

**MANCHESTER REGIONAL HIGH SCHOOL**

**HEALTH EDUCATION 3**

**REVISED & ADOPTED  
OCTOBER 2017**

**Manchester Regional High School Board of Education**

**Mrs. Ellen Fischer, President, Haledon**

**Mr. Douglas Boydston, Vice-President, Prospect Park**

**Mr. Michael Boyle, Haledon**

**Mr. Jeffrey Fischer, Haledon**

**Mrs. Cynthia Fusco, North Haledon**

**Mr. Paul Gorga, North Haledon**

**Mr. Valdo Panzera, North Haledon**

**Mrs. Maria Sole, North Haledon**

**Mr. John Vander Molen, Prospect Park**

**Administration**

**Dr. Miquel Hernandez, Superintendent of Schools**

**Mr. John Serapiglia, Business Administrator**

**Dr. Richard J. Ney, Principal**

**Ms. Colleen Brogan, Assistant Principal**

**Mr. Colleen Dorn, Assistant Principal**

**Mrs. Lynne Crawford, Director of Special Services**

**Supervisor of PHYSICAL EDUCATION / HEALTH**

**Mr. Rande Roca**

**Curriculum Committee for Physical HEALTH 3**

**Mr. Rande Roca**

**Ms. Cindy Miller**

**Mr. Richard Broderick**

**Mrs. Myrcee Cullen-Gottschall**

**Miss Denise Weinberg**

### Course Description: Health Education III

Injuries are one of the most serious public health problems. Injuries are the leading cause of death and disability in children and young adults. They destroy the health, lives, and livelihoods of millions of people.

Because of the size and magnitude of the injury problem, everyone must expect sooner or later to be present when an injury or sudden illness strikes. The outcome of such misfortune frequently depends not only on the severity of the injury or illness, but on the first aid rendered. Therefore, every person should be trained in first aid.

First aid is the immediate care given to the injured or suddenly ill person. First aid does not take the place of proper medical treatment. It consists only of furnishing temporary assistance until competent medical care, if needed, is obtained, or until the chance for recovery without medical care is assured. Most injuries and illnesses require only first aid care.

Properly applied, first aid may mean the difference between life and death, rapid recovery and long hospitalization, or temporary disability and permanent injury.

Course Data:

Length of Course: One marking period

Credits: One and one quarter (1 1/4)

Periods per week: Five

Classification: Required

Prerequisite: Health Education I and Health II

**GRADING STRUCTURE**

Benchmark for mastery of course content is 65%; content mastery for students with IEPs may be less than the Board of Education approval minimum for regular education students.

Evaluation:

The purposes of evaluations are to provide information about progress. Knowledge of the material presented will be determined by utilizing tests, homework assignments, class participation, daily notes from class lecture and audio-visual presentations and student projects.

**Manchester Regional High School**

Course Title: Health Education III - First Aid and CPR

Course Proficiencies:

Upon completing a course in First Aid and CPR, the student will be able to:

1. perform a scene survey.
2. perform a primary survey of the victim.
3. phone the emergency medical services (EMS) system for help.
4. perform a secondary survey of the victim.
5. recognize a breathing emergency.
6. position a victim for rescue breathing.
7. perform rescue breathing.
8. recognize when a person has an airway obstruction.
9. perform first aid for a conscious victim with an airway obstruction.

10. perform first aid for an unconscious victim with an airway obstruction.
11. recognize the early warning signals of a heart attack.
12. perform first aid for a heart attack.
13. recognize a cardiac arrest emergency.
14. perform CPR (cardiopulmonary resuscitation)
15. recognize hypovolemic shock.
16. perform and describe first aid for hypovolemic shock.
17. recognize a fainting episode.
18. perform and describe first aid for fainting.
19. recognize a severe allergic reaction (anaphylactic shock).
20. describe first aid for a severe allergic reaction.
21. recognize types of bleeding and types of wounds.
22. control bleeding.
23. recognize an animal bite and a human bite.
24. describe first aid for animal bites.
25. recognize an amputation.
26. describe first aid for amputations.
27. recognize a head injury.
28. describe first aid for a head injury.
29. recognize eye injuries.
30. describe first aid for eye injuries.
31. recognize a nosebleed.
32. describe first aid for nosebleeds.
33. recognize dental injuries.
34. describe first aid for dental injuries.
35. recognize a chest injury.
36. describe first aid for chest injuries.
37. recognize an abdominal injury.
38. describe first aid for abdominal injuries.
39. recognize an embedded fishhook.
40. describe first aid for an embedded fishhook.
41. recognize a blister.
42. describe first aid for a blister.
43. recognize poisoning.
44. describe first aid for poisoning.
45. recognize an insect sting.
46. describe first aid for an insect sting.
47. recognize a snake bite.
48. describe first aid for snake bites.
49. recognize spider bites and scorpion stings.
50. describe first aid for spider bites and scorpion stings.
51. recognize an embedded tick.

52. describe first aid for an embedded tick.
53. recognize poison ivy, oak and sumac.
54. describe first aid for poison ivy, oak and sumac.
55. recognize inhalation poisoning.
56. describe first aid for an inhaled poison.
57. recognize heat burns.
58. describe first aid for heat burns.
59. recognize chemical burns.
60. describe first aid for chemical burns.
61. recognize electrical burns and electrocution.
62. describe first aid for electrical burns and electrocution.
63. recognize frostbite.
64. describe first aid for frostbite.
65. recognize hypothermia.
66. describe first aid for hypothermia.
67. recognize heat stroke, heat exhaustion, heat cramps, and heat syncope.
68. describe first aid for heat-related emergencies.
69. recognize a fracture.
70. describe first aid for a fracture.
71. recognize a spinal injury.
72. describe first aid for a spinal injury.
73. recognize a sprain, strain, and dislocation.
74. describe first aid for a sprain, strain, and dislocation.
75. recognize an ankle injury.
76. describe first aid for ankle injuries.
77. recognize a muscle injury.
78. describe first aid for muscle injuries.
79. recognize a stroke.
80. describe first aid for a stroke.
81. recognize diabetic emergencies.
82. describe first aid for diabetic emergencies.
83. recognize a seizure.
84. describe first aid for a seizure.
85. recognize asthma.
86. describe first aid for asthma.

Evaluative Activities:

Periodic tests.....	70%
Homework assignments.....	10%

Student Participation.....20%  
Class attendance as per BOE policy  
Daily notes  
Student projects

Course Outline: First Aid and CPR:

Unit I: Introduction

- A: Legal Aspects of First Aid
  - 1: Duty to Act
  - 2: Standards of Care
  - 3: Obtain Consent to Help
    - a: actual consent
    - b: implied consent
  - 4: Abandonment
  - 5: The Right to Refuse Care
    - a: parent refusing permission to help a child
    - b: the intoxicated or belligerent victim
    - c: Good Samaritan Law

## Unit II: Victim Assessment

### A: Scene Survey

- a: dangerous hazards
- b: number of victims
- c: cause of injury

### B: Primary Survey

- a: check responsiveness
- b: Airway open (head tilt/chin lift)
- c: Breathing (look at chest; listen and feel for air)
- d: Circulation (pulse at carotid)
- e: Hemorrhage (severe bleeding; personal protection)

### C: Secondary Survey

#### 1: Interview:

Introduce self/reassure/victim's name/obtain consent/ask questions:

S = Signs/symptoms (chief complaint)

P = period of pain (how long?)

A = area (where?)

I = intensity

N = nullify (what stops it?)

A = Allergies

M= Medications currently taking

P = Pertinent past medical history

L= Last oral intake: solid or liquid? when and how much?

E = Events leading to injury or illness

#### 2: Vital Signs

Pulse: rate?

Respiration: rate/sounds?

Skin condition: temperature/color/moisture?

Capillary refill?

#### 3: Head-to-Toe Examination (use LAF: L=look; A=ask; F=feel)

Head: bleeding/deformity/CSF (ears/nose)/mouth clear/cyanosis?

