

Realistic First Aid

I once remembered that the BSA 25 years ago used theatrical makeup to teach First Aid. I decided to bring realism back into teaching First Aid. (Woodbadger's take note: "Teaching First Aid, by Mart P. Bushnell", National Stock Number 7316 ©Boy Scouts of America).

Summary:

Very realistic-looking wounds and burns can be created from clown / theatrical makeup (face-white, black, red, and blue); talcum powder; Knox gelatin (to simulate skin); chicken bones (to simulate broken bones); broken thin Plexiglas sheets (to simulate broken glass); charcoal/graphite (added for 3rd-degree burns); cocoa powder, corn starch, and food coloring (to simulate blood).

Why use theatrics to create realism?

Lectures are boring. Providing a complete picture of an accident scene improves the Scout's ability to learn First Aid, and by associating the accident to the situation teaches safety and prevention. Using **REALISTIC FIRST AID** will allow the Scout to recognize the injuries for himself and help get conditioned against seeing the pain and injury in actual situations. (Much better than saying, "Pretend like Jeff has a compound fracture of the upper arm...") Also, by actual practice, the long-term memorization is vastly improved.

The Recipes:

SHOCK / HEAT EXHAUSTION

1. Use white clown grease paint to whiten the face, arms and hands until the healthy pink appearance disappears. Do NOT put so much on that the skin is completely white like that of a clown.
2. Add a touch of blue to the lips and earlobes.
3. Use a "fixer" spray or dust lightly with talcum to keep the makeup from smearing.
4. Spray a very light coating of water on the face to make it cold and clammy.

HEAT STROKE

1. Sparingly apply a very thin white grease paint coating to the face. Do not add so much that it is very noticeable. This is needed to help thin the red grease paint and make it easier to apply a thin red coat.

2. Use red grease paint sparingly to "flush" the face. Put just enough on to make the person look embarrassed, not the devil.
3. Use a "fixer" spray or dust lightly with talcum to keep the makeup from smearing.

DEEP BRUISES

My preferred method is to use burgandy colored hairspray, sprayed at a distance of two feet or more (to prevent too much from being applied and running/dripping), to create a very realistic bruise. Otherwise, grease paint can be used to create a realistic looking bruise.

1. Sparingly apply a very thin white grease paint coating to the face. Do not add so much that it is very noticeable. This is needed to help thin the red and blue grease paint and make it easier to apply a thin coat.
2. Use red and blue grease paint to form the bruise. Taper the edges into the very thin white grease paint to blend into the natural color of the skin.
3. Use a "fixer" spray or dust lightly with talcum to keep the makeup from smearing.

1ST DEGREE BURN

1. Sparingly apply a very thin white grease paint coating to the area. Do not add so much that it is very noticeable. This is needed to help thin the red grease paint in the edges to blend into the non-burned areas.
2. Apply the red grease paint to the center area to where it looks like severe sunburn. Without applying any more red, taper the red on the edges to slowly blend into the natural color of the skin by smearing the red into the thin white base layer on the edges.
3. Use a "fixer" spray or dust lightly with talcum to keep the makeup from smearing.

2ND DEGREE BURN

1. Create a large 1st degree burn by following the procedure above.
2. Add thin slices of white grapes on the reddest parts to simulate blisters. White grape skins can be used to simulate broken blisters.

3RD DEGREE BURN

1. Create a large 2nd degree burn by following the procedure above.
2. A layer of flesh-colored gelatin is added to the areas where you want to simulate the tearing and scarring of flesh. Work with the gelatin before it begins to set.
3. Add charcoal or graphite to the top ridges of the gelatin to simulate seared flesh. Black grease paint will do also.
4. Add the fake blood to the deep valleys in the gelatin.

5. **Burning a hole in the article of clothing and burning feathers nearby adds to the realism. (Note: My favorite choice is the upper arm. Burn the sleeve of a worn-out short-sleeve shirt or T-shirt and create the fake 3rd-degree burn there.)**

DEEP CUTS

1. **Create a layer of flesh-colored gelatin where the fake cut is to be. It is important to match the color of the skin as much as possible and make the layer smooth and tapered on the edges. The idea is to form some fake skin 1/4 inch thick that is tapered to the edges so that it is not noticeable where the fake skin starts.**
2. **Before the gelatin sets, using something not sharp, create a fake cut or gash into the gelatin.**
3. **Add plenty of fake blood. (It is possible to hide a small clear plastic tube to squirt the fake blood from the cut. The smallest clear tubes like those used in fish tanks are OK. I use the small oxygen lines used for patients. The oxygen lines are found at drug stores)**
4. **Dulled knives, broken thin Plexiglas sheets, sticks,... can be inserted into the fake cut to add more realism.**
5. **The Vaseline/flour putty fake skin can be used in place of the gelatin fake skin if squirting blood is not needed. (the flour putty will not hold the clear plastic tubes in place)**

