

Ten for Survival



SURVIVE NUCLEAR ATTACK

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DEPARTMENT OF DEFENSE

Office of Civil Defense

May 1959

Reprinted September 1961

AXIOM FOR SURVIVAL

If this country is attacked with nuclear weapons you can protect yourself. But, first, you must know what to do and how to do it.

FACE THESE FACTS:

A 20-megaton explosion on the surface of the earth can kill most people and destroy most buildings within a 5-mile radius of ground zero, a total of about 80 square miles.

The most likely targets are big cities—industrial areas—military centers.

However, you are not safe merely because you live far away from likely targets.

Distance protects you against heat and blast, but not against radioactive fallout which goes anywhere and can kill or injure the unprotected and the unprepared.

Without protection from fallout, millions would die who otherwise would survive. Put more positively, millions of Americans could save their lives by learning what to do—and doing it.

TEN 10 for Survival

This booklet was prepared in connection with the educational television series, "Ten For Survival." The series, consisting of 10 programs, was produced for the Office of Civil and Defense Mobilization by the National Broadcasting Co., in association with the Educational Television and Radio Center. It describes the possible effects of major disasters—particularly nuclear attack.

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KNOWLEDGE IS YOUR KEY TO SURVIVAL

To protect yourself at the time of a nuclear explosion, you must understand NOW the hazards you would face.

You probably will be warned in advance by siren or radio that attack is coming. The Air Force, with its far-flung detection network, and the Office of Civil Defense are working together to do everything possible to warn you.

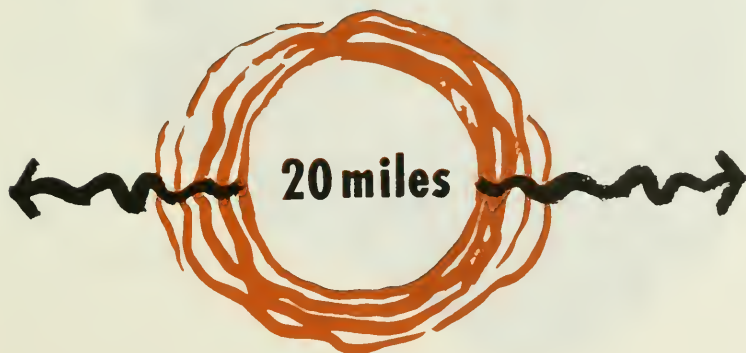
But surprise attack could come. You must know what to do if it does.

YOU SHOULD KNOW THE THREE MAIN DESTRUCTIVE EFFECTS OF A NUCLEAR EXPLOSION

HEAT, BLAST, FALLOUT

HEAT

Dangers facing you: The bomb produces heat of several million degrees—a good deal hotter than the temperature on the surface of the sun. This heat travels at the speed of light. A megaton explosion could kill an unshielded man 8 miles from ground zero. A 20-megaton explosion could kill an unshielded man 20 miles away. It could blister and cripple the bodies of unsheltered people well beyond that.



What you should do: Beyond the 5-mile radius of total destruction, but still within range of the immediate killing power of the bomb, you would have split seconds to save your life.

You would have to act with instinctive speed to take cover behind whatever was at hand.



BLAST

Dangers facing you: The shock waves of blast from a nuclear explosion travel about 900 miles an hour—nine times the force of a major hurricane! Blast could destroy a brick building $9\frac{1}{2}$ miles from ground zero.

What you should do: If caught unprotected beyond the 5-mile circle of total destruction you could save your life with an instantaneous dive for cover.

Cover is the same for both heat and blast.

In open country it might be a ditch or culvert. Lie face down and stay there until the heat and blast waves have passed.

In the city it might be a wall, a building, or even a truck.

Indoors it would be the floor (behind furniture or as close to an inside wall as possible).



THE MAIN IDEA—

GET BEHIND SOMETHING



FALLOUT

Dangers facing you:
The millions of tons of pulverized earth and debris sucked up as high as 15 miles by the fireball of a large nuclear explosion become a deadly radioactive fallout cloud. It spreads its lethal radioactivity over wide areas, hundreds of miles downwind from ground zero. Fallout radioactivity cannot be detected by taste or touch. Sometimes, but not always, the fine ash or dust carrying the radioactivity is visible. It fills the atmosphere, the air you breathe, and attacks the vital organs of your body with invisible radiation.

PROTECTION FROM FALLOUT

The best protection against fallout radiation is a fallout shelter. Every family should have one. It can be an area in a building of such heavy construction as to afford the required shielding or a shelter designed to be a unit of a family dwelling.

Several types of family fallout shelters are described and illustrated in a booklet entitled "The Family Fallout Shelter", MP-15. Copies may be obtained from your local civil defense director.

Basement Concrete Block Shelter, designed as a do-it-yourself project. Solid concrete blocks are used to build it.



