

A POCKET GUIDE TO
NUCLEAR WAR SURVIVAL
& PREPAREDNESS
IN THE AGE OF TR*MP



The threat of global thermonuclear war never really ended, but it is more apparent now than any time in the last 30 years. The US nuclear arsenal is in the hands of an unhinged fascist asshole and North Korea has the bomb. People who lived through the brinksmanship of the 1960s-80s find themselves again considering the real threat of watching their cities burn and new generations are living with that fear for the first time.

It is not the goal of this guide to see doomsday through rose-colored glasses. Nuclear war would kill millions. We must work for peace and disarmament as if the whole future of humankind depends on it, because it does -- and we won't tell you there's any way to guarantee surviving a nuclear holocaust, because there isn't.

That said, contrary to prevailing strains of apathy and fatalism, a nuclear war would leave many, many survivors. Whether you would be one of them would depend on a myriad of unpredictable factors, from local weather conditions to bomb yield and altitude of detonation. Meanwhile,

fallout dissipates, radiation sickness is not certain death, and there's a lot that anyone can do before, during, and after a nuclear attack to limit your exposure to radiation, and to help yourself and those around you survive and heal.

If you ever find yourself living through a nuclear war, please make it your first step to reserve judgment as to whether or not you're doomed. Work from the assumption that you're going to survive. Because if you're doomed, there's nothing more to worry about -- but if you're not, you can help yourself. You can help others. People you love will need you. Together you can endure and rebuild the world -- and if you can, you must.

With that in mind, what follows is an amateur crash course in nuclear war survival and preparedness, based on information culled from old civil defense manuals and other sources. It aims to be small enough to carry with you, rather than exhaustive. Always learn more and work for peace and disarmament.

--Anonymous, August 2017

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PART 1: UNDERSTANDING NUCLEAR WEAPONS

a. BOMB TYPES AND YIELDS

The bombs dropped on Hiroshima and Nagasaki (killing 100 and 60 thousand civilians respectively) were nuclear fission bombs. These split heavy atoms in a chain reaction, releasing energy equivalent to 15,000-20,000 tons of the conventional explosive TNT.

In the 1950s, nuclear weapons advanced from fission to fusion, the same process that powers the sun. Fusion releases energy by combining light atoms in a chain reaction. Some fusion bombs have yields in the high megaton range, i.e. many thousands of times as powerful (in terms of raw energy released). However, most fusion bombs in today's arsenals are in the high kiloton or low megaton range, 10-100 times as powerful as the bomb dropped on Hiroshima.

Nuclear weapons unleash two kinds of hell: first the fire & blast damage -- then the radioactive fallout.

1b. UNDERSTANDING FALLOUT

Fallout is radioactive dust. It's created whenever the fireball of a nuclear explosion intersects solid matter, irradiates it with neutrons, and then scatters it into the air as microscopic particles.

Fallout emits alpha, beta, and gamma radiation. The radioactivity of fallout decreases exponentially over time, eventually rendering it harmless. Because fallout does not emit neutron radiation, it cannot make other things radioactive, except by getting all over them.

Fallout can travel dozens or hundreds of miles from the epicenter of the blast (ground zero) and will not be evenly distributed: especially if the blast occurs during wet weather, fallout will be concentrated into 'hot spots' where it will be unusually intense, outside of which it won't be as bad. The clearer the weather, the farther fallout will travel before it falls, and the weaker it will be when it does.

1c. TYPES OF RADIATION

Radiation is decaying atoms. Nuclear weapons release four flavors:

ALPHA RADIATION

What it is: naked helium nuclei
Range in air: ~1 inch
Stopped by: outermost layer of skin
Hazards: not super dangerous

BETA RADIATION

What it is: stray electrons
Range in air: ~10 feet
Stopped by: walls, thick stuff
Hazards: internal, external burns

GAMMA RADIATION

What it is: high-energy photons
Range in air: very, very far
Stopped by: nothing completely
Hazards: acute radiation syndrome

NEUTRON RADIATION

What it is: neutrons
(Only exists in the immediate time and area of blast. Only kind of radiation that makes other matter radioactive.)

PART 2: WHAT YOU CAN DO TO PREPARE

Anything you would do to prepare for natural disasters (major storms, earthquakes, etc.) will help you prepare for nuclear attack. Get a good first aid kit and learn how to use it. Talk through plans with friends and family so you all know where you'll all be. Additionally:

2a. SUPPLIES CHECKLIST

- Wound and burn care and antiseptics
- Garbage bags (esp. big and thick)
- Disposable plastic rain ponchos
- Disposable dust masks
- Swim goggles
- Shower cap
- Rubber dish gloves
- Fully enclosed rain boots
- Moist towelettes
- Potassium iodide tablets
- Non-perishable food stores
- Water storage (as much as possible)
- A handheld AM/FM radio, stored in a metal pot with a full metal lid
- Games, books, distractions

(You can get a Geiger counter if you want, but this guide assumes such equipment is unattainably expensive and complicated for most folks. The best practice is to assume that anything that might be radioactive, is.)

2b. HOW MUCH DO I NEED?

