

EMERGENCY PREPAREDNESS FOR SOUTH AFRICA

FIRST AID & NATURAL REMEDIES

Medication, chronic conditions, first aid kits, emergency treatment basics and practical natural options.



FIRST AID

FIRST AID BASICS

- ✓ STOP BLEEDING
- ✓ CLEAN WOUND
- ✓ PREVENT INFECTION
- ✓ TREAT SHOCK
- ✓ BURNS
- ✓ FRACTURES
- ✓ CPR BASICS

PARACETAMOL
500 mg
PAIN RELIEF

IBUPROFEN
200 mg
PAIN - FEVER
INFLAMMATION

CHRONIC
MEDICATION
SUPPLY

ARNICA
TINCTURE
PAIN & BRUISING

CALENDULA
CREAM
SKIN HEALING

HERBAL TEA
• IMMUNITY
• DIGESTION
• STRESS RELIEF
• SLEEP

CHRONIC CONDITIONS
• DIABETES
• HYPERTENSION
• ASTHMA
• HEART CONDITIONS
• EPILEPSY
KEEP MEDICATION
STOCKED

FIRST AID
GUIDE

11 FIRST AID



Experts suggest that every home should maintain basic medical equipment and supplies that need to be uniquely tailored to your family's medical needs. Most of us have had our fair share of patches and antibiotic ointments, but do you have enough medication to treat dehydration, bleeding, nausea, diarrhoea or even poisoning?

During a major disaster such as a cyclone or an earthquake, roads can be blocked or overcrowded so much that they cannot be used. Knowing what to expect will help you make your emergency medical plans.

11.1 MEDICATION

Similar to making a list for starting an emergency food supply, we start a list of medical supplies by listing probable medical situations and what supplies would be required if it occurred. Also keep cognizance of any family members who have chronic conditions, allergies or long-term health issues. Furthermore, if you are planning to care for children or older members of the family when an emergency arises, make sure you have enough supplies to care for their medical needs.

SAFETY TIP

- Don't share personal prescription medications with anyone, even if they use the same medication.
- Check for any headaches, pain relief, anti-on and anti-vomiting medications accordingly and store them in a child-resistant container.
- Ensure that only responsible adults have access to medication.

11.1.1 STORAGE OF MEDICINE

Just as in the case of food, medicine can break down and spoil very easily if exposed to natural elements such as moisture, light, air and heat. Find an area in the home that is cool and dark to store your medical supplies. Make sure that you place medicine out of the reach of children.

Regularly check the expiration dates to ensure that the medicine is still fine and rotate stock as required. Although some medicines may last longer than their expiry dates, there are definite signs of spoilage that you should take notice of to determine if the medication is still fit for usage.

- Cream or ointment that has discoloured or changed texture over time.
- Cream or ointment that has separated.
- Medicine that has changed scent since it was opened.
- Tablets that are broken or changed in colour.
- Medication that has expired is usually less effective and, in some cases, even poisonous.

11.2 CHRONIC DISEASES

Chronic diseases can be hereditary, but it is known that various lifestyle and environmental factors such as smoking, inadequate diet, lack of exercise, and excessive alcohol consumption increase the risk for chronic diseases. These factors are, to some extent, controllable, but there are often other factors such as poverty, malnutrition during pregnancy and infancy, genetic susceptibility/propensity, and age, over which the individual has little or no control. In addition to early diagnosis, our focus is largely on the prevention of the disease and the promotion of healthy behaviour.

Chronic diseases that deserve priority include high blood pressure or hypertension, asthma, epilepsy, strokes, kidney disease, cancer, obstructive pulmonary disease, and Diabetes Type 2. (Diabetes type 1, which is mostly diagnosed in early childhood, is less common.) Most of these diseases are long-term illnesses and although many of these can't be cured, their symptoms can be controlled.

People of all ages are affected by chronic diseases, but the risk of developing a chronic disease is higher among the elderly, as are the chances of chronic illness leading to physical disability.

PLEASE NOTE:

Chronic medicine is usually 'schedule 5' medicines. This can only be obtained from a pharmacy by prescription. The prescription is usually only valid for a certain amount of time. If the prescription expires, the patient must revisit the doctor to obtain a new prescription.

However, a patient must ensure that the person has sufficient chronic medicine if a state of emergency is declared. If chronic medication cannot be obtained, one has to look for alternative options.

11.2.1 ASTHMA

Asthma is a lung disease that causes difficulty with breathing. Asthma can be either acute or chronic. When asthma attacks occur, there is an obstruction in the flow of air to the lungs. Some common causes of asthma are allergies, air pollution, respiratory infections, sulphites in food, and certain medication. Common symptoms include coughing, wheezing, shortness of breath, and chest distress. There are many medical treatments for asthma. These simple natural remedies can also bring relief to some of the symptoms.

There are several natural remedies that can provide meaningful relief during an asthma episode when prescribed medication is unavailable. These include ginger, garlic, honey, eucalyptus oil, mustard oil, figs, onions, lemon and salmon. For detailed guidance on each of these remedies — including how to prepare and use them — refer to the dedicated chapter on **Natural Remedies and Alternative Medicine** later in this guide.

