



# THE HEALTH IMPACTS OF NUCLEAR WEAPONS IN OREGON



## Oregon Physicians for Social Responsibility

Oregon Physicians for Social Responsibility mobilizes health professionals and public health advocates to prevent the gravest threats to human health.

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## NUCLEAR WEAPONS: AN EXISTENTIAL THREAT

**We are currently living in a time with the greatest risk of nuclear war.** Today, the US nuclear stockpile alone contains more than 2,400 megatons of destructive capability, the equivalent to 159,000 Hiroshima-sized bombs (9). Globally, there are approximately 13,850 nuclear weapons (12), some with 10 to 30 times the destructive power of the bomb dropped on Hiroshima. Nuclear weapons have already left their mark on our region through the Hanford Nuclear Reservation, the most contaminated site in the Western hemisphere. It is the largest, most expensive, and most complex environmental remediation project in the world.

Even if used elsewhere, these weapons could impact the well-being of Oregonians through radioactive fallout, nuclear winter, destabilization of economies, food systems, and other means. Were a nuclear weapon to be used anywhere near Oregon, the health impacts would be devastating.

**Nuclear weapons are morally unacceptable weapons of indiscriminate mass destruction. They pose an immediate threat to the health, safety, security, and survival of humans across this planet. We work on the local, state, national, and international levels to promote nuclear disarmament worldwide. Nuclear weapons abolition will promote a more safe, just, and healthy world now and for generations to come.**

To this end, we recently developed and advocated for passage of Oregon Senate Joint Memorial 5 (SJM 5), which puts our state on record as supporting the UN Treaty on the Prohibition of Nuclear Weapons, and also urges Congress to lead a global effort to reduce the threat of nuclear war. It passed in June 2019. We are also members of ICAN (International Campaign to Abolish Nuclear Weapons), which received the 2017 Nobel Peace Prize. Even so, more work needs to be done.

## QUICK TAKE

### THE HEALTH IMPACTS OF NUCLEAR WEAPONS:

- Death
- Radiation sickness (depending on the severity, symptoms include cell death, internal bleeding, infections, and mortality)
- Malnutrition and famine as a result of nuclear winter (i.e., destabilization of climate)
- Cancer
- Psychological stress
- Contamination of food and water sources
- Increase in risk for communicable disease
- Genetic mutations in offspring



"Utter Destruction in Hiroshima" (12)

# IN FOCUS | HOW NUCLEAR WEAPONS MAY IMPACT OREGONIANS:

## DIRECT IMPACTS

**IN THE BOMBING OF HIROSHIMA, "NEAR THE HYPOCENTER OF THE EXPLOSION, THE HEAT RADIATION THREW PERMANENT SHADOWS OF THE PEOPLE AND OBJECTS ONTO SURFACES LIKE SIDEWALKS THAT HAD BEEN BEHIND THEM" (17).**

- If close to the blast site of a nuclear explosion, victims would be vaporized instantaneously. Those further away would experience severe burns, flash blindness, ruptured organs, fractured skulls, and radiation sickness (12). Long term, the risk of contracting cancer is greatly increased.
- In the aftermath of a bombing, the "effects of radiation on human beings would cause suffering and death decades after the initial explosion. Those who survived would continue to be exposed to lower dose levels during and after the blast, and consequently, would be prone to develop cancer, cardiac dysfunction, immune dysfunction and many other medical problems. Fetal death and birth defects would increase. Detonation of nuclear weapons damages the earth's ozone protection...causing skin cancer and other human health problems" (12).
- The Hanford Nuclear Reservation in Eastern Washington, which produced materials for nuclear weapons during WWII and throughout the Cold War, continues to pollute the surrounding area and underground water systems, as well as the neighboring Columbia River. Many Hanford workers and "Downwinders" continue to suffer from radiation-related illnesses.
- The ATI metals refinery in Millersburg, OR, reprocessed depleted uranium in the 1970's for the US military. This substance increases the piercing ability of ammunition, and has been used (and is used) by the US military in overseas conflicts. Depleted uranium remains on-site, as does waste from processing it; a radiation hazard still exists there. Workers at the plant have "at least as likely as not" (4) developed cancers from on-the-job exposure.

## INDIRECT IMPACTS

**"THE PRIMARY MECHANISMS FOR HUMAN FATALITIES WOULD LIKELY NOT BE FROM BLAST EFFECTS, NOT FROM THERMAL RADIATION BURNS, AND NOT FROM IONIZING RADIATION, BUT, RATHER, FROM MASS STARVATION" (5).**

- To elaborate, "Smoke from the fires started by nuclear weapons...would...spread globally, lasting for years. The resulting cool, dark, dry conditions at Earth's surface would prevent crop growth for at least one growing season, resulting in mass starvation over most of the world...More people could die in the noncombatant countries than in those where the bombs were dropped because of these indirect effects," (16) which are collectively termed "nuclear winter".
- Accordingly, this would destabilize our global economy, creating massive economic and societal uncertainty, damaging livelihoods, and undermining physical and psychological health.
- Fallout (radioactive materials that can be carried long distances by wind) could reach Oregon and our contaminate air, land, and water with radiation.
- Currently, at least \$1.2 trillion is slated to be used to upgrade the US' nuclear weapons arsenal over the next decade. This money should be put towards improving the health of Oregonians through, for example, universal health care.

## WHAT YOU CAN DO

Join Oregon PSR to advance policies that prioritize human health over the production of nuclear weapons.  
 Support legislation designed to reduce the US nuclear arsenal and cut spending on nuclear weapons.  
 Visit [dontbankonthebomb.com](http://dontbankonthebomb.com) to check if your bank supports the nuclear weapons industry using your dollars.  
 Attend events throughout the year, including our annual Hiroshima and Nagasaki memorial event.  
 Learn more about the health impacts of nuclear weapons at [oregonpsr.org](http://oregonpsr.org).

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