

PROTECTION LEVELS¹

| Protect Level | Surv % ² Nuclear | Surv % Bio | Surv % Chem | Equipment | Protection | Limitations |
|---------------|-----------------------------|------------|-------------|------------------------------------|--|--|
| 1 | <1% | <1% | <1% | Potassium Iodide Tablets | Prevents absorption of radioactive iodine into thymus gland. | <ol style="list-style-type: none"> 1. Must be taken 24 hours in advance. 2. Provides no protection from fallout 3. Provides no protection from chemical or biological agents. 4. Numerous serious side effects |
| 2 | <1% | <1% | <1% | Duct Tape and plastic | The most basic type of protection. Sealing off doors and windows <u>may</u> provide protection for a couple of hours. | <ol style="list-style-type: none"> 1. House may not be air tight 2. Wind creates negative pressure in house, drawing in contamination. |
| 3 | <1% | 90% | 90% | Gas Mask with NBC Filters | Provides safe breathing to reach a safe place. | <ol style="list-style-type: none"> 1. Gas masks can only be worn for a couple of hours. 2. Gas masks do not work well for children who do not understand how critical the gas mask is. 3. Men with beards can not get a safe fit against their face. 4. Not useful against radiation. 5. Not useful against skin agents |
| 4 | <1% | 94% | 94% | BC Air Filtration System | Safe atmosphere in chemical and biological warfare environments for at least one week but must not depend on local electrical power. | <ol style="list-style-type: none"> 1. Does not provide shielding against radiation. 2. Room may overheat in warm climates |
| 5 | 94% | 99% | 99% | NBC Underground Fallout Shelter | Provides isolated atmosphere and shielding for gamma radiation from nuclear, chemical, biological warfare agents. Underground shelter provides stable thermal atmosphere. Minimum of 30 days life support without local electricity. | <ol style="list-style-type: none"> 1. Price 2. Requires land |
| 6 | 99% | 99% | 99% | NBC Underground Blast Shelter | Provides isolated stable atmosphere and shielding for gamma and neutron radiation from nuclear, chemical, biological warfare agents. Should provide at least 30 days life support without local electricity. | <ol style="list-style-type: none"> 1. Price 2. Requires land |
| 7 | 99% | 99% | 99% | NBC HEMP Underground Blast Shelter | Same as Level 6 with HEMP resistant generator and fuel, food, and water for one year operation. | <ol style="list-style-type: none"> 1. Price 2. Requires land 3. Extreme engineering |

¹ PRINCIPLES OF PROTECTION, The U.S. Handbook of NBC Weapons Fundamentals and Shelter Engineering Design Standards, Sixth ed. 2010, Walton McCarthy, The American Civil Defense Association, 489 pp.

² Probability of survival without damage to shelter. The normal chance of survival in peacetime as a result of traffic accidents, homicides, cancer, suicide, general accidents, and accidents in the home is approximately 99.2%.