11.2.2 HIGH BLOOD PRESSURE

If you have been diagnosed with high blood pressure, also known as hypertension, the use of medication to reduce your blood pressure may be of concern to you.

One's lifestyle plays an important role in the treatment of high blood pressure. If you manage your high blood pressure successfully by maintaining a healthy lifestyle, you can avoid, delay or reduce the need to take medication.

Here are seven lifestyle changes that you can make to lower your blood pressure and keep it low.



11.2.2.1 LOSING WEIGHT

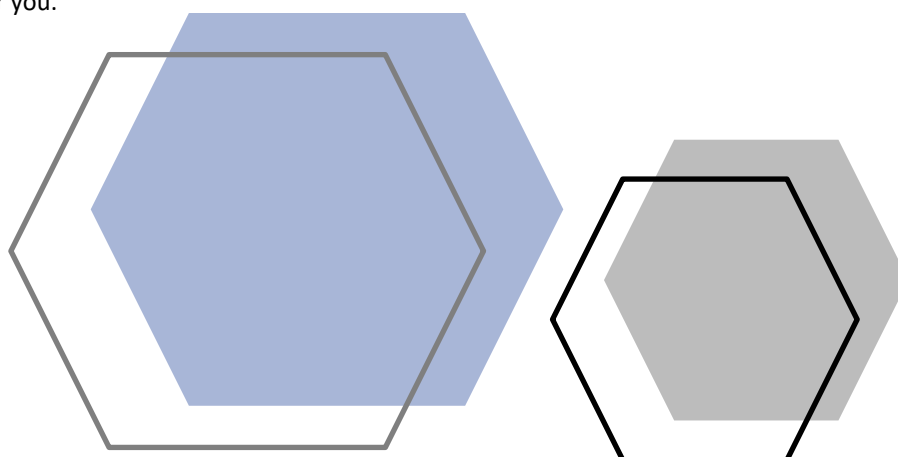
Hypertension associated with obesity is dangerous for one's long-term health. Obesity can cause poor blood circulation and stress on joints, bone structure, and the heart. This can worsen the symptoms of high blood pressure. Therefore, if you are someone who is struggling with obesity, it is important to prioritise weight loss when treating your high blood pressure.

11.2.2.2 KEEP AN EYE ON YOUR WAIST

Besides the extra few kilograms you shake off, you should also keep an eye on your waist. Having too much weight around your waist (belly) increases your risk of high blood pressure. Men usually are in danger if their waist size is greater than 100 centimetres, while women are in danger if their waist size is greater than 90 centimetres. Keep in mind that these figures vary for different ethnic groups. Ask your doctor about a healthy waist size for you.

11.2.2.3 EXERCISE

Regular physical activity of at least 30 minutes on most days of the week can lower your blood pressure by 4 - 9 millimetres of mercury (mmHG). It is important to keep exercising, because if you stop exercising, your blood pressure may rise again. Include cardiovascular exercise in your fitness routine will improve your circulation, lung capacity and heart efficiency. The combination of these will lower your blood pressure. The best type of exercise for lowering blood pressure includes walking, jogging, cycling, swimming and dancing. Exercises using weights can also help lower blood pressure. Talk to your doctor about setting up an exercise program for you.



11.2.2.4 EAT HEALTHY

A diet plan that contains whole-grain, fruit, vegetables, low-fat dairy products that avoids saturated fats can lower your blood pressure by about 14 mmHG. It's not easy to change one's eating habits, but with a few tips you can learn to keep a healthy diet.



- **Keep a diary of your food intake.** By keeping a record, even if it's only for a week, you can shed a lot of light on your true eating habits. Keep track of what you eat, how much, when and why.
- **Consider increasing your potassium intake.** Potassium may reduce the effect of sodium on your blood pressure. The best source of potassium is foods such as fruits and vegetables rather than food supplements. Talk to your doctor about which potassium level will be best for you.
- **Be a smart buyer.** Read food items' labels when shopping and stick to your healthy eating plan even when you go out for dinner.

11.2.2.5 CUTTING YOUR SALT INTAKE

People with high blood pressure, moderately high blood pressure and full-blown hypertension can drastically lower their blood pressure by decreasing their salt intake. According to the Mayo clinic in the USA, even a small reduction in sodium in your diet may reduce your blood pressure by 2 - 8 mmHG. It is recommended that people with hypertension should limit their salt intake to less than 1500 milligrams (600 milligrams of sodium) per day. We take in most of the sodium through processed foods. So, it's best to stay with unprocessed foods. When you eat food that has a label on the back – take note of the sodium content of the product.

11.2.2.6 LIMITING THE QUANTITY OF ALCOHOL THAT YOU DRINK

Alcohol can be good and bad for your health. In small quantities, it may reduce one's blood pressure by 2 - 4 mmHG. However, the opposite is true when you use too much alcohol. Generally, it is more than one drink a day for women and for men over 65, or more than two drinks a day for men aged 65 and younger. People who drink more than a moderate amount of alcohol a day can significantly increase their blood pressure. It can also reduce the effectiveness of blood pressure medication.