Eyes: pupils - equal & react to light/inner eyelid color?

Chest: wounds/penetrating object?

pain (with/without rib spring)?

Abdomen: wounds/penetrating object"

pain/guarding/rigidity (with/without gentle pushing)?

Extremities: wounds/deformity/tenderness (compare 2 sides)?

pulses?

capillary refill?

Spinal Cord: finger/toe wiggle?  
touch finger/toe for sensation?  
Hand squeeze/foot push?  
Medical Alert Tag?

### Unit III: Basic Life Support (Adult)

#### A: Adult Rescue Breathing

- a: victim is not breathing and has a pulse
- b: Step-by-step
  - 1) check responsiveness
  - 2) activate EMS
  - 3) roll victim onto back
  - 4) Airway open
  - 5) Breathing check
  - 6) 2 slow breaths
  - 7) Check pulse at carotid
  - 8) rescue breathing (1 breath every 5 seconds)  
count: 1,1000/2,1000/3,1000/4,1000/breathe
  - 9) recheck pulse and breathing after 1st minute and then every few minutes

#### B: Adult One-Rescuer CPR

- a: victim is not breathing and has no pulse
- b: Step-by-step
  - 1) check responsiveness
  - 2) activate EMS
  - 3) roll victim onto back
  - 4) Airway open
  - 5) Breathing check
  - 6) 2 slow breaths
  - 7) Check pulse at carotid
  - 8) Landmark (hand position)
  - 9) 30 compressions
  - 10) 2 slow breaths
  - 11) continue CPR (5 cycles)
  - 12) recheck pulse
  - 13) continue CPR (start with compressions)
  - 14) recheck pulse after first minute then every few minutes

#### C: Conscious Adult Choking Management

- a: victim is breathless and alert

- b: Step-by-step
  - 1) recognize choking
  - 2) up to 5 abdominal thrusts
  - 3) reassess
  - 4) repeat cycles of up to 5 thrusts; reassess after each cycle
- D: Unconscious Adult Choking Management
  - a: victim is breathless and unresponsive
  - b: attempts at ventilation are failed
  - c: Step-by-step
    - 1) check responsiveness
    - 2) activate EMS
    - 3) roll victim onto back
    - 4) Airway open
    - 5) Breathing check
    - 6) try 2 slow breaths, if unsuccessful, retilt head and try 2 more
    - 7) up to 5 abdominal thrusts
    - 8) finger sweep
    - 9) try 2 slow breaths, if unsuccessful, retilt head and try 2 more
    - 10) Repeat "thrust, sweep, breaths" sequence

## Unit IV: Shock

- A: Hypovolemic
  - a: results from blood or fluid loss
  - b: signs and symptoms
    - 1) rapid breathing and pulse
    - 2) pale or bluish skin, nailbed and lips
    - 3) slow capillary refilling time
    - 4) cool and wet (clammy) skin
    - 5) heavy sweating
    - 6) dilated (enlarged) pupils
    - 7) dull, sunken look to the eyes
    - 8) thirst
    - 9) nausea and vomiting
    - 10) loss of consciousness in severe shock
  - c: first aid
    - first aiders can prevent shock; they cannot reverse it
      - 1) care for life threatening injuries
      - 2) elevate legs 8-12 inches

- 3) keep victim on his/her back
  - exceptions: a) head injuries or stroke victims - head elevated
  - b) breathing difficulties, chest injuries or heart attack  
semi-sitting position
  - c) unconscious or semiconscious or vomiting victim  
lie on his/her side
- 4) prevent body heat loss
- 5) no food or drink
- 6) handle victim gently

#### B: Fainting

- a: severe allergic reaction; life threatening emergency
- b: signs and symptoms
  - 1) coughing, sneezing or wheezing
  - 2) difficult breathing
  - 3) tightness and swelling in the throat
  - 4) tightness in the chest
  - 5) severe itching, burning, rash or hives on the skin
  - 6) swollen face, tongue, mouth
  - 7) nausea and vomiting
  - 8) dizziness
  - 9) abdominal cramps
  - 10) blueness (cyanosis) around the lips and mouth
- c: first aid
  - 1) seek medical attention
  - 2) injection of epinephrine
  - 3) some cases - CPR

#### C: Anaphylactic Shock

- a: severe allergic reaction; life threatening emergency
- b: signs and symptoms
  - 1) coughing, sneezing or wheezing
  - 2) difficulty breathing
  - 3) tightness and swelling in the throat
  - 4) tightness in the chest
  - 5) severe itching, burning, rash or hives on the skin
  - 6) swollen face, tongue, mouth
  - 7) nausea and vomiting
  - 8) dizziness
  - 9) abdominal cramps
  - 10) blueness (cyanosis) around lips and mouth
- c: first aid
  - 1) seek medical attention

- 2) injection of epinephrine
- 3) some cases need CPR

## Unit V: Bleeding and Wounds

### A: External Bleeding

- a: visible blood coming from a wound
- b: arterial - bright red and spurts  
venous - flows steadily, darker red  
capillary - oozes slowly
- c: first aid
  - 1) direct pressure
  - 2) elevation
  - 3) pressure points
  - 4) tourniquet

### B: Internal Bleeding

- a: skin is unbroken, bleeding not usually visible
- b: signs and symptoms
  - 1) blood from mouth (vomit, sputum), rectum, urine
  - 2) nonmenstrual from the vagina
  - 3) bruise or contusion
  - 4) rapid pulse
  - 5) cold and moist skin
  - 6) dilated pupils
  - 7) nausea and vomiting
  - 8) painful, tender, rigid, bruised abdomen
  - 9) fractured ribs or bruises on chest
- c: First Aid for internal bleeding
  - 1) monitor breathing and pulse
  - 2) expect vomiting - do not give liquids
  - 3) keep victim lying on his/her side for drainage
  - 4) treat for shock
  - 5) seek medical attention immediately
- d: First Aid for bruises
  - 1) apply ice
  - 2) elevate
  - 3) apply compression to an extremity

### C: Wounds

- a: open wounds
  - damaged skin, visible bleeding, could become infected

- 1) abrasion - scrape
  - 2) incision - cut by sharp object
  - 3) laceration - blunt object (jagged edges)
  - 4) puncture - sharp pointed object
  - 5) avulsion - partially torn off
  - 6) amputation - body part cut off
- b: First Aid for open wounds
- 1) remove clothing covering wound
  - 2) wear gloves
  - 3) apply pressure
  - 4) do not remove penetrating object
  - 5) save amputated part(s)
- c: clean minor wounds
- 1) wash your hands
  - 2) wash wound with gauze, soap and water
  - 3) flush with large amounts of water and dry
  - 4) cover with sterile gauze dressing and bandage
  - 5) anti-biotic ointment
  - 6) hydro-active dressing
- d: care for severe wounds
- 1) wear gloves
  - 2) remove clothing covering wound
  - 3) control bleeding
  - 4) apply dry sterile dressing
  - 5) seek medical attention

## Unit VI: Specific Body Area Injuries

### A: Head Injuries

#### 1: Scalp Wounds

- a: bleed profusely - direct pressure
- b: elevate head and shoulders

#### 2: Skull Fracture

- a: a break or crack in the cranium
- b: signs and symptoms
  - 1) pain at the point of injury
  - 2) deformity of the skull
  - 3) bleeding from the ears and/or nose
  - 4) cerebro spinal fluid (CSF) detected

- 5) raccoon eyes
- 6) Battle's sign
- 7) unequal pupils
- 8) scalp bleeding

c: first aid

### 3: Concussion

a: comes from a blow to the head that results in a violent jar or shaking to the brain, causing an immediate change in brain function, including possible loss of consciousness

b: signs and symptoms

- 1) loss of consciousness
- 2) severe headache
- 3) memory loss (amnesia)
- 4) seeing stars
- 5) dizziness
- 6) weakness
- 7) double vision

c: degrees of concussion

- 1) mild
- 2) moderate
- 3) severe

### 4: Contusion

a: bruising and swelling of the brain

b: signs and symptoms

- 1) unconsciousness
- 2) paralysis or weakness
- 3) unequal pupil size
- 4) vomiting and nausea
- 5) blurred vision
- 6) amnesia or memory lapses
- 7) headache

