Bike Kitchen Basic First-Aid

This is a brief and basic how-to for emergency situations that could arise in the shop. Information was taken from medical board approved instructions on About.com (except where noted) and contains some links for more information within the website.

This document covers the following topics (linked):

- How to Control Bleeding
- <u>Amputations</u>
- Impaled Objects
- Puncture Wounds
- <u>Seizures</u>
- Hands Only CPR (CCR)

Note about calling 911 from cell phones: In San Francisco County, dialing 911 from a cell phone will connect you to CA Highway Patrol Dispatch instead of directly to the city's emergency dispatch. This will typically add at least 10 minutes to your ambulance's dispatch time. **If an ambulance is required you can call 415-533-0123 instead.** This will directly connect you to the SFPD dispatch where an ambulance will be dispatched immediately.

How to Control Bleeding:

Regardless how severe, all bleeding can be controlled. If left uncontrolled, bleeding may lead to <u>shock</u> or even death. Most bleeding can be stopped before the ambulance arrives at the scene. While you're performing the steps for controlling bleeding, you should also be calling for an ambulance to respond. Bleeding control is only part of the equation. For tips on summoning an ambulance, check out <u>Calling for Help</u>.

1. The first step in controlling a bleeding wound is to plug the hole with direct pressure. Blood needs to clot in order to start the healing process and stop the bleeding. Just like ice won't form on the rapids of a river, blood will not coagulate when it's flowing.

Use sterile gauze if possible. If you don't have gauze, terrycloth towels work almost as well. **If the gauze or towel soaks through with blood, add another layer.** *Never* **take off the gauze.** Peeling blood soaked gauze off a wound removes vital clotting agents and encourages bleeding to resume.

- 2. Elevate the wound above the heart. By elevating the wound, you slow the flow of blood. As the blood slows, it becomes easier to stop it with direct pressure. Remember, it must be above the heart and you must keep direct pressure on it.
- 3. Do not apply a tourniquet! They should almost never be used, and can cause severe

tissue damage. Tourniquets should only be used a desperate last resort in life-threatening situations.

Amputations:

Amputations come in all shapes and sizes. Whether it's a leg amputation, or a finger amputation, the treatment is exactly the same. React quickly and there's a good chance the amputated part can be reattached.

Here's How:

- **1. Stay Safe**. If you are not the victim, practice <u>universal precautions</u> and wear <u>personal protective equipment</u> if available.
- 2. <u>Call 911</u> immediately. If calling from a cell phone, be sure to tell the operator your location as clearly as possible.
- Make sure the victim has an airway and is breathing if not, begin CPR. Control bleeding on the stump (the part of the amputated limb still attached to the victim). Use pressure directly on the wound and elevate the limb above the heart if possible. Do not use a tourniquet unless medical care will be delayed for several hours.
- 4. Collect the amputated limb and put it in a bag. Place the amputation on top of ice. **Do not** wash the amputation or put it in water. **Do not** put the amputation *in* ice, just on top.
- 5. If an ambulance is not available, get the victim to medical care as soon as possible.
- 6. Watch for signs of <u>shock</u>.

Tips:

1. Do not let the victim eat or drink anything. Reattaching an amputation requires surgery. Doctors do not want surgery patients to have anything in their stomachs during the procedure

Impaled object:

- 1. <u>Call 911</u>. Because of their complicated nature, even seemingly minor impaled objects require emergency medical response.
- 2. DO NOT REMOVE IMPALED OBJECT! Impaled objects create a puncture wound and then tamponade (put pressure on) that same wound, controlling bleeding. However, as with every rule, there are exceptions. Impaled objects may be removed if:
 - the victim needs CPR and the object is in the way
 - the object is in the way of the victim's airway

If an impaled object must be removed, follow the steps to control bleeding.

- 3. If an ambulance is not available or the victim must be moved, it will be necessary to secure the object. Start by shortening the object if possible. The more of an object that sticks out of the body, the more leverage it has to do damage to surrounding tissues.
- 4. After the object is as short as possible, secure it to prevent movement. The more movement of the impaled object, the more soft-tissue damage it does and the more bleeding it will cause.

Puncture wounds:

Puncture wounds can be deep or shallow and large or small. Treatment depends on the severity of the puncture wound and the size of the object creating it. Bleeding control and infection are the priorities.

Here's How:

- 1. <u>Control bleeding</u> before anything else. Putting pressure directly on the puncture wound while holding it above the level of the heart for 15 minutes should be enough to stop bleeding. If not, try using <u>pressure points</u>. <u>Tourniquets</u> should be avoided unless medical care will be delayed for several hours.
- 2. Deep puncture wounds (or those of unknown depth) to the abdomen, back, pelvis, thigh, chest, or if bleeding will not stop, <u>call 911</u>. Also call 911 for puncture wounds of any depth to the neck.

Holes in the chest can lead to <u>collapsed lungs</u>. Deep puncture wounds to the chest should be immediately sealed by hand or with a dressing that does not allow air o flow. Victims may complain of <u>shortness of breath</u>. If the victim gets worse

after sealing the chest puncture wound, unseal it.

3. Once bleeding has been controlled, wash the puncture wound with warm water and mild soap (<u>see illustration</u>). If bleeding starts again, repeat step two.

Seizures:

Remain calm. Anxiety is contagious, but so is serenity. As long as you are calm, other bystanders will follow suit.

- Note the time. It's important to time the seizure from the beginning of convulsions to the end of convulsions. A seizure lasting more than five minutes will be treated differently than a shorter one. Seizures look very scary and unless a clock or watch is used, it can be easy to overestimate the duration of the seizure.
- 2. Clear hard or sharp objects away from the vicinity of the victim. Seizures can be violent enough to injure a victim.
- 3. Loosen tight clothing around the neck, especially ties or collars. These items may restrict breathing or block the airway.
- 4. Pad under the head with a pillow or rolled-up jacket.
- If possible, roll the victim to his or her left side. This way, sputum or vomit will drain out of the mouth away from the airway. DO NOT PUT ANYTHING IN THE VICTIM'S MOUTH! Seizure victims do not swallow their tongues.
- If the seizure activity (convulsions) last more than five (5) minutes, <u>call 911</u>. Check for a medical bracelet on the viciim that can offer any additional info to 911 dispatcher.
- 7. After the seizure, the victim will slowly regain consciousness, if he or she does not begin to wake up within a few minutes, <u>call 911</u>.
- 8. If the victim stops breathing after the seizure, <u>call 911</u> and begin <u>CPR</u>.

"Hands Only" CPR (CCR):

The American Heart Association recently announced that "hands only" CPR is **more** effective than mouth to mouth resuscitation (300% in some university reports), and it is the recommended method of CPR in situations where an adult suddenly collapses. **Do not be afraid to administer CPR. You can only help.**

- 1. Try to wake the victim by gently shaking their shoulder. If the victim is unconscious and not breathing, begin CPR immediately. **Do NOT check for a pulse.**
- 2. Push hard and fast in the center of the chest. Using both hands, square your shoulders directly over the center of the victim's chest and use your body weight to push down hard about twice per second until medical help arrives.

Notes:

-Administering CPR is VERY tiring. Administer compressions uninterrupted for as long as possible, and trade off if there is another person available.

-There is about a 1/3 chance that you will crack the victim's ribs or sternum while administering CPR. Do not be alarmed. You are still saving their life!