11.2.2.7 STOP SMOKING

Smokers are at greater risk of suffering from hypertension. Although tobacco and nicotine in cigarettes may cause temporary blood pressure increases, smoking is not considered a cause of chronic hypertension. Instead, factors associated with smoking, such as excessive alcohol consumption and lack of exercise, may be responsible. However, your blood pressure may drop a little if you stop smoking. Of course, there are many other health benefits to stop smoking.



11.3 FIRST AID KIT

It is imperative that a first aid kit should be handy, especially if medical assistance is not available immediately. Pills for flu, headache tablets, and plasters for accidental cuts are a must. The following list is a wide range of essential items. Of course, you are more than welcome to add or even to take away from this list.

11.3.1 NECESSARY ITEMS

- Duct tape to keep a splint in place
- Butterfly bandages, to hold the edges of a cut together
- Non-stick sterile dressings for small cuts or scrapes
- Sterile gauze to control bleeding and prevent contamination
- Sterile bandages, to support sprain
- Cream to relieve itching after insect bites and slight skin irritation
- Antibiotic ointment, to prevent infection of small wounds
- Antiseptic ointment, solution and syringe to clean wounds
- Cotton
- Disposable medical gloves
- Eye shield
- Loosing Solution to wash out an eye
- Triangle connection
- Sterile gel for fire and burns
- Aluminium wings splint
- Cold medication
- Plastic bags, different sizes
- Safety pins, different sizes
- Scissors
- Hand sanitiser
- Thermometer
- Suction device for wound coil
- Syringe, medicine cup or spoon
- CPR mouthpiece (breathing barrier)



11.3.2 MEDICATION

- Aloe Vera-Gel
- Calamine ointment
- Anti-diarrhoea medication
- Purgative
- Anti-acids (Rennies, Gaviscon)
- Antihistamine
- Pain-relievers
- Cortisone cream
- Cough and cold medicine



11.3.3 EXTRAS

- Small waterproof flashlight
- Batteries and accessories
- Waterproof matches
- A small notebook and pencil
- Space blanket
- Emergency whistle

Don't forget essential vitamins and nutritional supplements. This can help prevent health problems and build a strong immune system. Vitamins are essential for regulating body functions and also to help with the healing process. Centrum multivitamin is a good product to keep your body functioning at optimal levels.

11.4 BASIC EMERGENCY PROCEDURES

- **FIRST AID APPLICATIONS** - There are several first-aid applications for cell phones and tablets available. Some of these applications are quite intelligent. By answering a few basic questions about the symptoms of the patient, it can help to make diagnoses of the patient. By following a series of basic procedures by reading from this phone app, you can try to help the patient.
- **MEDICAL MANUAL** - Cell phones are not always available. Obtain a proper medical guide.
- **FIRST AID COURSE** - First-hand practical experience still remains the best option. So, it is strongly advised that you attend at least one first aid course.

11.4.1 BASIC FIRST AID TRAINING CAN SAVE A LIFE

Nobody is exempt from a life-threatening situation. Knowing the basic fundamentals of first aid have saved many lives in the past. Here are a few tips that you can keep in mind. Statistics differ but on average, more than 11,000 people die every year in car accidents, about 20,000 are victims of murder, robberies and hijackings, and 1 000 farms fall prey to farm attacks. It is therefore imperative that each and every one should be able to apply first aid.

After an attack or accident, the victims may be shocked, injured and possibly unconscious. Basic first aid techniques can help keep injured people alive until medical assistance arrives. (These are just tips, not complete first-aid training)

11.4.1.1 CLEARING OF AIRWAY

Make sure the patient's airway is open and clear. Sometimes dentures, vomit or bleeding can block the throat. Let the patient lie on his back; and pull his head back. If there is vomit in the airway, the patient should be turned on the side, but his head should still be pulled back.

If a patient no longer breathes by himself, you should help to get air in the patient's lungs. Turn the patient on his back, pull his head back and pinch his nose. Blow in his mouth. Make sure that the patient's lungs are filled. It can be easily observed by the up and down movement of his chest. Wait until the air has exhaled through his mouth or nose and then repeat the process

11.4.1.2 NO PULSE DETECTED

If someone's heart has stopped and there is no pulse, CPR should be started immediately. Turn the person on his back and pull his head back to open the airway. Mouth-to-mouth breathing should be done with cardiac massage (CPR) to get oxygen in his lungs. The heart massage thus helps to circulate blood flow to the brain, lungs and heart. Mouth-to-mouth respiration ensures that there is oxygen in the bloodstream. If there has been a lot of blood loss, legs should be lifted and placed on an object like a chair.



Blow air into the mouth four times quickly and follow it up with fifteen downward heart compressions (strictly regular once a second) on his chest. The right method is to place both hands flat on the lower part of the chest, straighten the elbows and press down hard. Then blow air into his lungs again and massage the heart five times. Repeat these two steps as many times as necessary.