Most civil defense manuals advise you to plan for 2-3 weeks of sheltering in place, in case of severe fallout.

WATER is the most critical resource. One human body needs, at an absolute minimum, 0.25 gallons per day -- or 3.5 gallons per person for a two-week period. It's ideal to store much more than that, both to facilitate healing, for hygiene and cooking, and to have extra for anyone else who needs it.

As a rule, plan to store as much as you possibly can in any clean receptacle you can find, either before or immediately after the first blast.

SOME PLACES YOU CAN STORE A LOT OF WATER:

- Bottles, jugs, jars
- Utility buckets
- Plastic storage bins
- A clean garbage bag enclosed in a pillowcase or sack for strength
- Even a garbage bag in a hole in the ground outside -- so long as it's fully covered.
- Water heaters and toilet flush tanks both contain potable water.

FOOD: You could probably survive for two weeks without eating at all, if you had to. A better plan would be to ration 1200 calories per day per adult human. You could get that from two cups of rice plus two cans of beans, or go fancier.

EVERYTHING ELSE on the list is optional on a more-the-merrier basis. Most of it is for protecting yourself from fallout if you have to go outside. If you can't get it, you can make do with what you have.

2c. IDENTIFYING POSSIBLE SHELTERS

At the height of the Cold War there were designated fallout shelters everywhere, but many of those have been demolished or are no longer publicly accessible. There are no current records or maps for them. However, decent shelter can be found in many places. Learn to recognize them, and keep a list in the back of this booklet.

A GOLDEN RULE:

Protection from fallout =
[distance from fallout] x
[density of stuff between you and it] x
[time you're able to stay put there]

WHAT MAKES A FALLOUT SHELTER:

GREAT: a big building

GREAT: concrete or brick walls

GREAT: toward the center of the floor

GREAT: below ground level

GREAT: as much distance and density of matter as possible between you and anywhere fallout could accumulate.

GREAT: right where you are

OKAY: above ground level

OKAY: somewhere you can get to ASAP

BAD: on the top floor

BAD: on the ground floor

BAD: within view of adjacent rooftops

BAD: anywhere exposed to the elements

BAD: anywhere more than 20 minutes
away from where you are at the time of
the first blast.

EXAMPLES OF GREAT SHELTERS: the center of
the bottom of a large, fully enclosed
underground parking garage, underneath a
supermarket. The basement of a large
school or apartment complex.

OKAY SHELTERS: the centermost point of a
house basement. The center of the second
story of a big 3-story building.

BAD SHELTERS: an attic. The ground floor
of a small building. An open-air parking
structure. A floor of an office building
in line with the rooftops of other nearby
buildings.

Identify the best places close to where you live, where you work, or other places you might be. Ideally it should be somewhere you could stay for two straight weeks if you had to. Keep a mental or drawn-out map of these places.

2c. IMPROVING SHELTER

If you're in a house basement or other 'decent' shelter, you can significantly improve the radiation protection it offers by piling up a mass of stuff between you and anywhere fallout might accumulate. Before a nuclear attack, you can improve your shelter by piling up dirt against the outer walls of a house. Before and/or after an attack, you can improve your shelter by piling books, clothes, supplies, etc. up against the inside walls of the house. Anything.

Remember: since fallout does not emit neutron radiation, any matter you use as a radiation barrier can be safely handled later. You can safely use your food and water supplies as a radiation barrier (as long as they don't get fallout on them).

PART 3: DURING AND AFTER A NUCLEAR STRIKE

3a. ELECTROMAGNETIC PULSE (E.M.P.)

In the event of a large-scale nuclear strike, before any bombs detonate near you, there's a good chance of EMP -- an invisible shockwave which is harmless to people but which will fry or disable power grids, electronics, communication systems, etc., over a massive area.

You can protect electronics (such as an AM/FM radio) from EMP by storing them in a metal pot with a full-metal lid -- but if phone networks go out, don't count on reaching anyone that way.

3b. INITIAL BLAST

The light and heat of a nuclear blast will reach you long before the noise or force. DO NOT look at the light! Keep to whatever shadows you can find.

If you're close enough to a blast to hear it within 20-30 seconds of seeing it, you will probably just die instantly.

Therefore, if you see the light, take shelter ASAP as you would during an earthquake and assume a 1-2 minute wait before any sound or blast force reaches you. Don't move from that spot or get caught walking around outside until at least after the shockwave has passed -- and expect there may be more blasts.

3c. TRAVEL TO SHELTER

After the initial blast, you -may- have up to 40 minutes to reach long-term shelter before the first fallout begins to reach you. However, in the event of a large nuclear strike, be warned that more warheads may already be on their way and may also detonate during that time.

If there's a more ideal shelter within 30 minutes travel time, weigh the benefits

of getting there against the risk of exposing yourself to subsequent blasts. If you have a choice, travel by the most sheltered/shady route available.

If your ideal shelter is more than 30 minutes from where you are, don't even think about it. The first fallout after the blast will be the most dangerous.

3d. HUNKER DOWN

If you have empty water storage, fill up as much as you can in the first 40 minutes after the blast. Make use of anything clean (see list, page 6).