### 5: First Aid for concussions and contusions

a: head injury may be accompanied by a spinal injury - keep head, neck and spine in the same alignment

b: unconscious victim

- 1) assure open airway with jaw thrust method - give rescue breathing if needed
- 2) stabilize head and neck
- 3) check for severe bleeding
- 4) if no signs of neck or spinal injury place victim in coma position
- 5) seek medical attention

c: conscious victim

- 1) check for spinal injury by noting arm or leg weakness or paralysis  
little or no reaction--stabilize neck
- 2) do not block the escape of CSF
- 3) question victim to test memory
- 4) keep victim in a semi-sitting position

## B: Eye Injuries

### 1: Penetrating Injuries

- a: immediate ophthalmological attention
- b: First Aid
  - 1) do not remove impaled objects
  - 2) put padding around object and place a paper cup over the object to prevent further damage
  - 3) cover the undamaged eye in order to stop sympathetic eye movement

### 2: Blows to the Eye

- a: apply ice for about 15 minutes (not directly on the eyeball)
- b: black eye or blurred vision could signal internal eye damage
- c: see ophthalmologist

### 3: Cuts of the Eye and Lid

- a: bandage both eyes lightly and seek medical attention immediately

### 4: Chemical Injury

- a: flood the eye with warm water immediately for at least 15 minutes
- b: loosely bandage both eyes
- c: seek medical attention

### 5: Avulsion of the Eye

- a: do not attempt to push the eye back in the socket
- b: cover the extruded eye loosely with a moist sterile dressing
- c: cover the eye with a paper cup
- d: cover the uninjured eye to prevent sympathetic eye movement
- e: seek medical attention

### 6: Foreign Bodies

- a: do not rub the eye
- b: flush with warm water or use a moist sterile gauze

### 7: Light Burns

- a: from looking at ultraviolet light
- b: severe pain from 1 to 6 hours after exposure
- c: cover both eyes with cold moist compresses and rest in a darkened room
- d: call an ophthalmologist

## C: Nosebleeds

- a: anterior - most common, out of one nostril

- b: posterior - bleeds into the mouth and/or down the victims throat  
serious and requires medical attention
- c: first aid
  - 1) sitting position
  - 2) head tilted slightly forward
  - 3) with thumb and forefinger apply steady pressure to both nostrils for  
5 minutes
  - 4) if bleeding persists blow nose and retry
  - 5) apply ice over nose

#### D: Dental Injuries

- 1: Objects wedged between teeth
  - a: use dental floss
- 2: Bitten lip or tongue
  - a: direct pressure to bleeding area
  - b: cold compress
  - c: seek medical attention if the bite is severe
- 3: Knocked-Out Tooth
  - a: pick tooth up by the crown
  - b: place it in whole milk
  - c: take victim and tooth to a dentist within 30 minutes for reimplantation
- 4: Broken Tooth
  - a: immediate attention is necessary since it may need to be extracted
  - b: apply a cold compress to the face to minimize swelling
  - c: if jaw fracture is suspected immobilize

#### E: Chest Injuries

- a: open chest wounds - penetrating objects
- b: closed chest wounds - blunt blows
- c: signs and symptoms
  - 1) pain at injury site
  - 2) breathing difficulty
  - 3) cyanosis
  - 4) coughing or spitting up blood
  - 5) bruising or an open chest wound
  - 6) failure of one or both sides of the chest to expand normally when  
inhaling
- 1: Rib Fracture
  - a: point tenderness
- 2: Flail Chest
  - a: a rib Fx involving 3 or more ribs that are broken in more than 1 place
  - b: paradoxical breathing
  - c: stabilize ribs with pillow
  - d: seek medical attention

- 3: Penetrating wound
  - a: should be closed quickly to prevent outside air from entering the chest cavity
  - b: stabilize object - do not remove
- 4: Sucking Chest Wound
  - a: air has entered the chest cavity making breathing difficult
  - b: use household plastic wrap to stop air from entering
- F: Abdominal Injuries
  - a: open injuries - foreign object enters the abdomen, resulting in external bleeding
  - b: closed injuries - a severe blow that shows no open wound or bleeding on the outside of the body
  - c: hollow organs - spill contents into abdominal cavity
  - d: solid organs - result in severe bleeding
  - e: signs and symptoms
    - 1) pain in abdomen
    - 2) legs drawn up to chest
    - 3) skin wounds and penetrations
    - 4) nausea and vomiting
    - 5) protruding organs
    - 6) blood in urine or stool
    - 7) guarding abdomen
    - 8) rapid pulse
    - 9) moist, cold skin
- 1: Blunt Wound
  - a: organ bruising
  - b: place victim on side
  - c: expect vomiting
- 2: Penetrating Injuries
  - a: expect internal organ damage
  - b: leave object in place
- 3: Protruding Organs
  - a: abdominal organs lie outside the abdominal cavity - do not replace
  - b: keep extruding organs moist, warm and clean with a moist sterile dressing
- H: Finger and Toe Injuries
  - 1: Fractures (Fx)
    - a: tender and swollen
    - b: tapping test
    - c: immobilize the finger
      - 1) tape to adjacent finger
      - 2) splint

- 2: Dislocations
  - a: do not pull the joint back in place
  - b: seek medical attention
  - c: care same as fracture
- 3: Nail Avulsion
  - a: nail is partially torn loose
  - b: secure damaged nail in place
  - c: apply antibiotic ointment
  - d: new nail will grow in about 1 month
- 4: Splinters
  - a: use tweezers to pull out
  - b: a V-shaped notch may need to be cut in the nail
- 5: Bleeding under a fingernail
  - a: after a direct blow, blood can collect under the nail
  - b: first aid
    - 1) apply ice
    - 2) nail drill
    - 3) heated paper clip
  
- 6: Fishhook Removal
  - a: immobilize
  - b: physician removal
  - c: remote area first aid
    - 1) Pliers method (push and cut)
    - 2) Fishline method (push and pull)
- 7: Ring Removal
  - a: lubricate with slippery substance
  - b: immerse in cold water (ice) to reduce swelling
  - c: string method
  - d: cut ring with ring cutter
- 8: Blisters
  - a: a collection of fluid under the outer layer of skin
  - b: usually heal in 3 - 7 days
  - c: signs and symptoms
    - 1) fluid collection under the skins outer layer
    - 2) pain resulting from touch or pressure
    - 3) swelling and redness around the blister
  - d: first aid

### Closed Blister

- 1) whenever possible do not break a blister
- 2) small blisters cover with sterile adhesive bandage
- 3) larger blisters - make a doughnut out of a stack of gauze
- 4) breaking a blister - due to pain
  - wash area with soap and water
  - dry and swab area with 70% alcohol
  - make several small holes at the base of the blister with a sterilized needle
  - drain by pressing the blister's top
  - do not remove the roof of the blister
  - apply antibiotic ointment and cover with sterile dressing

## Unit VII: Poisoning

### A: Swallowed Poison

- a: signs and symptoms
  - 1) abdominal pain and cramping
  - 2) nausea or vomiting
  - 3) diarrhea
  - 4) burns, odor, stains around and in mouth
  - 5) drowsiness or unconsciousness
  - 6) poison containers or plants nearby
- b: first aid
  - 1) determine critical information
    - Who? - age and size of victim
    - What? - type of poison swallowed
    - How much? - a taste, half a bottle, etc.
    - How? - circumstances
    - When? - time taken
  - 2) call the poison control center, ER or a physician immediately
  - 3) poison proofing the home