11.4.1.3 BLEEDING

If an artery is ruptured, the bleeding is light pink or bright red and it rhythmically pulse out of the wound. Bleeding from an ordinary vein is dark coloured and it flows out regularly. The usual type of bleeding can be stopped with a pressure bandage, but an artery will only stop bleeding if a tourniquet bandage is placed on the wound. This is done by turning a dressing around the location of the artery to prevent blood flowing to the body part where the wound is. The dressing is wound up with a pen or stick until the blood supply to the wound is cut off.

A pressure bandage can be held around a leg or around an arm for up to three hours at a time without causing tissue damage. However, it is advisable to relieve the pressure bandage every half an hour for a few seconds so that the blood can take oxygen to the body part in question.

If it appears that an injured person may require surgery, he should not drink or eat anything, as this may cause him vomit during anaesthesia, which can be very dangerous.

The best painkiller for a fracture is immobilization. Place a pillow under the broken limb, or splint it between two sticks or boards. One can easily lose 1.5 litres to 2 litres if bleeding internally due to a fracture.

11.4.1.4 BULLET AND KNIFE WOUNDS

In the case of a gunshot wound, the patient should be moved as little as possible as the bullet can cause great damage if it is in a life-threatening place, such as the neck, back or in the torso.

In the case of a knife wound, try to stop the bleeding as soon as possible. If a knife or other sharp object is still stuck in the victim's body, it should not be removed. If it gets stuck, it might block arteries, which will start bleeding when the object is removed. An adult has six to seven litres of blood in his body. He can die due to a loss of blood in a few minutes if an artery is ruptured, as the heart will beat faster due to shock and the body will try to compensate for the loss of the body's functions.

11.4.1.5 CHRONIC DISEASES

People that suffer from chronic illnesses such as asthma, diabetes and high blood pressure should wear a Medic Alert bracelet or necklace at all times which will ensure that all medical information is available in case the person is unconscious.

11.4.1.6 MAKE USE OF EMERGENCY SERVICES

There is an emergency service organisation in South Africa that provides a vital medical service to the community. It consists of a group of people who are well trained to apply emergency treatment in any situation.

In an emergency, one national emergency number - 10177 - can be dialled. However, it is advisable to always keep a local emergency number at hand, which will directly connect you to an emergency centre.



When a disaster happens and for other logistical reasons, it is not always possible for rescue teams to be available at the scene when an incident happens. That is why the Bateleur club emergency communication Centre has been established. When someone experiences an emergency, often associated with trauma and panic, such as during a farm attack, call this centre. They will manage the situation by notifying the SA Police Service, neighbourhood watch, emergency services, fire brigade and other support groups, such as your neighbours, immediately and simultaneously in case of an emergency. Members can decide beforehand who needs to be contacted in the district. They also offer 24-hour access to a medical Centre (Nurse on Call) where experienced medical personnel can provide expert telephonic advice until help arrives. Bateleur club also arranges for the transport of patients by ambulance or helicopter, and provides assistance to minors.

11.4.2 TREATMENT OF BURN WOUNDS

Accidents happen in the blink of an eye; therefore, it is important to know what to do when someone gets hurt in your presence.

There are four different kinds of burns, classified according to what caused the burn:

- 1) heat, for example fire, steam or hot liquids;
- 2) electricity;
- 3) the sun;
- 4) Chemical substances.



11.4.2.1 GRADING OF BURN WOUNDS

The severity of a burn is measured by the depth of the wounds (expressed in degrees measuring from one to four) and the size of the wound (expressed as a percentage from 1 to 100):

- 1) **1st grade** - The skin is red, sensitive and usually moist. A mild fever, restlessness and headache can occur.
- 2) **2nd grade** - The skin is damaged and blisters can occur. The pain is worse and the redness is brighter.
- 3) **3rd grade** - The skin is deeply damaged and shows bright red, white or black. It is possible that you have no pain and no blisters, as the nerves are also burnt.
- 4) **4th grade** - The skin tissue is damaged to the muscles and bone.

PERCENTAGE OF DAMAGE

| | | |
|--------------------------------|---|------|
| ➤ Size of your hand | = | 1 % |
| ➤ Head and Neck | = | 9 % |
| ➤ One hand and one arm | = | 9 % |
| ➤ One foot and one leg | = | 9 % |
| ➤ Chest and stomach | = | 18 % |
| ➤ Back, including the buttocks | = | 18 % |
| ➤ Genitals | = | 1 % |

The percentages of the affected areas are added to ascertain the total damage:

| | | |
|------------|---|----------------|
| ➤ Little | = | 15 % |
| ➤ Moderate | = | 15 - 49 % |
| ➤ Large | = | 50 - 69 % |
| ➤ Huge | = | 70 % and more. |

11.4.2.2 WHEN SHOULD THE INJURED PERSON RATHER BE TAKEN TO HOSPITAL AND WHEN CAN A BURN WOUND BE TREATED AT HOME?

- Most first-degree burns that cover less than 15 percent of the body can be taken care of at home.
- All children under two must be taken to the doctor for an examination.
- When more than 70 percent of the body is burnt, the victim should be taken to hospital immediately.
- When the victim's consciousness is affected, the patient must be taken to hospital immediately.

