## The History of Bioterrorism: When Did It All Begin?

You've likely heard of the post - 9/11 anthrax mail attacks, one of the most infamous modern-day acts of bioterrorism. However, the use of biological agents as weapons dates back much further in history. Have you ever wondered when bioterrorism truly began?

Bioterrorism involves the intentional release of biological agents such as Botulinum toxin, Plague, Smallpox, and Ebola to cause widespread disease and death among humans, plants, and animals. Throughout history, emperors, governments, and terrorist groups have weaponised pathogens to weaken or eliminate their enemies.

Solon: 600 BC

The earliest recorded act of bioterrorism dates back to 600 BC when the Greek statesman Solon played a crucial role in the Greek siege of the city of Krissa. He ordered soldiers to poison the city's local water supply with hellebore, a potent laxative herb. While hellebore was used medicinally, excessive consumption can lead to severe nausea, vomiting, abdominal pain, and, in extreme cases, bradycardia and hypotension. The mass poisoning debilitated Krissa's defenders, making them incapable of protecting the city. Seizing the opportunity, Solon and his forces successfully attacked and captured Krissa.

Tartars: 1346 AD

This incident of biological warfare is believed to have contributed to the spread of the Plague across Europe. The Plague, caused by the bacterium *Yersinia pestis*, is transmitted by fleas on infected rats and results in fever, swollen lymph nodes, internal bleeding, and often death within days.

In 1346 AD, during the siege of Caffa, Tartar forces fighting under the Golden Horde catapulted the bodies of soldiers who had died from the Plague over the city walls. This act inadvertently contaminated Caffa, leading to an outbreak among its inhabitants. Many residents fled to Europe by sea, unknowingly carrying the disease with them, accelerating its spread across the continent. Meanwhile, the weakened city succumbed to the Tartars.



Napoleon: 1797 AD

During the War of the First Coalition in 1797, Napoleon Bonaparte utilised biological warfare against Austrian forces defending Mantua, Italy. To weaken the Austrian troops, he ordered the intentional flooding of plains surrounding the city, creating large swamps ideal for breeding malaria-carrying mosquitoes.

Malaria, caused by *Plasmodium* parasites transmitted through mosquito bites, leads to symptoms such as high fever, severe sweating, chills, and, in extreme cases, organ failure or death. As malaria spread through Mantua, Austrian soldiers became too ill to fight effectively. Eventually, they surrendered, marking another significant victory for Napoleon and his troops.

## Iran-Iraq War: 1980-1988 AD

One of the most notorious modern uses of biological and chemical weapons occurred during the Iran-Iraq War under Saddam Hussein's regime. The Iraqi government deployed mustard gas, sarin, and tabun against Iranian forces and Kurdish ethnic groups, violating international warfare conventions.

Mustard gas, a biochemical agent, causes severe skin burns, painful blisters, lung damage, and even blindness. Exposure increases cancer risk due to its DNA-binding properties, which can lead to mutations and uncontrolled cell growth. Sarin and tabun, both highly lethal nerve agents, attack the nervous system, resulting in convulsions, paralysis, respiratory failure, and death.

Iraq conducted over 30 targeted chemical attacks, killing thousands of Iranian soldiers and Kurdish civilians. The widespread use of these weapons ultimately played a key role in international efforts to take action against Saddam Hussein's regime.

These are just a few examples of bioterrorism throughout history, demonstrating the devastating impact of biological warfare. However, they have also provided valuable insights into bioweapons, helping scientists develop methods for identification, containment, and treatment. As science advances, understanding the history of bioterrorism remains crucial to mitigating future threats and protecting global populations.



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## **CITATIONS**

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