

## SAFETY

# If Atom Bomb Hits . . . . .

Getting victims to safety is the first rule in case of atomic attack. The time-honored first aid rules of yesterday have been modified.

By JANE STAFFORD

*This is the first of a series of articles on the new first aid for atom bomb casualties.*

► FOR defense against an atomic war, the nation needs 20,000,000 lay persons trained in first aid. And those 20,000,000 will need special training in new things to do to save atom bomb victims. Some of these things will be so modified as to seem almost the reverse of what you do normally in giving first aid to a highway accident victim or an injured workman in your plant.

You remember from the Red Cross first aid course you took during the last war that the first thing you were taught was to keep an injured person lying down.

"DON'T let an injured person get up. 'DO keep an injured person lying down,'" read the instructions in the American Red Cross First Aid Textbook, with pictures to emphasize this important lesson.

## Reversal in Rules

But if you are going to give first aid to victims of an A or H bomb, you may not always be able to follow these time-honored directions. Your first job may be to get the injured person to safety, regardless of whether he is fainting or has broken bones. If fire is creeping close, if the walls of nearby buildings are about to fall, and if you are alone with half a dozen badly injured persons, you will not be able to "splint them where they lie."

In case of an atom bomb explosion it may be that the most life-saving thing you can do will be to rescue the injured from areas of hazard. It may be possible to give topnotch first aid care to many victims and this should be done wherever possible. But where there are many cases of badly injured and equipment is lacking, many of your carefully learned first aid lessons may need to be changed.

In the first aid course, for example, you learned to be careful about every minor cut and scratch, cleansing them thoroughly and perhaps applying a sterile dressing to guard against infection. In the event of an atom bomb attack, some of your patients may be covered with tiny cuts and scratches from flying glass. But in a critical situation, you will pay no attention to these, and if that is all the injury the person has, you will send him on his way home or to shelter, telling him to see his doctor a few days later when things have quieted down. The reason: There will be too many seriously injured needing your care.

You learned in the Red Cross first aid class to see what injuries the patient had and to care for the most serious ones first. You will be doing the same thing in case of an atom bomb attack, but on a much larger scale and with one important new feature added.

## Geography in First Aid

This new feature may well be included in the first lesson you will get in first aid courses revised and expanded to meet the needs of atomic war. This first lesson may be on the geography of an atom bomb attack as it relates to first aid to the injured. Through it you will learn to think of your home town in terms of circles or concentric rings, like the rings that spread out from the center when you drop a stone in a quiet pool of water.

At the center is the point where the bomb drops, if it is an air burst. What you do in the way of first aid depends on where you are in relation to this central point. Up to one mile out, in all directions, from this central point, will be the area of very heavy destruction from the blast damage

and of deadly dosage of radiation. Most of the people in this area will be killed, but a few will survive. Authorities estimate that about 5% of people in this first zone will survive and not even suffer damage from radiation. The figures are based on the Japanese experience. Survival of these few people was due to the fact that they happened to be in places where they were sheltered both from blast and radiation.

## Modified Aid in Second Circle

For the next mile out in all directions there will be heavy blast damage and this is also the "dangerous dose" area of radiation. Here is where you will apply your modified first aid. This is the hazard area where there may be fire, falling walls and flying debris that could kill you and your patient while you are taking time to apply a splint or a tourniquet to stop bleeding.

Here also is the place where you probably will not have any splints or tourniquets or sterile dressings to apply even if you had the time. They will either have been destroyed or so covered with debris that you could not get at them. So you look first, as always, for signs of shock and bleeding, but also for signs of approaching fire or shaky walls.

If the patient is bleeding profusely, you put your hand right over the bleeding place and press hard enough to check the bleeding. You keep up the pressure while you lead the man or woman to safety. More likely, you will have to show the patient where and how to use pressure



**MASS INJURY**—In case of an atom bomb attack on your city, the scene from a Reno, Nev. fire in which more than 180 persons were so badly hurt they had to be sent to hospitals may be repeated hundreds of times every few blocks throughout the city.

and send him on his way while you go on to care for the next victim, and the next, and the next.

You may notice the symptoms of oncoming shock as you have been trained to do, but whether you have the patient lie down and try to keep him warm, to prevent shock, or whether you send him on to a safer area or to his home will depend on the situation with regard to the likelihood of further damage and injury.