- Any third-degree burns should go to hospital immediately.
- Anyone who obtains electricity burns should be examined by a doctor.
- If the hands, feet, genitals or face are burnt then a doctor should immediately examine the wounds.
- Chemical burns that caused blisters should be treated immediately by a professional.

6.4.2.3 TREATMENT: EACH TYPE OF BURN SHOULD BE TREATED DIFFERENTLY

11.4.2.2.1 WOUNDS CAUSED BY HEAT / FIRE

- 1) Extinguish the fire. If the victim is still burning, wrap the person in a blanket or towel to extinguish the flames.
- 2) Do not use any cream, butter or adhesive tape near or on the burns; it can trap the 'heat' inside.
- 3) Do not remove any clothing that has burnt into the flesh.
- 4) Remove jewellery before the affected areas begin to swell.
- 5) For small burns, immerse the burned part in cold water (not ice water). Restrict the immersion time to five minutes at a time to prevent a dead feeling and numbness. You can also put a damp cloth on the affected areas for 10 minutes to fifteen minutes at a time; it will relieve pain and swelling.
- 6) In the case of a limb, lift the affected part for the first 24 hours above the heart level.
- 7) Aloe Vera gel can be used for first degree burns, but first read the leaflet, as some gel contains alcohol. This can irritate the skin. The gel can be cooled in the refrigerator for greater relief.
- 8) Local anaesthetic ointment purchased without prescription can also help for pain relief.
- 9) Do not cut blisters as this can cause inflammation.
- 10) Wash the wound once a day with an antibacterial soap and apply antibiotic ointment.
- 11) If the blisters do break, remove any loose skin carefully.
- 12) Take lots of fluids to prevent dehydration.

USEFUL HINTS FOR FIRST AID

- Regularly replenish the stock of your first aid kit.
- Store it in a cool, dry place and out of reach of children.
- Make sure the whole family knows where the first aid kit is kept, what it contains and know how to use the content.
- Include a basic first aid manual or instruction booklet.
- Paramedics' top three must-have items are: a CPR mouthpiece, something to stop bleeding and medical gloves.
- Never touch blood or body fluids without wearing medical gloves.
- If you don't use the box often, at least check expiry dates once a year.
- In case of an emergency - try to provide the best assistance to the injured person, but always ensure your own safety.

11.4.2.2.2 ELECTRICAL BURNS

- 1) If there are any open wires near the person, immediately switch off the power supply or disconnect the device.
- 2) If it is not possible to switch off the power supply, isolate yourself by properly drying your hands and using dry gloves or a dry cloth before touching to the victim.
- 3) Stand on an isolated surface such as newspaper or towel. Do not earth yourself directly to the ground, metal or any other conductor.
- 4) Carefully remove the wires with a non-metal, non-conductive object, such as a broomstick or rubber.
- 5) Keep the victim calm and wrap the person in blankets.

- 6) Cover all open wounds with gauze or bandages.
- 7) If there is bleeding, limit it by applying pressure to the wound.
- 8) Immediately take the victim to a doctor or hospital.

11.4.2.2.3 BURN WOUND CAUSE BY EXPOSURE TO THE SUN

- 1) Put a wet cloth on the wound to relieve the burning sensation.
- 2) Give the person plenty of fluid to drink.
- 3) Run for the patient a lukewarm bath of baking soda or vinegar.
- 4) Determine the severity of the wounds and decide whether the victim should speak to a doctor.

11.4.2.2.4 BURN WOUNDS CAUSED BY CHEMICAL SUBSTANCES

- 1) Rinse the affected part for five minutes under cold running water. Make sure that the dirty water runs away.
- 2) If it is a major burn, the victim should lie flat on the way to hospital to ensure that the victim's blood pressure doesn't drop due to the shock.

11.4.2.3 WHAT DO I NEED IN MY FIRST AID KIT FOR THE TREATMENT OF BURNS?

- 1) A small pair of scissors
- 2) Aloe Vera-gel that does not contain any alcohol
- 3) Local anaesthetic
- 4) Antibacterial soap
- 5) Savlon or Dettol
- 6) Antibiotic ointment
- 7) Bandages and gauze
- 8) Baking soda
- 9) Cotton wool and gauze to clean the wounds

