

any last minute defences against fallout. When you do this, cover up well with outer clothing & leave them outside before re-entering the shelter as well as washing your head, neck & hands thoroughly. Brush under your nails, bathe your eyes, rinse your mouth with salt & water, cough & blow your nose hard.

IN GENERAL YOU HAVE BETWEEN 15-30 MINUTES TO DO THIS BEFORE THE FALLOUT STARTS FALLING. Always wear gloves when handling anything contaminated by fallout. Stay inside your shelter until notified by civil defence authorities that it is safe to come out. (A radio is very important for this.)

IN THE ABSENCE OF OUTSIDE COMMUNICATIONS, stay inside as long as possible. However count on being inside a minimum of 3 days. **AFTER THE FALLOUT PERIOD, IF YOU MUST SEARCH FOR FOOD OUTDOORS** following the fallout period, look for foods that are naturally protected such as nuts, which are shielded by the shell. Eggs will probably be safe to eat, especially if the hens stayed under cover during the fallout. Wash & peel potatoes as contamination is not removed by boiling alone.

GREENS SUCH AS CABBAGES, SPROUTS & LETTUCES WILL ALSO BE FAIRLY SAFE, if the hearts are solid & well protected by the outer leaves, which you should discard. Fish also should be safe. Animals which have been outside will not be safe. Remember that after the first few days of fallout that there is a risk of all plants being contaminated, as their roots will have taken up radioactive material in the soil.

RAIN WATER WILL BE CONTAMINATED, as will any water from your mains supply, & keep in mind that boiling it will not make it safe to drink. When venturing outside always wear a good layer of outer clothing that can be discarded when you return to your shelter.

RADIATION SICKNESS. THE SYMPTOMS CAN VARY FROM WEAKNESS, NAUSEA, DIARRHEA TO A LOSS OF APPETITE & DELIRIUM. Treat any wounds or injuries & remove all contaminated clothing where possible & wash the patient, not forgetting the hair. Be sure to wear gloves, a long coat & a mask when doing this & keep the patients clothes separate from anything else to avoid contamination danger. Alert the police or civil defence authorities.

PART SIX: WATER & FIRST AID

THIRST. THIRST BURSTS THROUGH EVERY HUMAN NEED. Owed water, the body is a ruthless debt collector who can force its owner to drink petrol, seawater or radiator water in an effort to exact repayment. A raging need in hot climates, thirst is more insidious in cold as you may not feel the pang until it is too late.

A BASIC MINIMUM OF 2½ LITERS ARE NEEDED to keep you going efficiently in cool weather & 4½ liters in warm weather. Thus in

tains powdered crushed rock.

RATIONING DRINKING WATER. IN DECIDING HOW TO RATION YOUR EXISTING SUPPLY OF WATER, discard the fallacy of rationing the only pint of water, for example into 50 eggcups, expecting 50 days of life. Without using energy you can last about 10 days in 10 degrees Celsius temperature, but only 11 days with 2½ liters. By the same token in a desert climate of 50 degrees Celsius you can only last two days without water or with up to half a liter. Not until you have 4½ liters can you hope to survive longer, & then only a day or so longer in this terrific heat.

SO THE BEST THING TO DO IS TO DRINK WHENEVER THIRSTY as it is the water that is inside you that is important. The only way to conserve water is to control your sweating, so don't be afraid of drinking too much as you can drink up to two liters at a time, & even this will be sweated out in a few hours in intense heat, as well as being expelled when you urinate.

SO ALWAYS DRINK ENOUGH, especially in a cool climate when you may not feel the need. You still need it & as in hot weather it is harmful to ration the body's needs when the water it craves could well be available. You always have to pay the water debt sooner or later. When drinking moisten your lips, mouth & throat before swallowing & never gulp down water when parched, but rather drink slowly & deeply.

WHEN YOUR WATER SUPPLIES ARE RENEWED THROUGH RAIN ETC., always drink your full before starting out again, saturating your body as if it is a bank & you are filling your account to avoid being in the red as long as possible. Then when on the road drink often & in small doses.

SOURCES OF WATER. THERE ARE MANY THINGS THAT CAN BE SPREAD OUT TO CATCH RAINFALL, such as large leaves, ground sheets & even clothes. If you have time you can even dig a hole & line it with cloth to prevent rapid drainage into the ground. Dew also can fall in great quantities in the desert & other barren places. It can be conserved by laying out potential dew traps such as ground sheets, tin cans, hub caps etc.

A DEW PIT CAN ALSO BE MADE by lining a pit with canvas or plastic & putting in clean stones upon which dew will collect & drip to the floor. Snow should be avoided unless there is no fresh water or ice in the area as it is uneconomical to heat for the amount of water produced, & you will need two liters per person per day.

A SURVIVAL STILL CAN BE EASILY MADE & CAN YIELD UP TO HALF A LITER OF WATER A DAY, providing you have about one square meter of plastic with which to "milk the ground". Dig a hole in an unshaded area about one meter across & deep enough to contain a bucket or other wide container. Spread the plastic sheet over the

any survival situation, it is safe to say that the priority is to find water, & having found it, make it safe to drink.