### B: Insect Stings

- a: signs and symptoms
  - 1) Usual reactions - momentary pain, redness around sting site, itching, heat
  - 2) Worrisome reactions - skin flush, hives, localized swelling of lips or tongue, "tickle" in throat, wheezing, abdominal cramps, diarrhea

- 3) Life-threatening reactions - bluish or grayish skin color (cyanosis), seizures, unconsciousness, inability to breathe due to swelling of vocal cords

b: first aid

- 1) prior reactions - self treatment, medical alert tags
- 2) look for embedded stinger - scrape out with fingernail or credit card
- 3) wash the sting site
- 4) ice - to slow absorption of venom and relieve pain
- 5) analgesic may be appropriate
- 6) observe victim for at least 30 minutes for signs of an allergic reaction (anaphylactic shock) - a dose of epinephrine is the only effective life-saving treatment

C: Snake Bites

a: poisonous (USA)

- 1) rattlesnake - pit viper
- 2) copperhead - pit viper
- 3) water moccasin - pit viper
- 4) coral snake

b: signs and symptoms (pit viper)

- 1) severe burning pain at the bite site
- 2) 2 small puncture wounds about 1/2 inch apart
- 3) swelling within 5 minutes and can involve an entire extremity
- 4) discoloration and blood filled blisters may develop in 6-10 hours
- 5) severe cases: nausea, vomiting, sweating, weakness

c: first aid (pit viper)

- 1) get victim away from snake
- 2) keep victim's heart rate down (stay calm)
- 3) identify the snake species
- 4) gently wash the bitten area with soap and water
- 5) keep track of swelling by marking skin every 15 minutes
- 6) seek medical attention - antivenin must be given within 4 hours

d: signs and symptoms (coral)

- 1) bite usually on small part of the body (finger or toe)
- 2) 1 or more punctures or scratchlike wounds
- 3) little or no local signs
- 4) dizziness, drooling, blurred or double vision, drooping eyelids, drowsiness, nausea, vomiting

e: first aid (coral)

- 1) keep victim calm
- 2) clean with warm water and soap

- 3) seek medical attention for antivenin
- f: first aid (nonpoisonous)
  - 1) clean with warm water and soap
  - 2) care as a minor wound
  - 3) consult with a Dr.

#### D: Spider Bites

##### 1: Black Widow

- a: red spot (shape of an hourglass) on the abdomen
- b: venom is deadly
- c: signs and symptoms
  - 1) pinprick may be felt by victim
  - 2) within 15 minutes a dull numbing pain develops in bitten area
  - 3) faint red bite marks appear
  - 4) muscle stiffness and cramps occur:
    - abdomen - bite in lower body
    - shoulders, back or chest - bite in upper body
  - 5) headache, chills, fever, heavy sweating, dizziness, nausea, vomiting and severe abdominal pain
- d: first aid
  - 1) catch the spider for identification
  - 2) clean with soap and water or alcohol
  - 3) ice to relieve pain
  - 4) keep victim quiet and monitor breathing
  - 5) seek medical attention

#### E: Brown Recluse Spider

- a: signs and symptoms
  - 1) initial pain may be overlooked
  - 2) blister at bite site, redness and swelling
  - 3) pain at bite site within 2-8 hours
  - 4) fever, weakness, vomiting, joint pain and a rash
  - 5) ulcer forms within a week (gangrene may develop)
  - 6) chills, fever, red skin rash, weakness, nausea and vomiting
- b: first aid
  - 1) pre-ulceration care:
    - capture spider for identification
    - clean area with alcohol
    - apply ice
    - seek medical attention
  - 2) post-ulceration care:
    - care for wound with Burow's solution
    - follow medical advice

#### F: Tick Removal

a: first aid

- 1) use tweezers
- 2) grasp tick close to skin surface on back and belly
- 3) pull straight back
- 4) wash area with soap and water
- 5) apply alcohol to disinfect
- 6) apply cold pack to reduce pain
- 7) watch for signs of infection or unexplained symptoms  
(headache, fever, rash) - 3-10 days later >> seek medical help

G: Poison Ivy, Oak and Sumac

a: signs and symptoms

- 1) Mild - some itching
- 2) Mild to Moderate - itching and redness
- 3) Moderate - itching, redness and swelling
- 4) Severe - itching, redness, swelling and blisters
- 5) 1-2 days between contact and onset of symptoms

b: first aid

- 1) rinse area with plain water or alcohol within 5 minutes of contact
- 2) during oozing stage: baking soda as a soak, bath or wet dressing  
for 30 minutes 3-4 times a day
- 3) Mild - cool wet compresses and baths  
- calamine lotion or zinc oxide  
Moderate - Dr. Rx corticosteroids  
Severe - Dr. Rx corticosteroids

H: Carbon Monoxide (CO)

a: gas is invisible, tasteless, odorless and non-irritating

b: signs and symptoms

- 1) headache
- 2) tinnitus
- 3) angina
- 4) muscle weakness
- 5) nausea and vomiting
- 6) dizziness and visual changes
- 7) unconsciousness
- 8) breathing and cardiac failure

c: first aid

- 1) remove victim from toxic environment
- 2) conscious victim - seek medical attention for blood test
- 3) unconscious victim - place victim on side, loosen tight clothing,

- maintain body heat
- 4) give BLS if needed

## Unit VIII: Burns

### 1: Heat Burns

#### a: Assessing a Burn

- 1) How large is the burn? - "rule of nines"
- 2) How deep is the burn?
  - 1st degree - superficial, affect the skins outer layer  
redness, mild swelling, tenderness and pain
  - 2nd degree - partial-thickness, trough the entire outer skin layer  
and into the inner skin layer  
blister formation, swelling, weeping of fluids, severe  
pain
  - 3rd degree - full-thickness, through all skin layers and into the  
underlying fat, muscle and bone  
discoloration (charred, white or cherry red)  
leathery, parchentlike, dry appearance  
pain is absent because nerve endings have been  
destroyed
- 3) What parts of the body are burned?  
most important are the face, hands, feet, genitals
- 4) How old is the victim?  
more serious in infants and elderly (over 65) persons
- 5) Does the victim have any injuries or medical problems?  
diabetes, heart disease and lung disease can be aggravated

#### b: first aid

- 1) put out fire (on victim)
- 2) move victim away from burning area
- 3) remove smoldering clothing or soak it with water
- 4) do not remove clothing that is stuck - cut around stuck areas
- 5) immerse the burned area in cold water for about 10 minutes
- 6) do not break blisters
- 7) cover the burn with a dry sterile gauze dressing
- 8) do not put any type of ointment, grease, lotion, butter, antiseptic  
or home remedies on burned skin
- 9) monitor breathing and watch for respiratory distress
- 10) treat for shock
- 11) susceptible to hypothermia due to heat and water loss, keep warm

#### First Degree:

- apply cold water until the pain stops
- fast cooling aids healing
- apply cold from 10 to 30 minutes
- keep applying until pain after rewarming has stopped

#### Second Degree:

- apply cold water until the pain stops
- do not break blisters

#### Third Degree:

- check ABC's - give CPR if needed
- treat for shock
- do not remove any skin from area or break blisters
- do not apply cold to 3rd degree or large 2nd degree burns
- apply sterile dressings
- elevate burned arms and/or legs to reduce swelling
- seek medical attention

#### 2: Chemical Burns

##### a: first aid

- 1) wash with large quantities of water
- 2) remove contaminated clothing while washing victim
- 3) do not apply water under pressure
- 4) brush off a dry chemical before flushing
- 5) call poison control

#### 3: Electrical Burns

##### a: household current can be deadly

##### b: high voltage electrical currents passing throughout the body may disrupt

normal heart rhythm, cause cardiac arrest, burns and other injuries

##### c: electricity enters the body at the point of contact and travels along the the path of least resistance (nerves and blood vessels), it travels rapidly, generating heat and causing

