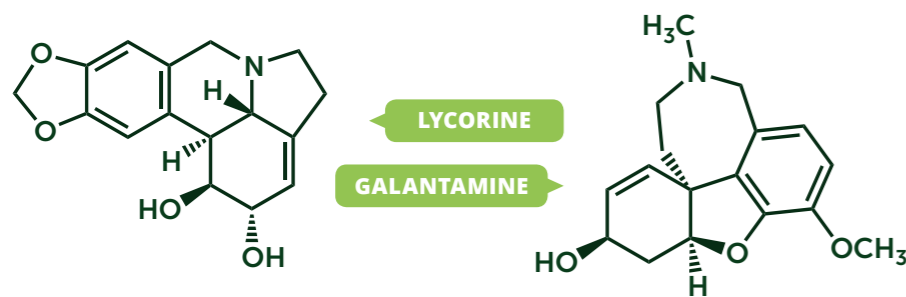


SNOWDROPS, ALZHEIMER'S, & CHEMICAL WARFARE

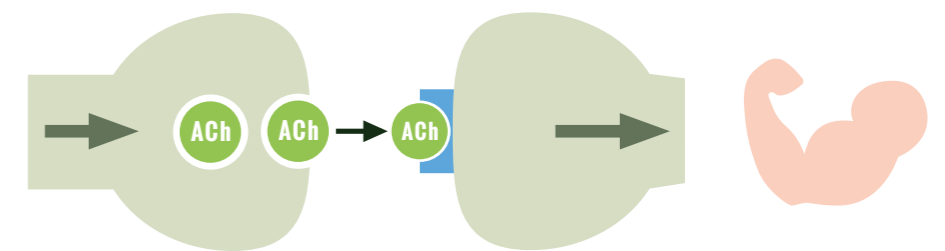
POISONOUS SNOWDROPS

Snowdrops contain poisonous alkaloids, including galantamine and lycorine, particularly in their bulbs. Ingestion can cause vomiting and diarrhoea.

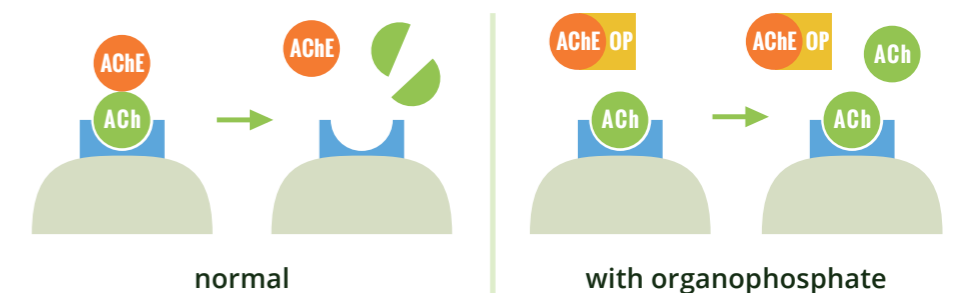


NERVE AGENT POISONING

Acetylcholine (ACh) is released by nerve endings, and controls contraction of muscles when it binds to receptors.



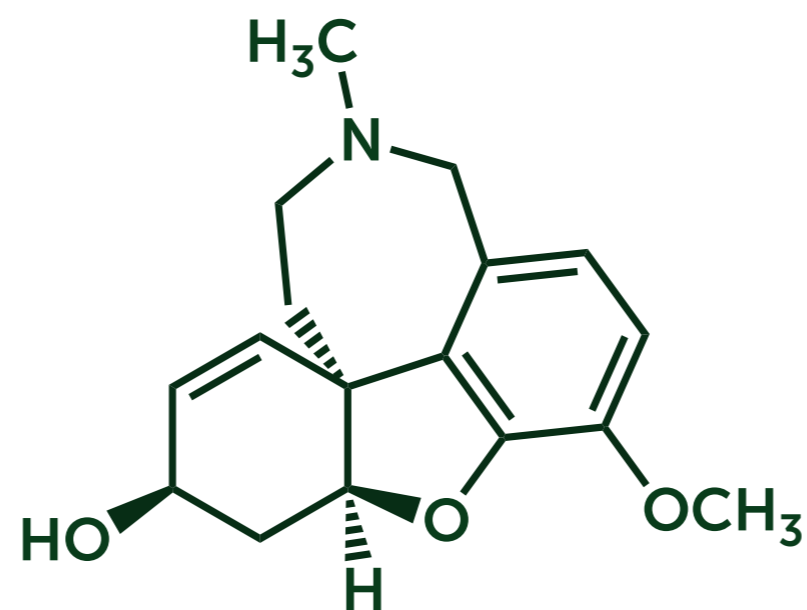
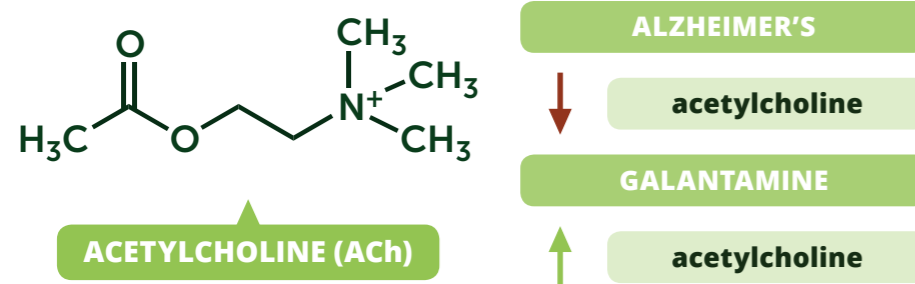
The enzyme acetylcholinesterase (AChE) controls ACh levels by breaking it down. Organophosphate (OP) nerve agents stop this, causing convulsions and death.



Galantamine also latches on to AChE and stops it working, but does so reversibly. This blocks the nerve agents from binding to it irreversibly and prevents poisoning.

TREATING ALZHEIMER'S

Falling levels of the neurotransmitter acetylcholine are linked to symptoms of Alzheimer's disease. Galantamine stops an enzyme (acetylcholinesterase) breaking down acetylcholine, increasing availability.



GALANTAMINE