STAVING OFF THIRST. TRY SUCKING SOMETHING, such as a pebble, or chewing something soft & nonabsorbent such as a nut, leaf, gum, prune or onion. Sucking snow or ice is not recommended as it often makes you more thirsty & chills the stomach. If you must, hold the melted water in your mouth to take the chill off before swallowing, & try to take a little food at the same time.

YOUR MAIN AIM MUST BE TO SWEAT AS LITTLE AS POSSIBLE, as water lost due to perspiration must be replaced. In a hot climate move as in slow motion as your need for water will rise astronomically if you are active. Cold weather may demand hard work such as building a shelter, but even so, try to sweat as little as possible, & rest & sleep as much as you can.

IN HOT WEATHER THE ORDER OF THE DAY IS TO ADD CLOTHES & BODY COVER to check sweat evaporation. Button up your collar, sleeves & coat & make a headdress so as to spin out your body moisture to the best effect by keeping it in, or at second best, on, your body. Wear white if possible as it helps to reflect the heat rays.

TAKING CLOTHES OFF TO BE MORE COMFORTABLE IS A LUXURY THAT YOU CANNOT AFFORD. You can also keep cool by washing off with damp pads soaked in urine, alcohol or seawater, but don't jump into the sea. Don't drink seawater under any conditions. It may seem refreshing at first, but your thirst will soon burst into fiendish proportions. The salt content in urine is too high, & will increase your thirst.

IN THE HOT SUN YOU NEED TWICE AS MUCH WATER AS IN THE SHADE so use whatever shade is available. Shadow is one of the keys to conserving sweat & alleviating thirst pangs. In any shelter you improvise, allow the air to circulate freely. Whenever possible sit off the ground rather than sprawl on it as it's several degrees cooler 30 cm off the ground than on it, so insulate yourself from it with anything available.

IF YOU MUST DO ANY WALKING OR ACTIVITY, DO IT AT NIGHT as you will get more done per liter than in the daytime when the sun fries, frizzles, flails & terrifies. In cold weather, your sweat could freeze, so cut down your sweat rate by loosening tight clothing or taking off layers & replacing everything when you rest. **FOOD & LIQUIDS. IF YOUR WATER IS AS LITTLE AS HALF A LITER A DAY,** don't eat anything at all. In any situation where there is a shortage of water avoid proteins as they often need up to five liters a day to digest. Eat sweets, fruits, biscuits & plants. Alcoholic beverages should be avoided as they might lead to rash actions. Car battery water could contain toxic amounts of lead.

FISH FLUIDS ARE BEST AVOIDED as many have been harmful, although there have been some exceptions. Glacier water often con-

tains powdered crushed rock.

PLACE THE CONTAINER FIVE CENTIMETERS BELOW THE PLASTIC AT ITS LOWEST POINT, & anchor the plastic around the rim of the hole with rocks. Be sure that the underside of the plastic is clean, at the same time roughening it to help the water drain more efficiently. After a while the sun will raise the temperature of the air in the soil under the plastic to furnace pitch, forcing the vaporisation of any water present in the soil.

THE AIR UNDER THE PLASTIC WILL BECOME SATURATED & drops will form on the plastic sheet as it is cooler than the damp air underneath it, & the drops will eventually trickle into the container. This works better at night as the soil temperature is hot & the plastic is cool. Make sure that the plastic does not touch the earth anywhere so as not to lose any moisture.

PURIFYING WATER. IT IS ALWAYS WISE TO TREAT WATER THAT YOU ARE NOT SURE ABOUT AS IF IT WAS POLLUTED, as the seemingly crystal clear stream may be running over a dead sheep 50 meters upstream.

SOME BASIC STEPS TO FOLLOW IN PURIFYING WATER ARE: a) strain all water through a folded hanky to suspend gravel, sand, rust or dust & b) boil it hard for at least a minute (preferably longer) & let any sediment settle. You could also use purifying tablets, such as halzone tablets, for which instructions are usually found on the container. Taste can be improved by adding a pinch of salt or pouring it from can to can.

FIRST AID TIPS: SHOCK. MANY PEOPLE HAVE DIED AFTER INJURY BECAUSE OF UNTREATED SHOCK. It weakens the body, lowers your vital activities, increases under pain, exposure or exhaustion & must always be treated in any survival situation. Unless there is some more pressing need such as severe bleeding, act immediately to find some sort of shelter.

LAY THE PERSON DOWN COMFORTABLY, SLIGHTLY RAISING THEIR FEET & LOOSEN ANY TIGHT CLOTHING, taking care not to chill them. Relieve any pain & treat any injuries, at the same time keeping him warm but not to the point of sweating. Give him hot liquids if there is no internal bleeding, reassure him & keep him away from any noise & panic.



"And the peace of God, which passeth all understanding, shall keep your hearts & minds through Christ Jesus." Phil.4:7