BONE FRACTURE

SYMPTOMS:

- intense pain in the injured area that gets worse when you move it
- numbness in the injured area
- bluish color, swelling, or visible deformity in the injured area
- bone protruding through the skin
- heavy bleeding at the injury site

FIRST AID:

→ **Stop any bleeding:** If they're bleeding, elevate and apply pressure to the wound using a sterile bandage, a clean cloth, or a clean piece of clothing.

If the injury is bleeding significantly (more than a few drops), then you must attempt to stop it regardless if there is a fracture or not. Significant bleeding from the main artery can lead to death within a few minutes. Controlling the bleeding is a higher priority than addressing a broken bone. Apply firm pressure to the wound with a sterile and absorbent bandage (ideally), although a clean towel or piece of clothing will do in an emergency. Hold it there for a few minutes to encourage the blood to clot at the injury site. Secure the bandage around the wound with an elastic bandage or piece of cloth if you can.

- If the bleeding won't stop from an injured limb, you may have to tie a tight tourniquet above the wound to temporarily cut off the circulation until medical help arrives. A tourniquet can be made of virtually anything that can be secured tight — string, rope, cord, rubber tubing, leather belt, necktie, scarf, tee-shirt, etc.
- If there is a large object penetrating into the skin, do not remove it. It may be clotting the wound and removing it could cause severe bleeding.

→ **Immobilize the injured area:** If you suspect they've broken a bone in their neck or back, help them stay as still as possible. If you suspect they've broken a bone in one of their limbs, immobilize the area using a splint or sling.

After the injured person is stabilized, it's time to immobilize the broken bone if you anticipate a wait of an hour or longer for emergency medical personnel. Immobilizing it can help reduce the pain and protect the broken bone from further injury caused by inadvertent movement. If you don't have proper training, don't try to realign the bone. Attempting to align broken bones improperly can lead to further damage to blood vessels and nerves, leading to potential bleeding and potential paralysis. Keep in mind that splints only work for limb bones, not those of the pelvis or torso.

- The best method of immobilization is to make a simple splint. Place a piece of stiff cardboard or plastic, a branch or stick, a metal rod, or rolled up newspaper/magazine on either side of the injury to support the bone.[10] Tie these supports together firmly with tape, string, rope, cord, rubber tubing, leather belt, necktie, scarf, etc.
- When splinting a fractured bone, try to allow movement in the adjacent joints and don't secure it too tight — allow appropriate blood circulation.
- Splinting may not be necessary if emergency services are coming right away. In this case, splinting may cause more harm than good if you don't have the appropriate training.

→ **Apply cold to the area:** Wrap an ice pack or bag of ice cubes in a piece of cloth and apply it to the injured area for up to 10 minutes at a time.

Once the broken bone is immobilized, apply something cold (preferably ice) to it as soon as you can while you wait for the ambulance. Cold therapy has many benefits, including numbing the pain, reducing inflammation / swelling and reducing bleeding by causing the arteries to constrict.[11] If you don't have ice handy, consider using frozen gel packs or bags of vegetables, but make sure to wrap anything cold in a thin cloth in order to avoid ice burn or frostbite.

- Apply ice for about 20 minutes or until the area is completely numb before removing it. Compressing it against the injury may help reduce swelling even more as long as it doesn't increase the pain.
- While applying the ice, make sure the broken bone is elevated in order to combat swelling and slow down bleeding (if applicable).

→ **Keep calm and watch for signs of shock:** Help them get into a comfortable position, encourage them to rest, and reassure them. Cover them with a blanket or clothing to keep them warm.

Breaking a bone is very traumatic and painful. Fear, panic, and shock are all common reactions, but they can have negative consequences for the body, so they must be controlled. As such, calm yourself and/or the injured person by reassuring him that help is on the way and the situation is under control. As you wait for help, cover the person to keep him warm and hydrate him if they are thirsty. Keep talking to him to distract him from focusing on his injury.

- Signs of shock include: feeling faint / dizzy, pale complexion, cold sweats, rapid breathing, increased heart rate, confusion, irrational panic.[12]
- If it looks like the person is in shock, lay him down with his head supported and elevate his legs. Keep him covered with a blanket or jacket, or even a table cloth if those things are not available.
- Shock is dangerous because blood and oxygen are routed away from vital organs.[13] This physiological state, if left untreated, can ultimately cause organ damage.

→ **Get professional help:** Call 911 or help them get to the emergency department for professional care.

→ **Consider Pain Medicine:** If the wait for emergency medical personnel is longer than an hour (or you anticipate it being a long wait), then consider taking / giving some medication, if you have any, to control the pain and make the wait more tolerable. Acetaminophen (Tylenol) is the painkiller most appropriate for broken bones and other internal injuries because it doesn't "thin" the blood and promote more bleeding.[14]

- Over-the-counter anti-inflammatories such as aspirin and ibuprofen (Advil) are helpful for pain and inflammation, but they inhibit blood clotting, so they aren't a good idea for internal injuries such as broken bones.
- In addition, aspirin and ibuprofen should not be given to young children, because they may cause dangerous side effects.