Wound Care

What You Need

This exercise should be facilitated like a high-school chemistry lab. There should be two participants per set of equipment. Each group of two participants get the following set of materials:

From Top Left to Bottom Right: 2 rolls of gauze, bandaids, triangular bandage, napkins, water bottle with a hole in the cap, adhesive wrap, a package of “wet chemical” (i.e. small condiment package of vinegar/cream/milk), a package of “dry chemical” (i.e. small condiment package of pepper/salt/sugar), plastic fork and knife, apple, Styrofoam plate, ice pack.

Not Pictured but required: Gloves, Mannequin (Prestan works best) with lungs

The idea behind “The Apple & The Mannequin” is to provide a hands-on interactive way to facilitate a discussion with participants about wound care. Half of the wounds will be inflicted upon and cared for using the apple as the subject. The other half of the wounds will be inflicted upon and cared for using the Mannequin as a subject. The instructor will lead the entire class of “lab partner” groups through the following topics of discussion for each type of wound: causes, prevention, signs & symptoms, when to call EMS, and how to care for each wound.

This activity lends itself to a natural flow in a class discussion about these topics for each wound. Participants will be required to demonstrate causes for the wounds (on the apple or the mannequin), which prompts a class discussion about causes and prevention. Then the participant must look at the injury they have caused, identify the signs and symptoms, decide whether to call EMS, and use the materials at their disposal to care for that particular wound. The instructor leads the groups through the various topics and asks probing questions.

The idea is to make this activity as fun as possible. I use the term “apple surgery”, “scalpel” for the knife, and “retractor” for the fork. Participants are encouraged to also follow along in the book for reference for each type of wound.

Wound Care Topics:

To Be Performed on the Apple:
- Bruise
- Scrape
- Cut - not requiring stitches
- Cut - requiring stitches
- Dry chemical on skin
- Wet chemical on skin
- Impaled Object
- Partial Amputation
- Full Amputation

To Be Performed on the Mannequin:
- Head injury/skull fracture
- Eye injury
- Ear injury
- Nosebleed
- Blunt chest injury/flail chest
- Penetrating Chest Injury
- Crush Injury

The Apple & The Mannequin
Developed by Emily Stang
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Example of Facilitator’s Questions using Bruise as an example (Similar set of questions will be applied to all topics)

1. Instruct the group to bruise the apple (participants will hesitate at first and then slam their apples on the tables, which they seem to enjoy). Discuss other causes and prevention of bruises
2. Instruct group to feel the area they bruised, list signs & symptoms. Discuss what a bruise is and when to call EMS for a bruise
3. Ask them to use one of the objects in front of them to treat bruise. Please note: People will usually begin to use the icepack and forget to put a barrier between the skin and the ice. Discuss the importance of a barrier to between ice and skin.

Scrapes/Minor Cuts/Infection

The juice from the apple can be compared to blood. The water bottle is used for cleaning the wounds, the gauze for drying the wound and a Bandaid placed over the wound, which fosters a discussion regarding infection.

Cuts that Require Stitches

Participants are asked to create a cut that doesn’t require stitches before creating a cut that does require stitches. This allows them to identify what factors to consider when decided if their wound requires stitches.

Dry & Wet Chemicals

The pepper is poured on the skin of the apple. Participants discuss why we brush off dry chemicals before rinsing with water. Participants brush off excess chemical with a napkin and then rinse off the rest of the chemical with the water bottle. The same exercise is repeated with the “wet chemical” (vinegar/cream/milk package) and participants immediately flush with water.
Impaled Object

The knife is used to inflict an impaled object. Gauze is used to secure the impaled object and the adhesive wrap is used to secure the gauze in place.

Note: Once participants have secured the impaled object, ask them what they would do if that knife was located in the middle of someone's chest and that person had stopped breathing, would they take it out then?

Amputations

Participants must create a partial amputation. Participants discuss that we don’t remove it the rest of the way and participants demonstrate putting it back in place and use the gauze to bandage the apple and hold it in place.

For a complete amputation, the participants must decide what to focus their care on first, the apple or it's “missing limb”. Participants use gauze to stop the “bleeding” from the severed limb of the apple. The instructor tells participants their apples are going into shock by having their apples “shiver” and tell them their apple just “vomited” out apple sauce. Participants must care for the apple by treating for shock, wrapping the triangular bandage around the apple to “keep it warm”, and by reassuring the apple. Participants can then be told by the instructor that their apple has stopped breathing and they simulate CPR with two fingers on the apple. This facilitates the discussion about what is more important to care for first, the person or the amputated limb.

Once the apple has been treated for shock, participants take the amputated apple slice and wrap it in gauze and then place it in plastic (one of their gloves can be used as a makeshift plastic bag) and then participants place the amputated limb on ice.
The Mannequin

One mannequin with lungs is placed in an upright position on a chair with the two “lab partners” behind their mannequin. Participants are encouraged to brainstorm various items that could cause the various injuries and to mime using them on the mannequin. (i.e. a hammer to cause a head injury and then acting out an imaginary hammer falling on the mannequin’s head)

Head Injuries

This head bandage can be applied to the mannequin head. This is easier than practising on each other as some people are uncomfortable having things on their head and some people wear head dressings.

Tooth Knocked Out

The tooth being knocked out can be discussed and participants can have the mannequin “bite down” on gauze. If milk packages were used as a “wet chemical” during the Apple activities, the packages can be where participants pretend to place the removed tooth.

Nosebleeds

The proper care for nosebleeds can be demonstrated on the mannequin. This helps to solidify this knowledge as many participants demonstrate the “improper treatment” before being introduced to the current treatment method.

Penetrating Chest Injury

The concept of pneumothorax can be demonstrated by opening the mannequin’s chest and using your hand to demonstrate the pressure building up around the lungs, causing them to collapse.
The Apple & The Mannequin: Having fun and keeping participants engaged while keeping the material appropriate for sensitive participants

The idea behind this activity is to have fun with the topic of wound care and keep participants engaged while also ensuring that the topics are not too graphic for those who may be upset by the discussion of wounds. It is easy to draw similarities between the apple and human skin without the participant having to cope with makeup or fake blood or upsetting pictures. Many participants really enjoy the act of creating the wounds themselves (slamming the apple on the table to bruise it) and the instructor can encourage groups to hold up their apples so everyone can look at either the wounds or treatments created by other groups. The pacing is important with this activity and once an instructor gets used to the flow of topics, it can be kept at an energizing pace without moving too fast. I have often complete this activity in 45-60 minutes, depending upon the group.

Feel free to add your own flair to this exercise and revise it in a way that works for your classroom and teaching style. I would love to get feedback on this activity and am excited to see how it evolves with other creative minds applying it in their classrooms.