



YOUR FAMILY SURVIVAL PLAN



PA-578

Federal Extension Service, U S. Department of Agriculture
in cooperation with the Office of Civil Defense, Department
of Defense.

A KIND OF INSURANCE

How well are you prepared to meet an emergency?

Over the years families take various steps for protection and security. You carry fire insurance on your home, auto insurance, health insurance. Why? Just in case something happens. These protective steps fit into your plan for living.

Your family also needs a protective plan for survival—another kind of insurance “just in case” of fallout from nuclear attack. Your survival plan will help:

assure you and your family better protection in case of a national disaster or emergency.

provide for an adequate supply of food, water, and medical supplies.

inform each family member of his responsibilities in an emergency.

provide for continued study and training.

The time to act is now!

BE INFORMED

At least one member of every family should be trained in emergency health care. Knowledge of medical self-help and first aid is good at any time. Also, know your community and school disaster plans.

SHELTER IS A MUST . . .

You need to have a shelter and go to it at the first warning of fallout from nuclear attack. The shelter needs walls and ceiling heavy enough to protect you from the radiation that comes with fallout. You may be able to improve the shielding of a protected area you are already using for something else.

Space

In any fallout shelter you need *at least* 10 square feet of floor space per person. More is desirable. No shelter should have less than 25 square feet of floor space.

Shielding

You need a mass of material between you and the fallout to shield you from radiation. You'd be safer in a below-ground basement because there you'd get radiation only from above. In an above-ground frame house you might get half the radiation you'd get outside, while in the basement you might get only one-tenth.

Any kind of material will help, but the heavier it is, the better it will shield you. Dirt that weighs 100 pounds per cubic foot, for instance, will give about three times more protection than wood weighing around 38 pounds per cubic foot.

Decide the amount of protection per equal thickness you need. Then decide what shielding materials you will use in the walls and on top of your shelter to give you that protection.

To Use Tables

Most Civil Defense-approved community shelters aim at a “protection factor” of 100 or better.*

You, too, can plan to cut radiation so that you would get a 100 “protection factor” in your shelter. You could

* The term “protection factor” expresses how many times less radiation a person would get in a protected place than if the place were unprotected. At a protection factor of 100, for instance, he would get 100 times less.

plan for even more. In *Table A* you can see examples of different wall and ceiling weights that, combined, would give various amounts of protection. *Table A* gives an idea of how much weight per square foot of wall space or ceiling you need. It was computed for an above-ground shelter 10 x 12 x 8 feet high, with radiation coming from both top and side walls.

Above ground you usually need more weight on the sides than on the top, because the side walls are exposed to fallout from the larger ground area around the building. If your shelter area is below ground, you will need to figure only how to increase the weight of shielding overhead. (See *Table B*.)

Table C gives the weights of some common materials that might be used for shielding. Information in these two tables will help you make out your own shelter plan, below.

CHECK THESE, TOO

You also need to consider other important factors in your shelter plan.

Ventilation—You need air in your shelter. Where the shelter is part of a larger area, like the corner of a basement, you need at least 20 square inches of air vents per person. Crevices around walls and the shielded doorway would normally provide this much. In a small, well-sealed shelter you need an air intake with a blower.

Doors and Windows should be shielded with a thickness of heavy material. A thick baffle wall at the door allows you to walk around it to enter the shelter, but keeps out radiation, since radiation travels mostly in a straight line.

Drainage—Plan to keep the shelter dry. In low areas you need some kind of drain that will take water out.

See Office of Civil Defense Bulletin H-7, *Family Shelter Designs*, for “how-to” details on shielding, drainage, and ventilation.

TABLE A—ABOVE-GROUND SHELTER

For a protection factor of 50 you could use		For protection factor of 100		For protection factor of 500	
WALLS	+ CEILING	WALLS + CEILING	WALLS + CEILING	WALLS + CEILING	WALLS + CEILING
Weight needed per sq. ft. of wall space (in pounds)	Weight needed per sq. ft. of wall space (in pounds)				
175	175	200	300	287	262
187	137	212	187	300	237
200	125	225	162	312	225
212	112	237	150	325	212
237	100	250	137		
		287	125		

TABLE B—BELOW-GROUND SHELTER

Protection Factor	Ceiling weight you need per square foot
50	90
100	120
500	190

TABLE C—MATERIALS

Material	Pounds per sq. ft. for each 1" of thickness
Lead	59.2
Steel	40.9
Reinforced concrete	12.6
Stone masonry	12.0
Brick	9.2
Sand and gravel	9.2
Soil	8.4
Plaster	8.0
Standard concrete blocks	7.1
Water	5.2
Shelved corn	3.9
Wood	3.2
Baled hay	1.3
Loose hay33

YOUR FIRST NEED . . . WATER

In an emergency WATER is essential. Water systems might go out of operation. You need to store at least 4 gallons of drinking water per person for your family, and more would be better.

You can store water in clean, covered plastic or other nonrusting containers. Inspect these every few months.

OTHER SOURCES OF SAFE

DRINKING WATER IN

EMERGENCY ARE:

- your home water system—pipes, pressure or storage tanks, water heater, flush tanks of toilets.
- your refrigerator or freezer, ice cubes, melted frost.
- properly sealed and covered wells (have a means for getting water from well if electricity is out.)
- springs (tested and approved by authorities) provided the spring and outlet are covered and protected from surface run-off.

