

## Topic Page: [Chernobyl](#)

Definition: **Chernobyl** from *Merriam-Webster's Collegiate(R) Dictionary*

 [pronunciation](#)

 [pronunciation](#)

site N Ukraine of town abandoned after 1986 nuclear accident



Summary Article: **Chernobyl**

From *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*

Image from: [An abandoned collective farm near Chernobyl,... in Encyclopedia of Community](#)

Town in northern Ukraine, 100 km/62 mi north of Kiev; site of a former nuclear power station. The town is now abandoned. On 26 April 1986, two huge explosions occurred at the plant, destroying a central reactor and breaching its 1,000-tonne roof. In the immediate vicinity of Chernobyl, 31 people died (all firemen or workers at the plant) and 135,000 were permanently evacuated. It has been estimated that there will be an additional 20,000–40,000 deaths from cancer over 60 years; 600,000 people are officially classified as at risk.

According to World Health Organization (WHO) figures from 1995, the incidence of thyroid cancer in children increased 200-fold in Belarus as a result of fallout from the disaster. The last remaining nuclear reactor at Chernobyl was shut down in December 2000.

The Chernobyl disaster occurred as the result of an unauthorized test being conducted, in which the reactor was run while its cooling system was inoperative. The resulting clouds of radioactive isotopes spread all over Europe, from Ireland to Greece. A total of 9 tonnes/8.9 tons of radioactive material were released into the atmosphere, 90 times the amount produced by the Hiroshima A-bomb. In all, 5 million people are thought to have been exposed to radioactivity following the blast. In Ukraine, Belarus, and Russia more than 500,000 people were displaced from affected towns and villages and thousands of square miles of land were contaminated.

**Concern over similar reactors** Another Chernobyl reactor was closed in 1991 after a fire. The International Atomic Agency inspected the Chernobyl plant in March 1994 and found numerous safety deficiencies in the two reactors still operating. The steel and concrete sarcophagus that seals the remains of the exploded reactor is crumbling. Negotiations began in 1995 to close the Chernobyl plant and build a gas-fired power station with the aid of the European Union and the Group of Seven (G7), although another 13 Chernobyl-style reactors continued to operate in the former Soviet Union – ten in Russia, one in the Ukraine, and two in Lithuania. Despite safety improvements 1986–96, Western experts still maintained that all of these reactors represented a much greater safety risk than other types.

**Continuing effects of the disaster** According to Ukrainian health ministry officials, 125,000 people have died as a result of the accident, and more deaths are expected. Tens of thousands are said to be suffering from crippling radiation-induced diseases. Some Western scientists have disputed these figures, claiming that fewer than 100 deaths could be directly attributed to the disaster. In 1996 the children of parents exposed to the radioactive fallout in Belarus were found to have double the number

of DNA mutations of comparable British children. US researchers studying voles around the reactor in 1995 found mutation rates at much higher levels than in voles from outside the 'hot zone'. In nine animals within the restricted 30-km/19-mi zone there were 46 mutations in just one gene, compared with only four mutations in animals outside the zone.

Together with the fallout from nuclear weapons testing conducted in the past, the Chernobyl explosion contributes 0.4% to the annual average radiation dose in the UK, with the greatest effects on average concentration occurring in Scotland and Northern Ireland.

Attempts to make the land around Chernobyl safe to farm again included scraping off the top 3–4 cm/1–1.5 in of topsoil and then burying this 45 cm/18 in below without disturbing the intervening layer. But by 1999 radioactivity was still measurable in much of the exclusion zone (an area the size of Luxembourg), and food grown in the area was still not fit for consumption.

### weblinks

Chernobyl: Ten Years On

#### **APA**

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Chernobyl. (2018). In Helicon (Ed.), *The Hutchinson unabridged encyclopedia with atlas and weather guide*. Abington, UK: Helicon. Retrieved from <https://search.credoreference.com/content/topic/chernobyl>

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## APA

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## Chicago

"Chernobyl." In *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*, edited by Helicon. Helicon, 2018. <https://search.credoreference.com/content/topic/chernobyl>

## Harvard

Chernobyl. (2018). In Helicon (Ed.), *The Hutchinson unabridged encyclopedia with atlas and weather guide*. [Online]. Abington: Helicon. Available from: <https://search.credoreference.com/content/topic/chernobyl> [Accessed 18 September 2019].

## MLA

"Chernobyl." *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*, edited by Helicon, 2018. *Credo Reference*, <https://search.credoreference.com/content/topic/chernobyl>. Accessed 18 Sep. 2019.