You do not need to worry or even think about the radiation effects. Up to the present, there is nothing in the way of first aid treatment that will overcome the effects of a heavy dose of radiation. All the things that can be done, including the new methods now being tested in laboratories, for helping toward the possible recovery of patients who got heavy doses of radiation, will have to be done by doctors and nurses. Your role as a first aider will be to keep the surviving victims from bleeding to death or getting further fatal injuries before the doctors and nurses have a chance to try to treat the radiation effects.

### Running Away Useless

Remember this about the radiation from an atom bomb: It is all over in a minute or so. About 99% of the radiation produced comes out in the first fraction of a second after the bomb goes off. By the time you have picked yourself up, realized what has happened and pulled yourself together and begun to think about using your first aid training to help those around you, the worst is over. You will gain nothing by running away. You can safely stay and help those who need help.

Next in the geography of atom bomb first aid are the areas between two and four miles out from the center where the bomb was dropped. Here the damage will be moderate to slight. Most buildings will be standing, there will not be much fire danger, but there may be many casualties.

### Place for Top First-Aid

About 20% or 25% of the people in these two outer areas of a mile each will be killed. Many others will have severe injuries. There may be bad leg cuts that are bleeding profusely. Quick, proper treatment can save many lives here. And this is the area where topnotch first aid can and should be given.

You will have time to do it because there will not be so many injured in your immediate vicinity, and you will have splints and other equipment to use. But even though you may see only two or three or five badly injured persons, the total number will be large because the area is circular. So the total number of trained first aiders must be large if people in this area are to be saved.

You will not, of course, stop to consult a map to see which area you are in after an atom bomb burst. Nor will you be able

to tell the exact point where the bomb fell. But if most of the buildings are down and you see fire, you are near the central area.

If only a few buildings are down, and those mostly the small brick structures, you are probably out in the moderate to light damage areas. The one-, two-, three-, and four-mile circles may each be larger, depending on the power of the atom bomb dropped.

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### BOTANY

## Explorers to Visit South American "Lost World"

➤ AN EXPEDITION to the "lost world" of South America, one of the world's least explored areas, is being organized by the New York Botanical Garden and its Venezuelan associates to study some of science's most interesting plants.

Penetrating into the most remote part of Venezuela where high sandstone mountains create an isolated region, three American botanists and their Venezuelan colleagues will be gone about half a year. Organized by Dr. William J. Robbins, director of the New York Botanical Garden, the expedition party will consist of Bassett Maguire, curator, John Wurdack and Richard Cowan, botanical assistants.

Explorations will be concentrated in the Orinoco headwaters and they will visit particularly Haumacari and Yacapana, two of the sandstone plateaus. Neither has been explored botanically and, as far as is known, the first has never been scaled.

Instead of taking dollars to pay the Indians of the region for their aid, trade goods of use to them are being carried by the scientists. Among the articles desired by the Indians are quantities of lipstick, which they use to decorate their faces and bodies.

The Venezuelan mountains were the setting of Doyle's fanciful story of the Lost World.

The New York Botanical Garden already has a major botanical collection of the region.

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### AERONAUTICS

## Electric Ovens Provide Hot Food for Combat Crews

➤ IMPROVED electric ovens for giant bombers and troop carriers on long flights have been developed in Dayton, Ohio, at the Wright-Patterson Air Force Base. They will provide the means of supplying hot food to the largest crews even during a round-the-world non-stop trip.

The heaters are of different designs and different sizes. Bombers such as the B-29 and B-50 will be equipped with two ovens designated as the B-3, which can heat eight cans of a special complete ration in 11 minutes.

It is an oven with two shelves, and is heated with 400-watt and 120-watt units. Heat is regulated by thermostatic controls to prevent temperatures higher than that of boiling water, thus keeping the cans from exploding.

For troop-carrying planes, larger heaters are available. Some will heat 48 cans of rations in 35 minutes. Another oven is designed particularly for frozen foods. It can heat six frozen meals in 35 minutes, and has removable shelves so it can be used for canned rations.

Along with the development of these ovens, new types of canned rations have been developed. These tasty pre-cooked canned meals, known as IF-2 rations, contain such foods as boned chicken, beef and pork loaf, ground meat and spaghetti. They contain also fruit, crackers, cookies and candy for dessert. The frozen dinners contain meat, potatoes and a green vegetable, all wrapped in expendable aluminum trays.

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