11.4.2.4 PREVENTION OF BURN WOUNDS

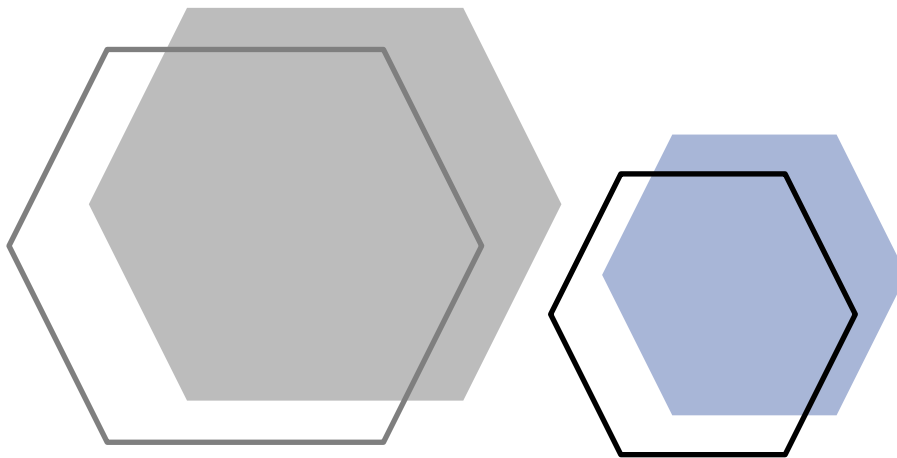
- 1) Keep a fire extinguisher nearby at all times. Make sure you know how to use it.
- 2) Do not wear loose clothing close to a fire.
- 3) Do not smoke in bed.
- 4) Turn all the handles of pots and pans to the rear of the stove to ensure that kids don't pull it over.
- 5) Do not light fireworks while holding them in your hand.

11.4.3 WATERBORNE DISEASES

When an emergency occurs, there is a particular increase in admissions at hospitals, namely diarrhoea, acute respiratory infections, dermatitis cause by contaminated water. These types of medical conditions are usually occurring as a result of a broken pipe that got the floodwater contaminated with oil, chemical waste or raw sewage. Flood water, standing pools of water and dams should ALWAYS be considered as contaminated and should never be drunk. This form of contamination can irritate the skin or irritate eyes. Serious viral infections such as diarrhoea, cholera and bilharzia can cause a range of other health problems. A significant number of these diseases can be avoided by using only clean drinking water and by applying adequate sanitation practices.

11.5 CONCLUSION

- 1) List the most likely medical problems you may experience during a disaster and make a list of the medical supplies you will need.
- 2) Remember to stock up on chronic medication when compiling your list.
- 3) Ensure that all members of the family know the emergency phone numbers.
- 4) Remember to get additional supplies for the elderly and young children.
- 5) Get yourself a plastic toolbox in which to store your medicine.
- 6) Obtain a proper medical guide or mobile app.
- 7) Subscribe to a CPR / First Aid class with your local Red Cross or your local emergency management department. For those who have limited time at their disposal, you can also get first aid.



12 NATURAL REMEDIES AND ALTERNATIVE MEDICINE



Throughout this guide we have emphasised the importance of stocking chronic medication and building a comprehensive first aid kit. That advice stands and should be your first priority. However, in a prolonged crisis — where pharmacies are closed, supply chains have collapsed or your medication runs out before you can replenish it — knowing how to use natural remedies and locally available plants to treat common ailments could make a significant difference to your family's health and comfort.

South Africa is extraordinarily rich in medicinal plants. Our indigenous healing traditions stretch back thousands of years and many of the remedies used by our grandparents and by traditional healers have been validated by modern research. This section is not a replacement for professional medical care or prescribed medication. It is a practical supplement — a collection of accessible, locally available remedies for common conditions that may arise during an emergency when conventional medicine is not immediately available.

Several of the remedies in this chapter are particularly beneficial for respiratory conditions including asthma. Refer to the Asthma section in the First Aid chapter for specific asthma management guidance alongside these natural remedies.

IMPORTANT

Always consult a medical professional when one is available. Never stop prescribed chronic medication without medical advice. Use natural remedies as a bridge — not a replacement.

12.1 NATURAL MEDICINES

12.1.1 ALOE VERA

Aloe vera is arguably South Africa's most versatile medicinal plant and one that grows abundantly across the country with almost no maintenance required. Every South African household should have at least one aloe plant in the garden or in a pot.

- **Burns and sunburn** — the gel from a freshly cut aloe leaf applied directly to a burn provides immediate cooling relief, reduces inflammation and promotes healing.
- **Skin irritations, rashes and insect bites** — fresh aloe gel soothes itching, reduces redness and has natural antibacterial properties that help prevent infection in minor skin wounds.



How to use: Cut a mature leaf close to the base of the plant. Slice it open lengthways and scoop out the clear gel with a spoon. Apply directly to the affected area. Fresh gel can be stored in a sealed container in the refrigerator for up to one week.

12.1.2 ROOIBOS

Rooibos is uniquely South African — grown only in the Cederberg region of the Western Cape and used medicinally by the Khoisan people for centuries. It is widely available, inexpensive and has a remarkable range of health benefits.

- **Digestive problems** — soothes the digestive tract, relieves stomach cramps, nausea and diarrhoea. Gentle enough for infants and young children.
- **Allergies and anxiety** — contains a natural antihistamine and is caffeine-free with calming properties that promote relaxation and healthy sleep during stressful periods.
- **Hydration** — an excellent hydrating drink without the dehydrating effects of caffeine. Far preferable to coffee or regular tea during a crisis.



How to use: Brew as ordinary tea. For digestive complaints drink three to four cups per day.

BUCHU

Buchu is one of South Africa's most celebrated medicinal plants, available in health shops, pharmacies and supermarkets in dried, tea and tincture form.

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- **Urinary tract infections** — powerful antibacterial and anti-inflammatory properties make buchu one of the most effective natural treatments for UTIs. During a crisis when access to antibiotics may be limited, buchu tea can provide significant relief.
- **Colds and flu** — natural antiviral properties help reduce the duration and severity of colds and flu.