##### d: usually the electricity exits where the body is touching a surface or is in contact with the ground

#### 4: Contact with Power Line (outside)

##### a: the power must be turned off before rescuer approaches anyone

##### b: victim in car should stay in there until power is shut off

exception: when fire threatens the car

##### c: if you approach a victim and you feel tingling in lower body, STOP raise one foot and hop to safe ground

##### d: prevent bystanders from entering the danger area

- 5: Contact with Power Lines (inside)
  - a: turn off electricity at circuit breaker, fuse box, outside switch box or unplug the appliance if the plug is not damaged
  - b: do not touch the victim or the appliance until the power is shut off
  - c: check ABC's and treat
  - d: check for burns and treat for shock
- 6: Lightning Strikes
  - a: main concern is the possibility of respiratory or cardiac arrest
  - b: first aid
    - 1) check ABC's - use jaw thrust to open airway
    - 2) treat for shock
    - 3) immobilize the spine

## Unit IX: Cold and Heat Related Emergencies

### 1: Cold Emergencies

#### A: Frostbite

- a: actual tissue freezing, resulting in the formation of ice crystals between the tissue cells; the ice crystals enlarge by extracting water from the cells
- b: the obstruction of blood supply to the tissues; this causes "sludged" blood clots, which prevent blood from flowing to the tissues
- c: signs and symptoms (pre-thaw stage)

#### Superficial

- 1) skin color is white or grayish-yellow
- 2) pain may occur early and later subside
- 3) affected part may feel only very cold and numb - there may be a tingling, stinging or aching sensation
- 4) skin surface will feel hard or crusty and underlying tissue soft when depressed gently and firmly

#### Deep

- 1) affected part feels hard, solid, and cannot be depressed
- 2) blisters appear in 12 to 36 hours
- 3) affected part is cold with pale, waxy skin
- 4) a painfully cold part suddenly stops hurting
- d: signs and symptoms (post-thaw stage)
  - 1) 1st degree frostbite - affected part is warm, swollen and tender
  - 2) 2nd degree frostbite - blisters form within minutes to hours after

thawing and enlarge over several days

- 3) 3rd degree frostbite - blisters are small, contain reddish-blue or purplish fluid - surrounding skin may have a red or blue color and may not blanch when pressure is applied
- 4) 4th degree frostbite - no blisters or swelling - the part remains numb, cold, white-to-dark purple in color

e: first aid

Rapid Rewarming

- 1) do not attempt rewarming if a medical facility is nearby
- 2) remove any clothing or constricting items that impair circulation
- 3) put part in warm water 102-106 degrees
- 4) warming usually takes 20 to 40 minutes
- 5) for ear and facial injuries, apply warm moist cloths
- 6) to help control pain during rewarming - aspirin or ibuprofen

Post-Care

- 1) treat victim as a stretcher case
- 2) maintain total body warmth
- 3) protect injured parts from direct contact with clothing, bedding...
- 4) leave any blisters intact
- 5) place dry, sterile gauze between fingers and toes to absorb moisture and avoid having them stick together
- 6) slightly elevate the affected part to reduce pain and swelling
- 7) keep both the victim and affected part as warm as possible without overheating

Cautions

- 1) do not allow victim to walk on frostbitten feet
- 2) do not use water hotter than 106 degrees - burns can result
- 3) do not allow part to freeze again
- 4) do not break any blisters
- 5) do not rub the part
- 6) do not rewarm with a heating pad, hot water bottle, sunlamp, stove, radiator, exhaust pipe or over a fire
- 7) do not allow the victim to drink alcoholic beverages
- 8) do not allow the victim to smoke
- 9) do not allow to refreeze

B: Hypothermia

a: a cooling of the body's core temperature

b: signs and symptoms

Mild (above 90 degrees)

- 1) shivering, slurred speech, memory lapses, fumbling hands
- 2) stumble and stagger

- 3) conscious and can talk
- 4) cold abdomen and back

#### Profound (below 90 degrees)

- 1) shivering has stopped
- 2) muscles become stiff and rigid
- 3) skin has blue appearance, doesn't respond to pain
- 4) pulse and respirations slow down
- 5) pupils dilate

\*\*50-80% of all profound hypothermia victims die

#### c: first aid

##### General

- 1) get victim out of cold environment
- 2) have a heat source (fire, stove)
- 3) insulate beneath and around the victim
- 4) replace wet clothing with dry clothing
- 5) handle victim gently
- 6) treat any injuries

##### Mild

- 1) use a tub of hot water (102-106) or electric blanket, leave arms and legs out
- 2) place hot packs against the body's areas of high heat loss (head, neck, chest, groin)
- 3) rescuer lie trunk to trunk with the victim in a sleeping bag

##### Profound

- 1) do not rewarm the victim if he/she can be transported within 12 hours, keep the victim from getting colder
- 2) do not jostle or jolt the victim during transportation

##### Cautions

- 1) do not put an unconscious victim in a bathtub
- 2) do not give the unconscious victim anything to drink
- 3) do not attempt to rewarm the body by rubbing the arms and legs
- 4) do not allow the victim to move about, walk or struggle
- 5) do not wrap the victim in a blanket without another source of heat
- 6) do not stop resuscitative attempts until the victim has been rewarmed
- 7) do not give CPR unless the victim is pulseless
- 8) do not rewarm extremities and body core at the same time

## 2: Heat Related Emergencies

### A: Heat Stroke

- a: most dangerous, death rate approximately 50%
- b: the body is subjected to more heat than it can handle
- c: types of heat stroke

Classic:

- a combination of a hot environment and body mechanisms incapable of handling heat exposure

Environmental:

- affects a healthy individual when strenuously working or playing in a warm environment

d: signs and symptoms

- 1) unconscious
- 2) hot skin - victims do not sweat because the sweat mechanism is overwhelmed
- 3) high body temperature
- 4) rapid pulse and breathing
- 5) weakness, dizziness, headache

e: first aid (a true EMERGENCY!)

- 1) move the victim to a cool place, remove heavy clothing
- 2) immediately cool the victim; ice packs at neck, armpits, groin, cool wet towels and fan the victim, continue to 102 degrees
- 3) elevate head and shoulders
- 4) monitor the ABC's
- 5) care for seizures
- 6) get to medical facility ASAP, continue cooling en route

B: Heat Exhaustion

a: results from either excessive perspiration or the inadequate replacement of water lost by sweating (can progress to heat stroke)

b: signs and symptoms

- 1) heavy sweating
- 2) weakness
- 3) fast pulse
- 4) normal body temperature
- 5) headache and dizziness
- 6) nausea and vomiting

c: first aid

- 1) move the victim to a cool place
- 2) keep victim lying down with legs up
- 3) cold packs or wet towels, fan the victim
- 4) give victim cold water if he/she is fully conscious
- 5) no improvement within 30 minutes>>seek medical attention

C: Heat Cramps

a: occur when an excessive amount of body fluid is lost through sweating

b: signs and symptoms

- 1) severe cramping, usually arms or legs
- 2) abdominal cramping

c: first aid

- 1) move victim to a cool place
- 2) stretch the cramping muscle
- 3) give a lot of cold water
- 4) massage if not painful

D: Heat Syncope

- a: resembles fainting
- b: victims not nauseated can drink water
- c: lie down in a cool place

X: Bone, Joint, and Muscle Injuries

A: Fractures

- a: fracture and break have the same meaning - break or crack in the bone
- b: fracture classification:
  - 1) open (compound) fracture - the overlying skin has been damaged or broken
  - 2) closed (simple) fracture - the skin has not been broken and no wound exists near the fracture site
- c: signs and symptoms
  - 1) swelling
  - 2) deformity
  - 3) pain and tenderness
  - 4) loss of use
  - 5) grating sensation
  - 6) history of the injury
- d: first aid
  - 1) treat for shock
  - 2) what happened and locate pain, numbness, tingling
  - 3) gently remove clothing surrounding area, do not move injured area
  - 4) control bleeding and cover all wounds before splinting
  - 5) check pulse, sensation, capillary refill - compare to uninjured side
  - 6) immobilize joints above and below the Fx site
  - 7) severely deformed fractures should be realigned before splinting if pulse is absent
  - 8) never reduce an open fracture, cover with sterile dressing and splint
  - 9) spine injuries take priority

