

FIRST AID FOR LABORATORY ACCIDENTS

Knowing what to do immediately if an accident occurs can help to reduce suffering and the consequences of serious accidents. In some situations, first aid can be lifesaving, example, the control of bleeding. It can also prevent an injured person's condition from worsening, example, by protecting and treating wounds, placing a person in the best possible position, offering reassurance, and seeking immediate assistance.

Therefore, laboratory workers should receive a basic practical training in first aid, with particular attention being paid to the types of accidents, which may occur in the laboratory. They should also know what emergency action needs to be taken if an outpatient or blood donor collapses in the laboratory.

First Aid Equipment

An adequately equipped first aid box should be kept in the laboratory, in a place that is known and accessible to all members of staff. The box should be clearly identified by a white cross on a green background.



Recommended contents of laboratory first aid box include:

- 1• Clear instruction on how to apply emergency treatment of cuts, bleeding, heat burns, chemical burns, chemical injury to the eye, swallowing of acids, alkalis and other poisonous chemicals, treatment fainting, electric shock, and how to perform emergency resuscitation.
- 2• Sterile medicated dressing to cover wound;
- 3• Absorbent cotton wool;
- 4• Triangular and roll bandages;
- 5• Sterile adhesive water proof dressing in a variety of sizes;
- 6• Sterile eye pads;
- 7• Roll of adhesive tape;
- 8• Scissors;
- 9• Sodium bicarbonate powder;
- 10• Boric acid powder;
- 11• 5% acetic acid;
- 12• Magnesium hydroxide suspension.

FIRST AID KIT



Section 1

1/2 or 1 Square Yard Gauze



1 Box
(goldenrod or yellow)

24" x 72" or 1728 Square Inch Gauze Compress



2 Boxes
(goldenrod or yellow)

Triangular Bandage



1 Box or Package

Instant Cold Pack



1 Pack or Box

CPR Mask & Glove



2 Mask w/ Glove

Section 2

3" x 3" Gauze Sponge



1 Packet

4" x 4" Gauze Sponge



20 Packets

Eye Dressing



2 Packets

Adhesive Tape (Clear or Paper)



1 Roll

2", 3" and 4" Conforming Stretch Gauze Bandage Roll



1 Roll Each Size

Latex-Free or Nitrile Gloves



3 Pairs

Eye Wash Irrigation Solution



1 Bottle
(Note: Expiration Date)

1/2" and 1" Non-Allergenic Paper Tape



1 Roll Each Size

Section 3

1" Sheer Adhesive Strip Bandage



45 Bandages

Assorted Small Adhesive Bandage



25 Bandages

Red Bio-Hazard Disposal Bag



2 Bags

Eye Cup



1 Cup

Safety Pin



2 Pins

Antiseptic Swab



6 Swabs

Alcohol Swab



6 Swabs

Cotton Ball



20 Cotton Balls

I-Emergency treatment of cuts and bleeding

If the cut is small:

- Wash with soap and water;
- Apply pressure with a piece of cotton wool;
- Disinfect the area with a skin antiseptic such as tincture of iodine;
- Cover with a waterproof dressing;

If the cut has been caused by contaminated glassware:

- Encourage bleeding for two minutes;
- Seek medical attention.

II-Emergency treatment of burns

A- Heat burns:

- Immediately immerse the burnt area into cold water or apply a pad soaked in cold water to the affected part for 10 minutes.
- Cover with a dry dressing.

Note: If the burn is severe, look for medical treatment.

B- Chemical burns of the skin

Wash immediately with large quantities of water and neutralize with suitable chemicals as follows:

- a. If an acid burn, neutralize with sodium bicarbonate
- b. If an alkaline burn, neutralize with boric acid powder.
- c. Seek medical attention.

III- Chemical injury to the eye.

- Wash the affected eye as quickly as possible with large quantities of running water.
- Neutralize with suitable chemicals as follow:
 - a. If an acid injury, neutralize with 5% sodium bicarbonate solution.
 - b. If an alkaline injury, neutralize with 5% acetic acid.
 - c. Immediately seek medical attention.

IV-Emergency treatment for poisoning

a- Swallowing of an acid or alkali:

Immediately rinse the mouth well with water and neutralize with suitable chemicals as follows:

- a. If acid has been swallowed, neutralize by drinking 8% magnesium hydroxide suspension.
- b. If an alkali has been swallowed, neutralize by drinking lemon juice or 5% acetic acid.
- c. Drink three or four cups of water.
- d. Seek medical attention.

Note: When acid or alkali has been swallowed do not encourage vomiting.

b- Swallowing of other poisonous chemicals

- Rinse out the mouth well with water.
- Depending on the chemical swallowed, take a suitable chemical antidote under medical supervision.

Note: Always seek medical advice and treatment after swallowing toxic or harmful chemicals.

c- Swallowing of Infected materials

- Immediately seek medical treatment.