How to use: One teaspoon of dried leaves per cup of boiling water, steeped for five minutes. Drink two to three cups per day. Important: do not use during pregnancy.

12.1.3 GARLIC

- **Infections** — contains allicin, a powerful natural antibiotic and antiviral compound effective against a wide range of bacteria and viruses.
- **Respiratory conditions and asthma** — boil ten to fifteen garlic cloves in half a cup of milk and drink once a day to clear congestion and support the airways.
- **High blood pressure** — regular consumption has been shown to reduce blood pressure measurably.



How to use: Raw garlic is most potent — crush or finely chop one to two cloves and consume directly or mixed into food.

12.1.4 GINGER

- **Nausea and vomiting** — one of the most effective natural treatments for nausea of any cause — motion sickness, food poisoning, morning sickness.
- **Respiratory infections and asthma** — for asthma relief mix equal amounts of ginger juice, pomegranate juice and honey and swallow one tablespoon two to three times a day.
- **Pain and inflammation** — significant anti-inflammatory effects useful for headaches, muscle pain and joint inflammation.



How to use: Slice or grate fresh ginger into boiling water, steep for ten minutes and drink with honey and lemon.

12.1.5 HONEY

Raw unprocessed honey stores almost indefinitely without refrigeration making it a perfect emergency supply item.

- **Wound care** — applied directly to wounds, cuts and burns it inhibits bacterial growth, reduces inflammation and promotes healing.
- **Sore throats, coughs and asthma** — one teaspoon in warm water three times a day soothes inflammation and suppresses coughing. Before bed take one teaspoon with half a teaspoon of cinnamon to remove mucus and promote sleep.

How to use: Apply raw honey directly to wounds as a dressing. For internal use dissolve one to two teaspoons in warm water or herbal tea. Never give honey to children under one year of age.



12.1.6 MUSTARD OIL

- **Respiratory relief and asthma** — heat mustard oil with a little camphor until lukewarm and gently massage onto the chest and back to open the respiratory tract and restore normal breathing. Repeat several times a day until symptoms subside.
- **Muscle and joint pain** — warm mustard oil massaged into sore muscles and stiff joints provides significant anti-inflammatory relief.



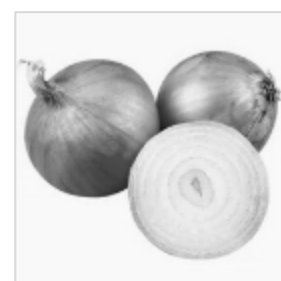
12.1.7 FIGS

- **Respiratory health and asthma** — soak three dried figs in water overnight. Eat the figs in the morning and drink the soaking water on an empty stomach. Continue daily for several weeks for best results.
- **Digestive health** — rich in dietary fibre and natural enzymes that support healthy digestion and relieve constipation.



12.1.8 ONIONS

- **Respiratory conditions and asthma** — powerful anti-inflammatory properties help reduce narrowing of the airways. The sulphur content helps reduce inflammation in the lungs. Eat raw onions to clear the airway.
- **Infections** — natural antibacterial and antiviral properties support the body during infections.



12.1.9 LEMON

- **Immune support and asthma** — squeeze the juice of half a lemon into a glass of water, add honey and drink regularly. People with asthma often have low Vitamin C levels — lemon addresses this. Note: do not use citrus during an active asthma attack as it may aggravate symptoms.
- **Dehydration support** — lemon water with a pinch of salt and a teaspoon of honey is a simple and effective oral rehydration solution for mild dehydration.



12.1.10 SALMON AND OMEGA-3 RICH FOODS

- **Respiratory health and asthma** — Omega-3 fatty acids help the lungs respond better to irritations that cause asthma symptoms. Canned salmon, sardines and tuna are all excellent sources that store well in your emergency supplies.
- **Cardiovascular health** — reduces the risk of heart disease and helps manage blood pressure naturally.



12.1.11 EUCALYPTUS OIL

- **Respiratory congestion and asthma** — place a few drops on a paper towel and hold near the face while sleeping. Alternatively add two to three drops to a bowl of boiling water and inhale the steam deeply.
- **Headaches and muscle pain** — diluted eucalyptus oil applied to the temples relieves tension headaches. Massaged into sore muscles provides cooling anti-inflammatory relief.



12.1.12 COFFEE AND CAFFEINE

Asthma relief — caffeine acts as a mild bronchodilator helping to open constricted airways during an asthma episode. One to two cups of strong hot coffee can provide meaningful relief while longer-term treatment is sought. Black tea provides a similar but milder effect. Important: use as an emergency measure only, not as regular treatment.



12.1.13 TURMERIC

- **Inflammation and pain** — a powerful natural anti-inflammatory and analgesic effective for headaches, joint pain, muscle soreness and general pain management.
- **How to use:** Mix one teaspoon of turmeric powder into warm milk with a pinch of black pepper which significantly increases absorption. Drink once or twice daily.