Improve your shelter any way you reasonably can, e.g. by stacking books, clothes, supplies, etc. up against the walls to serve as radiation barriers. Gather things you might want or need and bring them to the specific spot you plan to shelter.

(Optionally, if you have a course of potassium iodide pills, start taking them. They mitigate the risk of radiation-induced thyroid cancer later.)

After that, stay put there. Do whatever you can to stay as calm as possible under the circumstances and pass the time.

3e. WAITING OUT THE FALLOUT

Fallout decays exponentially and eventually becomes relatively harmless. Conversely, the very first fallout is by far the most dangerous. The sooner it is after an attack, the more crucial it is to stay inside and protected.

If you had no choice but to shelter in a place with no food, water, or something else you need, stay there as long as you can stand to do so before you go out looking for supplies or better shelter.

Every hour you wait, the fallout will become measurably less radioactive.

This decay follows the seven ten rule: for every factor of seven in time, fallout decays by a factor of ten. Therefore:

- 7 hours after the blast, fallout is 1/10th as radioactive as it was at first.
- $7^2 = 49$ hours (2 days) after the blast, fallout is 1/100th as radioactive.
- $7^3 = 343$ hours (2 weeks) after the blast, fallout is 1/1,000th as radioactive.
- $7^4 = 2401$ hours (100 days) after the blast, it's down to 1/10,000th

The radioactivity of fallout will never reach absolute zero, but it will eventually become more or less trivial.

3f. VENTURING OUTSIDE

There is no gear that can shield against the radiation fallout emits -- but you can limit your radiation exposure by:

- (A) Being outside for as short a time as possible (if at all), and
- (B) Wearing gear that keeps fallout from sticking to you, so that once you go back inside your radiation exposure stops.

A fallout protection suit might therefore look like an emergency rain poncho, rain boots, dish gloves, swim goggles, and a paper dusk mask. Cover your hair with a shower cap. If you have a beard, consider shaving. Anything that might catch fallout particles and hold them close to you is a risk you can minimize.

While outside, move quickly, but don't stir up dust/ash that might get on you.

Remember: you can safely handle anything that has been exposed to fallout so long as it does not have fallout *on* it -- up to and including food items. If you were to find a loaf of bread sitting out in the fallout, you could cut off (and safely dispose of) the crust and eat the rest. Any food or water stored in sealed containers, and anything that can be peeled, should be safe to consume.

The more time passes, the more time you can safely spend outside -- but when traveling in a potential fallout zone remember that there will be 'hot spots': radiation will be more intense in some areas and less so in others.

Unless you have a Geiger counter you'll have to rely on an outside authority, or pure necessity, to tell you when it's a good idea be outside without protection. But eventually that time will come.

3g. RE-ENTERING SHELTER

Take all possible steps to keep your shelter clean and fallout-free! Take off anything that might have caught fallout particles (i.e. all that gear, and ideally any clothes worn underneath as well) and store them in a sealed plastic bag as far from people as you can. Reuse what you must and discard what you can.

If you have enough clean water to take a shower, do it, with plenty of soap and shampoo -- but DO NOT use conditioner! It can bind fallout particles to your hair. (And make sure the waste water from your shower ends up far from people.)

If you can't take a shower, moist towelettes will do. Gently wipe your eyelids and ears, and blow your nose. Wipe off any exposed skin. Dispose of the towelettes in a sealed plastic bag. Store that bag far from people.

3g. HEALTH EFFECTS OF RADIATION

There are two main health hazards from radiation after a nuclear explosion:

- (A) Beta burns: similar to sunburns, caused by exposure to fallout at close range / getting it on you
- (B) Acute radiation syndrome: full-body sickness caused by accumulated exposure to gamma radiation at any range

Avoid beta burns by limiting exposure to fallout. Make sure it doesn't get on your body, or anything you keep close to you.

Avoid acute radiation syndrome by finding the best shelter you can. Keep as much distance and mass between you and fallout as you can, for as long as you can.

If you can't access medical care, for either beta burns or A.R.S., the best

treatment is rest and fluids. Survivors of Hiroshima fared much better if they stayed still for even the first 8 hours after initial exposure to radiation.

The symptoms of A.R.S. include nausea, vomiting, fatigue, and headache -- and, in more extreme cases, diarrhea and fever. HOWEVER, note that all of these symptoms can also be caused by extreme stress! If you start having symptoms, reserve judgment. Don't despair. You are inevitably under a great deal of stress.

Remember that acute radiation syndrome is not contagious, and anyone suffering from it is not radioactive. Help affected people any way you can without fear. And remember that acute radiation syndrome is not necessarily fatal. It is possible to make a complete recovery with time.

GOOD LUCK. BE SAFE. THE WORLD THAT RISES FROM THESE ASHES WILL NEED YOU IN IT.

NOTES:



D.I.Y. NUCLEAR WAR SURVIVAL:

WHAT TO EXPECT

WHERE TO GO

HOW TO PREPARE

HOW TO ENDURE

A QUICK & DIRTY POCKET GUIDE

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