

How deadly VX nerve agent kills

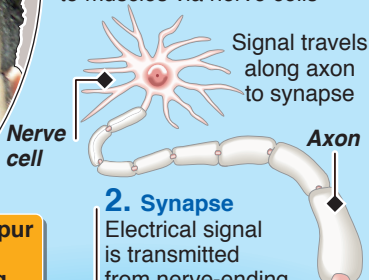
VX nerve agent was used to kill Kim Jong Nam, the half-brother of North Korean leader Kim Jong Un. VX blocks chemical signals transmitted between nerves to muscles, causing paralysis and respiratory failure



Feb 13: CCTV footage from Kuala Lumpur International Airport shows woman grabbing Kim from behind and pushing cloth in his face

1. Muscle movement

Brain sends electrical signal to muscles via nerve cells

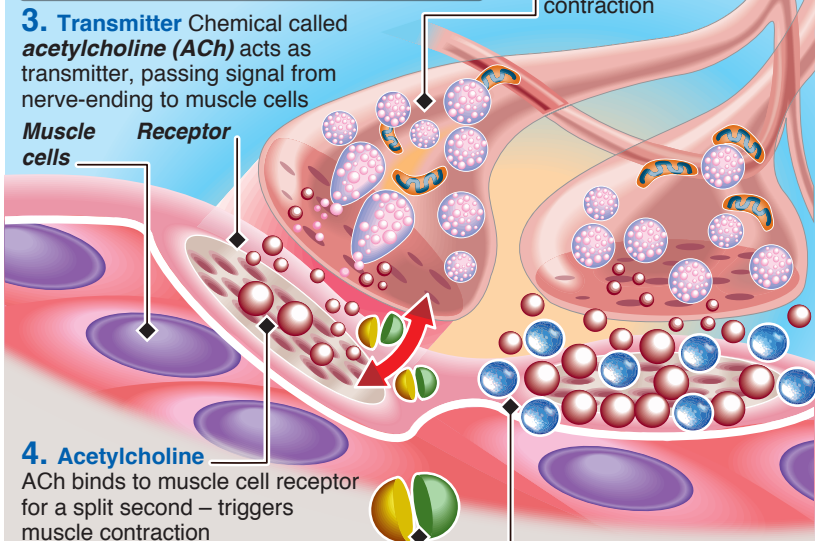


2. Synapse

Electrical signal is transmitted from nerve-ending to stimulate muscle contraction

3. Transmitter Chemical called **acetylcholine (ACh)** acts as transmitter, passing signal from nerve-ending to muscle cells

Muscle cells **Receptor**



4. Acetylcholine

ACh binds to muscle cell receptor for a split second – triggers muscle contraction

5. Hydrolysis ACh is broken down by enzyme, **Acetylcholinesterase (AChE)**, to non-reactive acetic acid and choline, a vitamin. **Action of ACh stops and muscle relaxes**

6. Nerve agent Stops AChE breaking down ACh, allowing it to build up and continually stimulate muscles. **VX causes convulsive spasms, coma and death**