CLOTHING

Clothing helps protect the body from burns from particles of fallout. A discardable outer garment is important if you should have to be outdoors briefly.

But there is no textile or clothing type manufactured that can protect against the gamma radiation that is the principal fallout danger.

FOOD FOR YOUR SHELTER

Store a two weeks' supply of food in your shelter.

INCLUDE FOODS THAT:

- your family likes.
- require little or no water.
- can be eaten without heating.
(Remember that gas and electricity might be cut off and that cooking would be kept to a minimum. Unless there is adequate ventilation and removal of fumes, you must avoid flame cooking.)
- are put up in one-meal sizes.
- take minimum storage space.
- can be rotated in your home food supply.
(fruit juices every 3-6 months, prepared foods every 6 months to 1 year.)
- have a long "shelf-life."

You should:

- keep them in a dry place at temperatures 70° or less.
 - store them safely (paper packages put into metal cans, etc.)
 - provide baby food or special diets if needed.
- The checklists on the reverse side can help you:
- determine your family's needs—water—food—medical supplies.
 - provide for adequate storage.

SUPPLIES AND EQUIPMENT

Carefully select equipment and supplies for shelter living. If your family is one that sometimes takes camping trips, you may already have a number of the suggested items. You might store them in your shelter area.

Tools are essential to keep things repaired and in working order. After a nuclear disaster, you might require tools such as a shovel for digging your way out or for burying wastes. A crowbar, saw, and axe could help you escape from damaged buildings.

MAKE YOUR OWN SHELTER PLAN

Name of family _____ Number in Family _____

Space: The safest place in our home is _____

This area has a total floor space of _____ square feet.

The space needed for _____ persons is _____ square feet.

We can add to this sheltered space by _____

Shielding: Here is what we need for shielding for this area:

	Example from Table A		YOUR PLAN	
	"Protection factor" of 100			
1. Protection we plan for.	Walls	Ceiling	Walls	Ceiling
2. Pounds per sq. ft. of material needed (Table A).	287	125		
3. Pounds per sq. ft. now around shelter. (See Table C for weight of common materials.)	30	10		
4. Pounds per sq. ft. we need to add. (Subtract (3) from (2).)	257	115		
5. Total thickness of selected materials we need. (Use weight given in Table C.) Example here uses reinforced concrete.	20½"	9"		

OTHER COMBINATIONS . . .

Other combinations of wall and overhead weights could give the same protection as in the example at the left.

This gives you a rough idea of how to increase protection for an *above-ground* shelter. Use Table B to figure overhead shielding needed for a below-ground shelter.

Now check to see how adequate your shelter area is in regard to ventilation, drainage, and shielding of doors and windows. After studying OCD bulletin H-7, *Family Shelter Designs*, decide how you can plan to add more protection to your shelter. Here's a checklist:

VENTILATION adequate ☐ inadequate ☐

Our Plans: _____

DRAINAGE adequate ☐ inadequate ☐

Our Plans: _____

DOORS shielded ☐ not shielded ☐

Our Plans: _____

WINDOWS shielded ☐ not shielded ☐

Our Plans: _____

Check what your family has now . . .

Note what you'd need for emergency survival . . .

SURVIVAL . . .

(For two weeks)

Item	Need for ____ Persons	Amount Now Stored	Date Stored	Replacement Date and Additional Plans
1. WATER				
a. minimum, 4 gallons per person				
b.				
2. BEVERAGES				
a. fruit and vegetable juices				
b. powdered coffee, tea, milk				
c. canned milk				
d.				
3. PREPARED FOODS				
a. canned hash				
b. spaghetti dinners, etc.				
c.				
4. VEGETABLES, FRUITS				
a.				
b.				
c.				
d.				
5. CRACKERS—BREADSTUFFS (unsalted)—packed in tin				
a.				
6. SPREADS FOR CRACKERS				
a. peanut butter				
b. cheese spreads				
c. meat spreads				
d.				
7. SWEETS				
a. hard candy				
b.				
8. BABY FOOD— SPECIAL DIETS				
a.				
b.				
c.				

Check What You Have. What You Need.

[illegible]

TRAINING

Training courses are available to help you learn more about your food, medical, and shelter needs. Your local county agent or civil defense officer will tell you where to enroll in them.

Enroll in one of these courses	Who will take course	Date when completed
1. Medical Self-help		
2. First Aid		
3. Civil Defense—Adult Education Program		
4. Others		

HEALTH

Time to check and update . . .

Immunization	Family members	Date
1. Tetanus		
2. Smallpox		
3. Polio (For ages up to 45)		
4. Diphtheria, Whooping Cough (children)		

BASIC REFERENCES

Get these booklets from your Extension agent or civil defense officers . . .

FAMILY SHELTER DESIGNS, Office of Civil Defense, H-7.

FALLOUT PROTECTION—WHAT TO KNOW AND DO ABOUT NUCLEAR ATTACK, Office of Civil Defense, H-6.

FAMILY FOOD STOCKPILE FOR SURVIVAL, Home and Garden Bulletin No. 77—USDA.

FALLOUT AND YOUR FARM FOOD, PA-515, FES, USDA.

DEFENSE AGAINST RADIOACTIVE FALLOUT ON THE FARM, Farmer's Bulletin 2107, USDA.

RURAL FIRE DEFENSE, PA-517, FES, USDA

Some other things to do . . .

1. Remove fire hazards around house _____
2. Collect vital papers _____
3. Plan to protect valuables _____