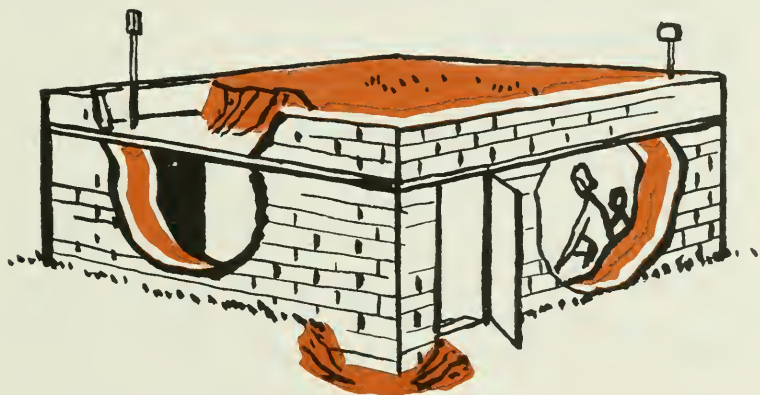
Underground Concrete Shelters, one designed as a basement shelter in new housing, and one as an outdoor, underground shelter.



THESE SHELTERS WILL PROVIDE



Preshaped Metal Shelter, built by placing pre-shaped corrugated metal sections on or close to the surface of the ground and mounding them over with earth.



Aboveground Double-Wall Shelter, which is a double-walled, concrete block structure with the walls built nearly 2 feet apart. The space between the walls is filled with earth. A roof is built of either poured concrete or wood and covered with earth.

YOU WITH EXCELLENT PROTECTION

If you are caught by fallout away from a shelter or have no shelter in your home, the best place to be in order of the protection you would get would be:

1. In a corner of a basement.
2. In the center of the basement.

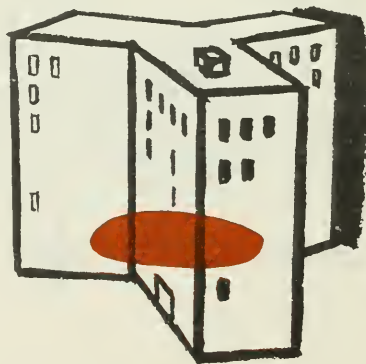
(Sandbags covering basement windows will increase protection.)

3. First floor inside hallway of a two-story house.
4. Inside hallway of a one-story house.

SHELTER IN APARTMENT BUILDINGS

Apartment buildings generally provide more fallout protection than houses.

The central area of the ground floor of an apartment building provides good shelter. The subsurface basement of a heavy apartment building might give as much fallout protection as a concrete block shelter in the basement of a house.



If your fallout shelter is to be an apartment house basement, you should survey it in advance to assure that there is ventilation, water, lighting, and the other requirements of a prepared shelter. You would probably have time to carry your family supplies from your apartment to the basement after an attack warning before any fallout arrives. If not, a quick trip from the basement to your apartment to get supplies is not likely to present any significant additional hazard.

The Department of Defense has initiated a nationwide survey to identify, mark, and stock potential fallout shelter space in existing structures. In addition, some Federal buildings will be used to determine the best methods of modifying existing structures to provide usable fallout shelter space, and dual-purpose fallout shelters will be included in certain new Federal buildings.

HOW WILL YOU KNOW IF YOU ARE IN A FALLOUT AREA?

Radiation from fallout cannot be detected by sight, taste, smell, hearing, or touch. If an unusual amount of dust is accumulating outside your house following a nuclear explosion you should assume it is radioactive. However, you should not depend on such an uncertain method of detection.



CONELRAD will be your main source of information on fallout and protective measures you might take. This is the national system of emergency broadcasting that goes into effect when the Commander of the North American Air Defense Command determines an air attack is imminent or under way.

This is why you should have a battery-powered portable radio in your shelter. When CONELRAD goes into effect all broadcasting stations except CONELRAD stations go off the air. The CONELRAD stations broadcast on two frequencies, 640 or 1240 on your dial.

Over these CONELRAD channels your local civil defense officials will give you warning of fallout and let you know when you can safely leave shelter.

In rural sections or other localities where CONELRAD may not be operative, local officials may use different methods of communication. This is another reason why everyone should know his local survival plans and his part in them.

HOW LONG WILL YOU HAVE TO STAY IN SHELTER?

Radiation from fallout decreases with time. Also, it is not possible to know in advance what the amount of fallout or dose rate would be in any given place. Therefore, the time you would have to remain in shelter can only be determined accurately by measuring the dose-rate of the fallout in your immediate vicinity.

Radiological instruments—frequently termed “citizens’ instruments”—are available commercially at relatively low cost. In an emergency, they will

enable you to determine the dose-rate around you and to locate the most protected portion of your home after fallout arrives. However, you should not leave your shelter permanently or evacuate on the basis of reading your meter. Without instructions from local or State officials you might blunder into even heavier radiation than that at your shelter.

