later**

**VX** A nerve agent

Substance thrown in the face



Feb 13, 2017

**Kim Jong Nam**  
Half-brother of North Korean leader Kim Jong Un



Attacked at Kuala Lumpur airport by two women who were captured on CCTV shoving something into his face. Suffered violent headache followed by a seizure.

**Died before he reached hospital**

\*According to reports. The exact nature of the poison and the method of administering it were never made public