## B: Dislocations

a: a joint is pushed beyond its normal range of motion (ROM)

b: signs and symptoms

- 1) deformity of a joint
- 2) severe pain in a joint
- 3) swelling around the joint
- 4) discoloration around the joint
- 5) inability to move the injured area
- 6) appearance differing from comparable uninjured joint

c: first aid

- 1) check pulse, sensation, and capillary refill
- 2) splint as if a fracture
- 3) do not replace the joint

## C: Spinal Injuries

a: spine - column of vertebrae stacked one on top of the next from the skull's base to the tail bone, each has a hollow center through which the spinal cord passes

b: signs and symptoms

- 1) head injury
- 2) painful movement of arms and/or legs
- 3) numbness, tingling, weakness, or burning sensation in arms and/or legs
- 4) loss of bowel or bladder control
- 5) paralysis to arms and/or legs
- 6) deformity; odd looking angle of victim's head and neck
- 7) ask the following questions:
  - a: Is there pain?
  - b: Can you move your feet?
  - c: Can you move your fingers?
- 8) unconscious victim
  - a: look for cuts, bruises, deformities
  - b: test responses, pinch hands and feet
  - c: ask others what happened

c: signs and symptoms

- 1) check and monitor ABC's, use jaw thrust if necessary
- 2) wait for EMS
- 3) stabilize victim against any movement
- 4) victim must be immobilized, tell victim not to move
- 5) in water - float gently to shore, before removal from water>>backboard

## D: Ankle Injuries

### a: signs and symptoms

- 1) treat as a fracture until you get the advice of a physician
- 2) ask if the victim walked on it
- 3) press along the ankle bones malleolus, fifth metatarsal, inside bones, pain may indicate fracture
- 4) sprains tend to swell only on one side of the foot

### b: first aid

- 1) RICE-rest, ice, compression, elevation

## E: Muscle Injuries

### Strains

a: muscle pull, muscle is stretched beyond its normal ROM, resulting in a muscle fiber tear

### b: signs and symptoms

- 1) a sharp pain immediately after the injury
- 2) extreme tenderness when area is felt
- 3) disfigurement
- 4) severe weakness and loss of function of the injured part
- 5) the sound of a snap when the tissue is torn

### Muscle Contusions

a: result from a blow to the muscle, bruise

### b: first aid (Muscle Strains and Contusions)

- 1) RICE - rest, ice, compression, elevation

### Muscle Cramps

a: uncontrolled spasm and contraction, resulting in severe pain and a restriction or loss of movement

### b: first aid

- 1) gently stretch the affected muscle
- 2) apply ice to relax the muscle
- 3) apply pressure to muscle (not massage)
- 4) drink water

## XI: Medical Emergencies

### A: Heart Attack

a: the blood supply to a part of the heart muscle is severely reduced or stopped because of an obstruction in one of the coronary arteries  
- a buildup of fatty deposits along the coronary artery's inner wall is one reason for blood obstruction

- the blood supply can also be reduced when the artery goes into spasm

b: signs and symptoms

- 1) uncomfortable pressure, fullness, squeezing or pain in the center of the chest lasting two minutes or longer
- 2) pain may spread to either shoulder, the neck, the lower jaw, or either arm
- 3) weakness, dizziness, sweating, nausea, or shortness of breath

c: first aid

- 1) chest discomfort lasting 2 or more minutes call EMS
- 2) if you can get to the hospital faster than waiting for EMS, drive the victim there
- 3) expect the victim to deny the possibility of a heart attack
- 4) give CPR if necessary
- 5) position victim in the least painful position-usually sitting, loosen clothing around neck and midriff
- 6) ask if the victim is known to have coronary heart disease and is using nitroglycerin, if so use it
- 7) if victim is conscious, check ABC's and start CPR if needed

B: Stroke

a: cerebrovascular accident (CVA), a blood vessel that is bringing oxygen

and nutrients to the brain bursts or becomes clogged by a blood clot, preventing part of the brain from receiving the flow of blood it needs

b: signs and symptoms

- 1) sudden weakness or numbness of the face, arm and leg on one side of the body
- 2) loss of speech, or trouble talking or understanding speech
- 3) dimness or loss of vision, particularly in only one eye; unequal pupils

4) unexplained dizziness, unsteadiness or sudden falls

5) sudden severe headache

6) loss of bladder and/or bowel control

c: first aid

1) monitor breathing and pulse

2) place victim on side, paralyzed side down

3) semiprone position, with upper body and head slightly elevated to allow for less blood pressure on the brain

4) remove dentures and any mucus and food from mouth in a swabbing

motion with a piece of cloth around a finger

5) do not give any liquids

6) if an eye has been affected, protect the eye by taping it closed

#### C: Diabetic Emergencies

- a: the inability of the body to appropriately metabolize carbohydrates
  - the pancreas fails to produce enough of a hormone called insulin
  - the function of insulin is to take sugar from the blood and carry into the cells to be used
  - when the blood sugar level becomes too high because of too little insulin in the blood, diabetic coma, or ketoacidosis may occur
  - insulin shock results when a person with diabetes has taken too much insulin or has not eaten, the blood sugar level drops dangerously low, the victim becomes weak and disoriented, or unconscious

#### D: Epilepsy

- a: Seizure Disorder
- b: Convulsive seizures - the person undergoes convulsions that usually last from 2 to 5 minutes, with complete loss of consciousness and muscle spasm
- c: Nonconvulsive seizures - a blank stare lasting only a few seconds, an involuntary movement of an arm or leg, or a period of automatic movement in which awareness of one's surroundings is blurred or completely absent
- d: first aid
  - 1) cushion the victim's head
  - 2) loosen the victim's tight neckwear
  - 3) turn the victim onto side
  - 4) look for a medic alert tag
  - 5) most seizures are not medical emergencies (unless the victim has never had seizures)

#### E: Asthma

- a: narrowing of the airway bronchial tubes, causing breathing difficulty, especially while exhaling
- b: signs and symptoms
  - 1) breathing difficulty while exhaling
  - 2) wheezing or whistling sound
  - 3) tense, frightened, nervous behavior
  - 4) bluish skin color in severe attacks due to lack of oxygen
  - 5) preference for sitting up
- c: first aid

- 1) comfort and reassure victim
- 2) help victim using inhalers
- 3) position in a comfortable breathing position
- 4) place victim in a room free of allergens
- 5) seek medical attention for prolonged attack

## XII: First Aid Skills

### A: Dressings

- a: control bleeding and prevent contamination
- b: sterile gauze, non-sterile gauze

### B: Bandages

- a: hold dressings in place
- b: roller gauze, triangular, cravat, self-adhering and formfitting
- c: do not apply too tightly or too loosely
- d: extremities - fingers and toes should be left exposed to note any color changes
- e: pain, numbness, color changes tingling are signs of a too-tight bandage
- f: splinting guide
  - 1) spine - long backboard
  - 2) sling and swathe
  - 3) ribs - victim holds pillow over injury
  - 4) upper arm - rigid splint on outside; wrist sling and swathe
  - 5) elbow - straight: rigid splint on inside of arm  
- bent: rigid splint on inside of arm; wrist sling
  - 6) forearm/wrist - rigid splint; sling and swathe
  - 7) hand - keep hand in position of function with a wadded cloth in palm; tie hand to rigid splint; sling and swathe
  - 8) finger(s) - splint same as hand or tape finger to uninjured finger and apply sling
  - 9) pelvis/hip - long backboard
  - 10) thigh - tie legs together or use 2 long boards or traction splint
  - 11) knee - straight: rigid splint behind leg  
- bent: rigid splint on outside of leg
  - 12) lower leg - rigid splints on sides or tie legs together
  - 13) foot/ankle - pillow splint
  - 14) toe - tape toe to uninjured toe
- g: swathe - binder (usually a cravat bandage) tied around body to hold arm against body to decrease movement; used on most