Where widespread and heavy fallout occurs local officials might decide to evacuate people to safer areas. You should keep tuned to CONELRAD for advice and guidance.

IF YOU THINK YOU HAVE FALLOUT ON YOU

Without a meter you cannot be sure that the dust or fallout on you is radioactive. If you are sure or suspect that it is radioactive, remove your outer garments outside the shelter and leave them there. Wash the uncovered parts of your body and throw the water outside the shelter.

If any unpackaged food has been exposed to fallout, decontaminate it by peeling and washing. Do not discard the food. Food may be in very short supply; and even though contaminated, eating it would be better than starving.



DISCARD
OUTER GARMENTS



WASH EXPOSED
PARTS OF BODY



WASH AND PEEL
UNPACKAGED
FOOD

PREPARE NOW FOR LIVING IN A SHELTER

Every family should have a minimum 14-day supply of food and water, since except for very brief departures from your shelter you could be pinned down longer than 2 weeks.

However, as in all planning for emergency, it is best to plan against the worst. It is possible that in instances local officials could not supply all of the people in their jurisdictions. There also might be instances of severe fallout from recurring attack that would keep people in their shelters for an extended period. A good plan would be to have 2 weeks' or more supply of food on hand at all times.

You should know:

1. Where to find safe water.
2. How to turn off water service valve.
3. How to purify water.
4. What foods to store and how to prepare them.
5. What foods are unsafe.
6. How to dispose of garbage.
7. How to dispose of human wastes.
8. How to make soil bags.
9. What to do with frozen foods.

BEFORE DISASTER STRIKES YOU SHOULD HAVE ON HAND:

1. Flashlight and extra batteries.
2. Battery-powered portable radio and extra batteries.
3. First-aid kits.
4. Stored water or other liquid—7 gallons per person for 2 weeks. Water in hot water tanks, in toilet tanks, and ice cubes in a refrigerator can be used as an additional source.
5. A 14-day supply of food, paper plates, and napkins.



6. Cooking and eating utensils, measuring cup, can and bottle openers, pocket knife, and matches.
7. Special foods for babies and invalids.

8. Large garbage can (20 gallons).
9. Smaller can for human wastes (10 gallons).
10. Covered pail for bathroom purposes.
11. Toilet tissue, paper towels, personal sanitary supplies, disposable diapers, and soap.
12. One blanket per person, rubber sheeting, and special equipment for the sick.
13. Grocery bags, and a week's accumulation of newspapers for wrapping garbage.
14. Two pints of household chlorine, and 1 quart of 5 percent DDT.
15. Wrench, screwdriver, and shovel; axe and crowbar to free yourself from debris, if necessary, or to help others to do so.
16. Waterproof gloves.

YOU'LL BE ON YOUR OWN

Impure water and unsafe food can make you sick. Garbage and human wastes can spread disease if not wrapped and placed in closed containers. They should be disposed of as soon as it is safe to leave your shelter. Public services which now guard your family's health may be knocked out temporarily by a nuclear attack. Sewer mains may be broken. Garbage collection may not exist. Fresh food and milk will not be delivered. You will be on your own until these facilities can be restored.

YOU MUST HAVE SAFE FOODS

Precooked foods, baby foods, fruit juices, canned vegetables and soups, and canned meat and fish are easily stored (the cans are easily washed off if they become contaminated with fallout). Packages of cereals and dried foods, raisins, and chocolate are quick sources of energy.

Avoid salty foods. They will increase your consumption of drinking water.

Avoid frozen food; it spoils when defrosted.

Store small-size, one-meal-only cans of foods, since the means of preserving leftovers may not be available.

Do not eat any produce from your home garden without first decontaminating it.

Any fruit or vegetable that can be peeled (bananas, citrus fruits, potatoes) is safe to eat after it has been wiped off and peeled.

Any container that has held water used for washing off fallout must be rinsed and wiped off before being used again.

RADIATION SICKNESS IS NOT CONTAGIOUS

If you have a case of radiation sickness in your shelter remember:

An exposed person is not himself radioactive, nor do the things he touches become radioactive. He cannot affect another person—unless he has radioactive fallout on his skin or clothing. This can be removed by washing the skin and discarding the clothing.



KNOWLEDGE IS SURVIVAL POWER

More people could be in danger from fallout in a nuclear attack than from blast or heat.

They must have shelters and know how to live in them if they are to survive.

THE TIME TO ACT IS NOW

Further information on survival can be obtained from the following OCD publications.

Facts About Fallout Protection, L-18.

Fire Fighting for Householders, PB-4, revised May 1958.

First Aid: Emergency Kit; Emergency Action, L-12, revised April 1958.

Home Protection Exercises, MP-1, revised September 1958.

The Family Fallout Shelter, MP-15.

These publications can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., at nominal cost.

