Activity 5.1.2: Burn Unit

Introduction

The ambulance speeds through the streets, sirens wailing and lights flashing. You are in and out of consciousness, but you can feel people working around you. You remember the fire, but you have no idea how it started. You remember your brother calling out from his upstairs bedroom. You remember wrapping him in a blanket and flying down the stairs through the flames. “He is OK,” you tell yourself as the EMTs continue to work. You are starting to wonder how you are doing.

At the hospital they tell you that you have suffered severe burns and smoke inhalation. You have second degree burns over 10% of your body and third degree burns over another 5%, mostly on your hands. Your hands are bandaged up and oddly, seem to be the only part of your body that does not hurt. You are receiving fluids by IV and antibiotics directly on the skin. You will have to spend some time in the burn unit while the staff decides if your hands will require skin grafts.

What happens when a vital organ such as the skin is compromised? In this activity, you will explore types of skin burns and relate the damage in each type to how overall function of the body will be affected. You will also research the many biomedical professionals who play a role in burn care and burn rehabilitation. As you reflect on your experience in the burn unit, you will describe the way in which burns impact the body, how they are treated and how various health care professionals help a burn victim on the road to recovery.

Procedure

1. With your partner, investigate the system of classification of burns. You will use information you find about first degree, second degree, third degree and fourth degree burns to modify the skin picture you created in Activity 5.1.1.
2. Use the following websites to assist your investigation. Take notes in your laboratory journal.

* Lucille Packard Children’s Hospital at Stanford: Burns <http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/burns/classify.html>
* National Library of Medicine – Medline Plus: Burns (Try the Interactive tutorial) <http://www.nlm.nih.gov/medlineplus/burns.html>

1. With your partner, decide on a way to label the areas of the skin that are damaged in each type of burn. For each type of burn, highlight the name of the burn and the skin layers that are affected in a color other than yellow and place on your picture.
2. In your laboratory journal, describe how each type of burn would affect the functions of the skin. Think about which layers and accessory structures have been damaged and describe how this damage can impact overall health. Refer to the list of skin functions you made in the previous activity.
3. Answer conclusion questions 1 and 2.
4. Imagine you are now settled into the burn unit at the local hospital. You know you have a long recovery ahead of you, but you are encouraged by the great team assembled to help you get better. Research the role of each member of the team and take notes on each career in your career journal.

* Burn care nurse
* Anesthesiologist
* Reconstructive surgeon
* Physical therapist
* Psychologist

**Part 1: Developing Your Story**

1. Choose one member of your team (or more) to be your patient(s). Decide/create the following:
   1. The kind of burn (1st, 2nd, 3rd or 4th degree)
   2. The story of how the patient got burned (you’ll need to tell the story to the physician and it must match the kind of burn)
2. Create the burns on your victim. Make them as realistic as possible. You’ll need to research how to do burn make-up, bring in the supplies and use the supplies to create realistic looking burns on your victim.
3. Prep your victim to tell his or her story and get ready to diagnose/treat a patient.

**Part 2: Treating Your Victim**

1. Each team’s victim will be traded with another team. At that point, the students who are not playing victims will take on the role of ER staff members.
2. You will research how to treat your victim. Once you are ready, you will present me with your victim’s story and how you would go about diagnosing and treating it.

Conclusion

1. Examine why a person with third degree burns may feel limited or no pain.
2. Explain how the homeostasis in the body may be disturbed by 2nd degree burns.
3. Explain why it is wise to give a burn victim “broad-spectrum” antibiotics.
4. How can pain be considered a protective mechanism?