- upper extremity fractures
- h: rigid - must be long enough to include adjacent joints; examples include padded boards, 40 pages of folded newspapers, or cardboard

### XIII: Moving and Rescuing Victims

#### A: Emergency Moves

- a: if there is a fire, pull the victim away from area as quickly as possible
- b: danger in aggravating spine injury
- c: pull victim in the direction of the long axis of the body
- d: types of moves
  - 1) pack-strap carry
  - 2) piggyback carry
  - 3) fireman's carry
  - 4) cradle carry
  - 5) one-person assist
  - 6) sling drag
  - 7) clothing drag
  - 8) shoulder drag
  - 9) fireman's drag
  - 10) blanket drag
  - 11) ankle drag

#### B: Nonemergency Moves

- a: if the victim needs to be moved to gain access to others in a vehicle, give due consideration to injuries before and during movement
- b: all injured parts should be immobilized before moving and then protected during the moving
- c: types of moves
  - 1) 2 person assist
  - 2) extremity carry
  - 3) 2-handed seat carry
  - 4) 4-handed grip
  - 5) 2-handed grip
  - 6) chair carry
  - 7) hammock carry

Standards: 2.1 (E1-5) 2.2 (B1-5) 2.3 (B1-3, 6,7)

WRS: 5.1-5.9

Literacy Standards: RH.9 (10-4, 10-6, 10-7, 10-9)

.11 (12-4, 12-7, 12-8, 12-9)

## **Bibliography**

First Aid: Taking Action: McGraw Hill Education 2007

DVD: Standard First Aid, CPR and AED: McGraw Hill Education 2007

## **Videos**

Asthma Management in School

Rescue 911: Worlds Greatest Recues

Rescue 911: Three recorded episodes from television

National Safety Council First Aid

Sprains and Strains

What Should I Do: The Basics of First Aid

## MANCHESTER REGIONAL HIGH SCHOOL

### COURSE OUTLINE: Drug and Alcohol Education

Unit I: Necessity for increased knowledge in Drug Education

Unit II: Discovery of individual needs  
a. Basic physical needs  
b. Basic psychological needs

Unit III: Reasons for the uses and abuse of drugs  
a. Curiosity  
b. Social Pressure (peer pressure)  
c. Desire to please  
d. Fear of Unpopularity  
e. Escape from school, family, etc.  
f. Boredom  
g. Rebellion against authority  
h. Despair and frustration  
i. To prove that they can control drugs  
j. To relax  
k. To fulfill a purposeless life  
l. To shock the “establishment”

Unit IV: Marijuana (Cannabis)

#### A. Specifics

1. Medical use – none in the United States (used in the Middle East)
2. Dependence – Psychological not physical
3. Abuse – May cause drowsiness or excitability, dilated pupils. May cause excessive talking, laughter, hallucinations, and feeling of euphoria. Sense of time, distance, vision, hearing may be distorted. Ability to perform certain tasks may be impaired (drive autos, operate machinery, etc.) May cause dizziness, dry mouth, burning eyes, frequent urination, diarrhea, nausea, hunger (particularly for sweets)
4. Tolerance – (controversial point) no clear medical determination to date
5. Taken – smoked or orally
6. Controls – Marijuana Tax Act (1937) Federal

## B. Comments

1. Legally defined as a narcotic at present
2. Acts like alcoholic (loosens inhibitions)
3. Can have unpredictable effects
4. A “learned substance” – it will do for a person what he wants it to do for him
5. Used in some religious rites in the Far East
6. Physical harm not established
7. May lead to other drugs if the group (subculture) also uses other drugs
8. Found in resin from flowering tops and leaves of female Indian hemp plant
9. Potency varies with geographical location and time of harvest
10. Since reaction to marijuana is psychological and to heroin physical, the use of one does not necessarily lead to the other.

## Unit V:

### Barbiturates and Amphetamines

#### A: Barbiturates – (sleeping pills)

1. Specifics
  - a. Medical use – sedation, insomnia, epilepsy, high blood pressure, nervous and mental conditions
  - b. Dependence – physical and psychological
  - c. Tolerance – created
  - d. Abuse – drowsiness, staggering, slurred speech
  - e. Taken – orally or by injection
  - f. Controls – Drug Abuse Control Amendments (1956) (Federal)
2. Comments
  - a. Prescription
  - b. Original prescription expires after six months
  - c. Only 5 refills permitted within this period
  - d. Dependence generally occurs only with the use of high doses for a protracted period of time
  - e. Combination of barbiturates and alcohol extremely dangerous
  - f. Names usually end in “al”
  - g. Synthetics – made from coal tar
  - h. Capsules – usually colored (nicknames pertain to color)
  - i. Produce – physical and strong psychological dependence
  - j. Serious damage may result

- k. Detoxification – extremely dangerous if not conducted under medical supervision
    - reduction of ¼ grain for user may lead to Lethal convulsions
  - l. Degree of use greater than opiates
  - m. Under medical supervision – safe and effective
  - n. More people die from barbiturate poisoning than from any other drug
3. Withdrawal Symptoms of Barbiturates (sleeping pills)
- a. 8-12 hours after last dose (abuser starts to improve)
  - b. 12-24 hours – increasing nervousness, headaches, anxiety, muscle twitching, tremors, weakness, insomnia, sudden drop in blood pressure (may faint if tries to stand suddenly)
  - c. 24 hours – symptoms very severe
  - d. 26-72 hours – convulsions resembling epileptic seizures may develop
  - e. May last as long as eight days
  - f. Delirium Tremors may develop
  - g. Convulsions may be fatal

B: Amphetamines (pep pills, diet pills, amphetamine sulfate) (Benzedrine, dextro-amphetamine, methedrine (speed))

- 1. Specifics
  - a. Medical use – to counteract mild depression, reduce appetite, Narcolepsy (sleeping sickness) also used as a nasal vasoconstrictor in treatment of colds – for obesity, menopausal depression, senility, grief
  - b. Dependence – psychological – not physical
  - c. Tolerance – created
  - d. Abuse – excitation, dilated pupils, tremors, talkative, diarrhea, frequent urination, insomnia
  - e. Taken – orally or by injection
  - f. Controls – Drug Abuse Control Amendment ( 1965) (Federal)
- 2. Comments
  - a. Prescription only
  - b. Original prescription expires after six months
  - c. Only 5 refills permitted during this period
  - d. May be physically destructive – “burns out” body (over production of adrenaline)

- e. Involved with stimulant – sedative (walkers and sleepers) cycle

Unit VI: Hallucinogens (Psychedelics) “mind expanders” or “awareness expanders”  
May cause distortion of perception, dream images, hallucinations

A: LSD (lysergic acid diethylamide)

- 1: Most powerful of hallucinogens
- 2: Synthesized in 1934 from a fungus growing on rye
- 3: Obtained – small white pill, crystalline powder – powder – capsules – tasteless, colorless, odorless liquid – impregnated sugar cubes, cookies or crackers
- 4: Physical effects
  - a: Central nervous system – can produce changes in mood, behavior, and perception (sight, hearing, touch, body image, time, space relations)
  - b: Dilated pupils, tremors, elevated temperature and blood pressure
  - c: Tolerance – no clear medical evidence to date
  - d: No physical dependence
  - e: Splits chromosome structure – the possibility of creating permanent genetic damage is under investigation
- 5: Psychological effects
  - a: Trivial events and objects can assume unusual significance
  - b: Variety of moods (laughter to tears)
  - c: User may undergo impulsive behavior (suicidal attempts, disrobing, panic states, homicidal tendencies)
  - d: Psychological dependence (under investigation)
  - e: “Trips” – depends on dosage as to time
    - waves (alternating diminish in intensity)
    - some fatigue, tension, and recurrent hallucinations may persist for long periods
    - Psychological changes can persist for indefinite periods.
  - f: Psychotic states – being admitted into hospitals in increasing numbers
  - g: Reactions unpredictable – (even with experienced users some harmless, some “casualties”)
  - h: Delayed reaction may occur and recur for weeks
  - i: Controls – FDA – Drug Control Amendments (1966) (Federal)

