



9.0 Simple Medical Tips

9.1 Rectal Fluid Resuscitation

The standard technique of giving fluids to an unconscious, shocked or dehydrated person is with intravenous fluids. However this may not be possible in a survival situation. An alternative is to give fluids rectally. This method will obviously not work if the cause of the problem is severe diarrhea. This is included for interest only and I do not recommend this procedure :-)

The person is placed on their side, with the buttocks raised on two pillows. A lubricated plastic tube with a blunt end (a large urinary catheter or naso gastric tube is ideal) should be passed through the anus into the rectum for about 9 inches. It should pass with minimal pressure and should not be forced. The danger is perforating the bowel.

The tube should be taped to the skin. A longer length of tubing and a drip bag or funnel should be attached to the end and elevated. Then 200mls of fluid slowly dripped in over 15 to 20 minutes. The catheter should then be clamped. This can be repeated every 4 hours with a further 200mls. Up to 1000-1200mls/24hrs can be administered this way. If 200mls is tolerated it can be worth increasing the volume slightly or reducing the time to 3 1/2 or 3 hrs. If there is over flow the volume should be reduced. A rectum full of feces does not absorb water very well, so the amounts may need to be reduced, but given more frequently.

9.2 Death

People are going to die, one way or another it will happen and you need to be

prepared for it.

9.2.1 Diagnosing Death:

- No pulse.
- No respiration.
- No heart sounds.
- No pupil response to light.

If all of the above are present, you're dead!

Hypothermia Note:

Precautions need to be taken where the person concerned has been in the extreme cold, either the snow or very cold water. Severe hypothermia causes a profound slowing in the body's metabolism and as a consequence can mimic death.

One option is to aggressively resuscitate anyone found in the above situations, although in my view this is likely to be an extremely uphill battle in a survival situation, especially if they clinically appear to be dead. The management of severe hypothermia is dealt with in detail in most advanced first aid texts. But for interest the basics are included below:

Extreme care needs to be taken in handling a very hypothermic patient as they are predisposed to developing ventricular fibrillation if roughly handled. But the goal is slow rewarming

- body heat
- warm room
- space blanket
- warm IV fluids*
- irrigation of stomach and bladder with warm fluid*
- packing groin and axilla with hot packs.*

*there is still some debate in the literature about the place for these last 3 options.

9.2.2 Handling a dead person

Handling a dead person: The human body decomposes very quickly, especially in

hot weather. A decomposing body rapidly becomes a health hazard. A dead person should be buried quickly, in a reasonably deep grave to avoid predation by scavengers. Most religions have short rites for the burying of the dead, but for the non-religious a favorite poem may be appropriate.

9.2.3 Records

Records: It is important to document the fact that someone has died, but also the circumstances of the death, your guess as to a cause of death and how the body was disposed of. This becomes important for legal reasons should things return to normal or in the case of an isolated expedition for the coroner on your return.

9.3 Gastroenteritis and Dehydration.

Gastroenteritis and Dehydration. Gastroenteritis is still a killer in the third world especially for young children (I include typhoid, cholera, giardia, salmonella, "food poisoning" etc., under the general heading gastroenteritis). The most important preventive action you can take in preventing gastroenteritis is to wash your hands following defecation. Also hands should be washed before handling food, dealing with the sick or babies and infants. All drinking water should be boiled unless you are sure of its purity. Hand washing and clean water will prevent 99% of diarrhoeal disease. This topic is very well covered in "Where there is no Doctor".

9.3.1 Dehydration

What kills is not having diarrhea or vomiting, but dehydration. Again this is not the forum for detailed medical treatments. But you must understand how to recognize dehydration and know how to treat it. The basis of any treatment is replacement of lost fluids and electrolytes. This is a relatively simple matter if you have access to IV fluids, but without you must rely on the patient drinking. It is often difficult to get a patient to drink, especially when they feel very unwell, but it must be emphasized to them that if they don't drink they will die. The secret is small amounts of fluid, frequently. If you try and force a large glass down, it will come straight up right away. They must put in at least what they are putting out, more in hot weather. There has been much debate over what to offer to replace lost fluids and electrolytes. It must contain not only water, but also Sodium (table salt), Potassium (light salt) and also some form of sugar. The sugar is vital for absorption to take place in the intestines, salts alone are poorly absorbed when the gut lining is damaged as it often is in gastroenteritis. I refer you to an excellent article in *Scientific American May 1991* on oral rehydration formulas (thanks to Logan VanLeigh for the reference).

9.3.2 Oral Rehydration Fluid

The following is an easy formulae for making an oral rehydration fluid.

- 1/4 Tsp Salt (Sodium Chloride)
- 1/4 Tsp Lite Salt (Potassium Chloride)
- 1/4 Tsp Baking Soda
- 2 1/2 Tbsp Sugar

Combine ingredients and dissolve in 1000 mls (1 liter) of boiled and cooled water.

9.4 Sterilization

I've tried to emphasize the importance of basic hygiene in any survival situation. This is especially true when performing any surgical procedure. From suturing a small cut or dressing a wound, to dealing with a major injury or operation.

You should wash your hands for 2-3 minutes with soap or a surgical scrub and then if available use a pair of sterile gloves. The instruments you are working with should also have been sterilized.

There are several effective low tech ways to do this:

1. **Soaking in Alcohol:** Soak the instruments in Ethyl Alcohol. The higher the concentration and the longer the soak the better. Recommended that > 70% (ideal is >95%) solution for >12 hrs. This time can be shortened to several hours by the addition of Formaldehyde solution to the Alcohol.
2. **Boiling in water:** Boil in water for 30 minutes (at sea level). Will cause rusting of anything which holds a edge such as scissors and knives. De-ionized or soft water will reduce this problem.
3. **Pressure cooking:** The gold standard in a survival situation. This is the basis for hospital autoclaves. Ideally the instruments must be cooked for 30-40 minutes at temperatures >110 deg Celsius at 18-20 psi. Using this method it is possible to sterilize instruments wrapped in cloth or linen. This will mean they stay sterile following removal from the pressure cooker and can be used at a later date. If packed allow further 15-20 minutes drying time. The instruments need to be placed on a rack in the pressure cooker, above the water in the bottom, rather than in the water.

The main problem is that home pressure cookers and canners mostly they

come in a range of 5, 10 and 15 lbs of pressure which I understand equates to 220, 230 and 240 degrees Fahrenheit at sea level pressure. There's no safe way to take them up to 20 psi without the serious risk of blowing their pressure safety valves. They generally come in two types, the dial gauge and the dead weigh pressure gauge. The dial gauge can do odd pressure levels, but really needs to be calibrated periodically with a year being the suggested interval. This calibration is usually beyond what the average homeowner can do, thus they are not well suited to survivalist use. The dead weight gauge can only do what it is manufactured for, 5, 10, 15 psi for most pressure canners and usually only 10 or 15 psi for most pressure cookers. The best advise to those using these devices is to use one set for 10 or 15 psi and lengthen the "cooking time" by 15 minutes. There is no good information available about improvising "autoclaving", so this information must be used with caution. (Thanks to Alan Hagan for help with this section)

[Next](#) | [Previous](#) | [Top](#) | [Table of Contents](#) | [Home](#)