



London, United Kingdom

892,760

est. injured after one nuclear detonation (100kt) over the Palace of Westminster

FOR EVERY HOSPITAL BED



FOR EACH DOCTOR



The United Kingdom possesses about [225 nuclear warheads](#)

A nuclear war would realistically involve many nuclear weapons targeting many cities in a country, making for an enormous humanitarian catastrophe basically impossible for any health care system to deal with. But even if just one average-sized nuclear weapon (100 kiloton) were to be detonated over London today, the immediate health impact would be catastrophic. An estimated [258,680 people](#) could die immediately and another [892,760](#) could be injured. That’s about one in eight people in London’s 2020 population of around 9.3 million people.

At the reported COVID peak through 2021 on 30 December 2021, [269,521 new COVID cases](#) were reported in one day in all of the United Kingdom. After a nuclear attack, about three times more people would need medical attention immediately in just one city.

Immediate Health Impacts



380 m
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A fireball would extend out about [380 meters](#) in every direction from the detonation point. If the bomb were dropped over the Palace of Westminster, not only would the British parliament be engulfed in a nuclear fireball and instantly vaporised, but also the Westminster Abbey, Parliament Square, Big Ben, Westminster Bridge, as well as St Thomas’ Hospital.



1.1 km
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To a distance of [a little over 1 km](#) from the detonation point the explosion would likely generate a fatal dose of ionising radiation. This zone would include 10 Downing Street, Trafalgar Square, and the Ministry of Defence. Several hospitals lie in this zone, such as Gordon Hospital and Evelina London Children’s Hospital, as well as Westminster Ambulance station.



3.26 km
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Within [3.26 km](#) in every direction from the center, there would be blast damage, with most residential buildings collapsing, and local fires starting from the destruction. Everyone in this zone would be injured, and many would die. In London, this circle includes the Buckingham Palace, much of Hyde Park, St Paul's Cathedral, Piccadilly Circus, King's College, and many museums and other tourist attractions such as the British Museum and the Barbican. Several more hospitals are within this range of the blast, such as University College Hospital, Royal London Hospital, St Bartholomew's Hospital, Guy's and St Thomas' NHS Hospital and London Bridge hospital. Thousands of people will have severe injuries and burns.



4.38 km
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Within [4.38 km](#), people would suffer third-degree burns on all exposed skin. Technology may be disrupted by an electromagnetic pulse. This area includes the Tower of London, Regent's Park, King's Cross/St Pancras and Shoreditch. At least 15 hospitals lie within this zone.



9.18 km
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A full [9km](#) from the center of the blast, glass windows would shatter, causing additional injuries to anyone in the vicinity and some technology may be disrupted by an electromagnetic pulse.

Healthcare Response Capacity

How could London respond to a health crisis of this proportion? London has around [26,209 doctors and around 76,035 nurses and midwives](#). They would be as affected by the nuclear explosion as everyone else. In the case that one out of eight of the population dies or is injured from the nuclear explosion, that leaves about 22,966 doctors and 66,625 nurses and midwives to treat about 892,760 injured people. That means every doctor in London would be responsible for treating about 39 people, many with severe injuries, simultaneously.

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What about hospital beds? There are around [134 hospitals in London](#), but many of them, the ones closest to the center of the city, would be destroyed by the blast. Thousands of people will have severe injuries and burns. In England, there are about [5,900 ICU beds](#) and [five burn centers with around 16 burn beds](#). In London, there are only two burn beds. But as many hospitals would be destroyed or damaged by the explosion, it would not be possible to use all of these beds.

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The UK has [246 hospital beds per 100,000 people](#), thus around 22,888 hospital beds in London. Many beds would of course already be occupied and some destroyed by the blast. The remaining available beds would be woefully inadequate to care for nearly 900,000 injured people. There are about 185,129 hospital beds in all of the UK, although of course many of them would already be in use to treat patients suffering from other ailments.

The UK may prepare to use nuclear weapons but its health care infrastructure is not and cannot be prepared for the humanitarian catastrophe that would result from the use of just one nuclear weapon.