12.1.14 APPLE CIDER VINEGAR

- **Digestive problems** — one tablespoon in a glass of water before meals relieves indigestion, bloating and acid reflux.
- **Blood sugar management** — has been shown to reduce post-meal blood sugar spikes, particularly beneficial for diabetics with limited access to medication.
- **How to use:** Always dilute before internal use — one tablespoon in a glass of water. For topical use dilute one part vinegar in two parts water.



12.1.15 KANKERBOS (CANCER BUSH) — SUTHERLANDIA FRUTESCENS

Kankerbos is one of South Africa's most powerful and revered indigenous medicinal plants. It grows widely across the Western Cape, Northern Cape and parts of the Eastern Cape and has been used in traditional South African medicine for hundreds of years. Its Afrikaans name — kankerbos — reflects the traditional belief in its ability to fight serious disease, and modern research has increasingly supported what traditional healers have long known.



The plant is recognisable by its bright red-orange flowers and distinctive inflated papery seed pods. It is available across South Africa in dried leaf, tea, tincture and capsule form at health shops, pharmacies and traditional medicine suppliers.

- **Immune support and serious illness** — kankerbos is best known as a powerful immune system booster. It has been widely used to support patients undergoing treatment for cancer, HIV/AIDS and tuberculosis. During a crisis when immune function may be compromised by stress, poor nutrition and exposure to infection, kankerbos provides meaningful immune support.
- **Stress and anxiety** — contains L-canavanine and GABA which have proven calming and anti-anxiety effects. During a prolonged crisis kankerbos tea can help regulate the nervous system and promote emotional resilience.
- **Fever** — has natural antipyretic properties that help reduce fever during infections when conventional fever medication is unavailable.
- **Diabetes management** — research has shown that kankerbos helps regulate blood sugar levels, making it a valuable natural support for diabetics during a crisis with limited access to medication.

How to use: Brew one teaspoon of dried leaves per cup of boiling water, steeped for five to ten minutes. Drink one to two cups per day. Add honey to improve the bitter taste.

Important precautions: Do not exceed the recommended dosage. Do not use during pregnancy or while breastfeeding. May interact with immunosuppressants, corticosteroids and antiretroviral drugs. Do not give to children under twelve without medical advice. Source from a reputable supplier. Kankerbos can also be grown in most South African gardens — ask at your local nursery.

12.2 BUILDING A NATURAL MEDICINE KIT

In addition to your conventional first aid kit, consider assembling a natural medicine kit. The following items are affordable, widely available, store well and cover a broad range of common conditions:

- **Aloe vera plant** — grow one in your garden
- **Rooibos tea** — stock at least 200 teabags
- **Buchu tea** or tincture
- **Fresh garlic** — store in a cool dry place
- **Fresh ginger** — can be frozen for long-term storage
- **Dried figs** — store in an airtight container
- **Onions** — store in a cool dry well-ventilated area
- **Lemons** — stock regularly and rotate
- **Raw unprocessed honey** — stores indefinitely
- **Mustard oil** — available at Indian grocery stores
- **Turmeric powder** — store in an airtight container
- **Apple cider vinegar** — raw and unfiltered
- **Kankerbos** — dried leaves, tincture or capsules from a reputable supplier
- **Eucalyptus essential oil**
- **Coconut oil** — natural antibacterial and antifungal for skin conditions
- **Lavender essential oil** — antiseptic, relieves headaches and promotes sleep
- **Peppermint essential oil** — relieves headaches, nausea and respiratory congestion
- **Canned oily fish** — salmon, sardines, pilchards and tuna for Omega-3



12.3 AN IMPORTANT CAUTION

Natural remedies are genuinely effective for many common conditions. However, they have real limitations: they are not a substitute for prescribed chronic medication; they are not appropriate for serious infections, medical emergencies or conditions requiring surgery; some interact with prescription medications; pregnant women should exercise particular caution with buchu, kankerbos and certain essential oils; children require smaller doses than adults. When in doubt do less rather than more and seek professional medical advice as soon as it becomes available.

12.4 SUMMARY

- **Aloe vera** — burns, skin irritations, wounds
- **Rooibos** — digestive complaints, allergies, anxiety, hydration
- **Buchu** — urinary tract infections, kidney health, colds
- **Garlic** — infections, blood pressure, immune support, asthma
- **Ginger** — nausea, respiratory infections, pain, asthma
- **Honey** — wound care, sore throats, digestive infections, asthma
- **Mustard oil** — respiratory relief, asthma, muscle pain

- **Figs** — respiratory health, digestive health, nutrition
- **Onions** — anti-inflammatory, respiratory, asthma
- **Lemon** — immune support, sore throats, asthma
- **Salmon and Omega-3** — respiratory health, asthma, cardiovascular
- **Eucalyptus oil** — respiratory congestion, asthma, antibacterial
- **Coffee** — emergency bronchodilator for asthma only
- **Turmeric** — inflammation, pain, immune support
- **Apple cider vinegar** — digestive problems, blood sugar, skin infections
- **Kankerbos** — immune support, stress and anxiety, fever, diabetes management
- **Natural remedies supplement but never replace** — conventional medical care