COMPOUND FRACTURES

1. **Create a layer of flesh-colored gelatin where the fake cut is to be. It is important to match the color of the skin as much as possible and make the layer smooth and tapered on the edges. The idea is to form some fake skin 1/4 inch thick that is not noticeable where it starts.**
2. **Break a large chicken bone to get bone fragments and a small stump of a bone. Before the gelatin sets, add the bone stump and fragments into the gelatin to look like the bone broke and cut up through the skin.**
3. **Add plenty of fake blood. (It is possible to hide a small clear plastic tube to squirt the fake blood from the cut. The smallest clear tubes like those used in fish tanks are OK. I use the small oxygen lines used for patients.)**
4. **The Vaseline/flour putty fake skin can be used in place of the gelatin fake skin if squirting blood is not needed. (the flour putty will not hold the clear plastic tubes in place)**

FAKE SKIN FROM GELATIN

The hardest part is to match the skin color. I have had very little experimentation to match people with very dark skin, so I apologize ahead of time. But, if someone finds out how to match very dark skin, I would appreciate hearing from you.

1. **Fill a small clear glass with hot water. Add food coloring (red with a little green) until the water is the color of the person's skin. It is OK if the water is slightly more red than the person's skin because usually the hurt area is inflamed and red. Be careful not to add too much coloring to the water. The water should be only tinted.**
2. **Add the heated colored water slowly to unflavored Knox gelatin to where the gelatin just dissolves. The gelatin must be very thick and fast setting in room temperature.**
3. **Judge the color of the gelatin to the skin color. Usually one gets the colored water is the right color, but is too dark after adding the gelatin and thus has to be diluted with hot water.**
4. **Allow the gelatin to cool to where it can be placed on the person without scalding the person. Taper the edges to blend into the skin when applying.**

NOTE: The gelatin fake skin is only good for an hour before it dries out too much. If it needs to last longer, try spraying water on the gelatin wound every 10 minutes or so to keep it from drying out.

FAKE SKIN FROM FLOUR / VASELINE PUTTY

For Cub Scouts, this is a good simple method of creating fake cuts.

1. **Mix Vaseline and white flour together in your hands until it forms a putty. A spoon is helpful in mixing the Vaseline into the flour, and scraping it off the palm to form a ball.**
2. **Slowly mix cocoa powder into the putty until it matches the skin color (it usually does not take much cocoa powder). For those of African heiratage, add finely ground charcoal with cocoa powder to match the skin color.**
3. **Be sure to taper the edges to blend into the skin when applying.**

FAKE BLOOD

The problem with using just red food coloring and water is that it is too thin, too transparent, and stains skin and clothing. Adding cocoa powder will make it thicker and opaque, and adding corn starch will prevent staining because the starch is stained ahead of time instead.

1. **Mix water, red food coloring, cocoa powder, and corn starch until the correct color and thickness is obtained.**
2. **I have substituted honey or glycerin instead of water where I do not want the fake blood to dry out as fast. If the blood it to look clotted, add knox gelatin to thicken the fake blood.**

EMBEDDED OBJECTS

For small piercing wounds like a fishhook, any loose skin can be glued around the item. Since rubber cement is dissolved with Vaseline, this method of embedding objects does not work with the fake skin made with the flour putty. The area must be an area that has loose skin so that movement does not pull the glued area apart (outside elbow with arm out straight, back of hand, inside forearm next to elbow crease, neck,...). My favorite is to simulate a fishhook stuck deep inside a person's neck just below the ear, leaving the fishing line and pole still attached to the hook for realism.

- 1. Wash off any oils (can use alcohol swab), apply rubber cement and allow to dry fully.**
- 2. Place the fishhook (without barb and end dulled using a file), wire or thin item onto the area and pinch the skin around the item, gluing the skin to skin around the item.**
- 3. Add fake blood to the fake entry and exit wounds. In the case of a fishhook, it is possible to not have an exit wound.**

If the area does not have much loose skin and rubber cement does not hold, one can use medical adhesive found at theatrical supplies. The skin is pinched around the item and the adhesive is applied to glue the skin around the item. Naptha is used to desolve the medical adhesive.

MISCELLANEOUS INFO

- 1. Cold cream or Vaseline removes the grease paint makeup. Use either to wipe off the grease paint before using soap and water. The gelatin peels off and the remaining gelatin dissolves in water fairly easily.**
- 2. I also dabble with creating latex fake wounds. By accident, I found that applying a thin layer of clear latex to the skin and allowing it to dry before adding the gelatin fake skin makes it easier for the person to remove the gelatin during clean-up.**
- 3. Vaseline also dissolves dried rubber cement if given enough time.**
- 4. Colored hairspray is removed with soap and water.**