## B: Other Hallucinogens

1. Mescaline
  - a. Derived from Mexican cactus, peyote
  - b. Used by certain southwest Indians in religious tribal rites
  - c. Available as crystalline in capsules
  - d. Available as liquid in vials
  - e. Can be obtained as green-brown cloudy liquid
  - f. Can be obtained as a whole cactus "bottom"
  - g. Injected or taken orally often in tea, coffee or some beverage (because of its bitter taste)
  - h. Dependence – psychological not physical
  - i. Tolerance – created
  - j. Abuse – can cause excitation, hallucinations or rambling speech
  - k. May result in visions seen in vivid colors
  
2. Psilocybin
  - a. Derived from mushrooms found in Mexico
  - b. Used in some Indian religious rites
  - c. May produce hallucinations
  - d. Available in crystalline powder or liquid
  - e. Dependence – psychological not physical
  
3. DMT (dimethyltryptamine)
  - a. "Watered down" version of LSD
  - b. Derived from seeds of certain West Indian and south American plants
  - c. Also prepared synthetically
  - d. Powder used as "snuff" for centuries – still used by some Indians (Mexico and Southwest United States)
  - e. Reactions shorter than LSD (approximately ½ hour)

Unit VII: The Opiates and Cocaine, Crack – all produce physical and psychological dependence – not harmful to society or the individual if properly handled – use learned through connection with sub-culture group (in the case of the "street heroin addict")

A: Opium – seldom used by American addicts (except in its derivatives), milky juice extract from unripe seeds of opium poppy which is processed to a dark gummy extract bitter taste, heavy disagreeable odor when smoked in pipe may cause dreamy stupor

B: Morphine (derivative of opium)

- fine white powder
- usually adulterated with milk sugar (lactose) or other substances

- usually distributed in “bag” or “cap” (flat glassine packet)

1. Medical use – to relieve pain
2. Dependence – physical and psychological
3. Tolerance – create
4. Abuse – drowsiness, pinpoint, pupils, stupor
5. Taken – orally, pill form – one of the major ingredients in prescription cough syrup
6. Controls – Harrison Act (Federal)
7. Comments – The standard against which other narcotic analgesics are compared – legally available under prescription only – doctors usually avoid long use to prevent “accidental addiction”

C: Heroin (derivative of morphine) – most addictive of all opiates

1. Medical use – relieve pain (illegal in the United States even to the medical profession)
2. Dependence – physical and psychological
3. Tolerance – created
4. Abuse – drowsiness, stupor, pinpoint, pupils
5. Taken – sniffed or injected (orally for medical use in Germany)
6. Controls – Harrison Act (Federal)
7. Comments – Used medically in some countries – because of pressure by law enforcement, supplies have tended to be of low percentages – overdose can cause death

D: Codeine (derivative of opium) about 1/6 strength-Cheracol

1. Medical use – to relieve pain and suppress coughing
2. Dependence – physical and psychological
3. Tolerance – created
4. Abuse – drowsiness, pinpoint, pupils, stupor
5. Taken – orally, pill form – one of the major ingredients in prescription cough syrup
6. Controls – Harrison Act (Federal)
7. Comments – preparation containing specified minimal amounts are classified as “exempt” (differing in states) – can be obtained without prescription in some states

#### E: Paregoric

1. Medical use – to control diarrhea; to reduce discomfort of teething (local application)
2. Dependence – physical and psychological
3. Tolerance – created
4. Abuse – drowsiness, pinpoint pupils, stupor
5. Taken – orally
6. Controls – Harrison Act (Federal)
7. Comments – classified as “exempt narcotic” – prescription not needed in some states

#### F: Synthetic Opiates (continued)

1. Meperidine (morphine like drug) trade name Demerol
  - a. Medical use – to relieve pain
  - b. Dependence – physical and psychological
  - c. Tolerance – created
  - d. Abuse – orally or injected
  - e. Taken – orally or injected
  - f. Controls – brought under the Harrison Act (1944) (Federal)
  - g. Shorter acting than morphine – withdrawal symptoms appear quickly – prescription only
2. Methadone (morphine-like drug)
  - a. Medical use – to relieve pain-used to “block” craving for heroin in some individuals
  - b. Dependence – physical and psychological
  - c. Tolerance – created
  - d. Abuse – same morphine
  - e. Taken – orally or by injection
  - f. Controls – brought under the Harrison (1953) (Federal)
  - g. Comments – longer acting than morphine – withdrawal symptoms develop more slowly, are less intense and more prolonged

#### G: Cocaine/Crack

1. Origins – obtained from leaves of cocoa plant (South America) – not the same as cocoa (from cocoa plant) – odorless, white crystalline powder, bitter taste
2. Specifics
  - a. Medical Use – local anesthetic (although rare today)
  - b. Dependence – Psychological not physical
  - c. Tolerance – (controversial point) – no clear medical determination to date

- d. Abuse – extreme excitation, tremors, hallucination – may produce euphoria; a sense of increased muscle strength; anxiety and fear – pupils dilate; increase in heartbeat and blood pressure – stimulation followed by period of depression – may depress heart and respiratory functions so that death occurs
  - e. Taken – sniffed or injected
  - f. Controls – Harrison Act (Federal)
3. Comments
- a. Although pharmacologically not a narcotic, classified as such in Federal and State laws
  - b. Combined with heroin to counteract sedation
  - c. May produce violent behavior
  - d. No withdrawal symptoms

#### H: General Effect on Opiates

- 1. May reduce sensitivity to both physical and psychological stimuli and produce a state of euphoria in beginning and recently detoxified users
- 2. Fear, tensions and anxieties may be dulled
- 3. Addict may become lethargic and indifferent to his environment and personal situation
- 4. A pregnant woman may produce an addicted child
- 5. Side effects – nausea, vomiting, constipation, itching, flushing, constriction of pupils, respiratory depression

I: Withdrawal – Symptoms of Opiates - typical – varies with the degree of physical dependency, is related to the amount of the drug customarily used and to the individual's physiological reactions)

- 1. Onset may start from about 4 hours on after last dose
- 2. 12-24 hours – eyes and nose runs, excessive yawning, excessive sweating, pupils enlarge, “goose flesh” may appear
- 3. 35 hours – cramps in back, legs, and abdomen, painful twitching, vomiting, diarrhea, loss appetite, fever, jerking of leg muscles (kicking the habit)
- 4. 48-72 hours – peak of suffering
- 5. 5-10 days – tapering off period, symptoms gradually diminish
- 6. Weariness, insomnia, nervousness, muscle aches, pains may persist for several weeks
- 7. In extreme cases – death may result

#### J: Definition used in relation to drugs

- 1. Dependence – a state arising from the repeated administration of a drug on a periodic or continuous basis – refers to a type – Examples:

- “Drug dependence of the heroin type”
  - “Drug dependence of the cocaine type”
  - “Drug dependence of the barbiturate type”
- a. Physical dependence – an adaptation wherein the body:
    - “Learns” to live with the drug
    - “Learns” to tolerate increasing doses
    - Reacts with withdrawal symptoms when deprived of its (abstinence syndrome)
2. Tolerance – refers to the body adapting to the substance so that increasing doses are required for any or all of the following reasons:
    - a. In order to obtain an effect equal to the initial dose
    - b. To prevent withdrawal symptoms. (Tolerance can occur within physical dependence)
    - c. Addiction – a state of periodic or chronic intoxication produced by the repeated consumption of a drug and involves Tolerance, Psychological dependence, no physical dependence, and a desire (not a compulsion) to continue taking the drug for the feeling of well-being received.
    - d. Habituation – a condition, resulting from the repeated consumption of a drug, which involves little or no evidence of tolerance, some psychological dependence, no physical dependence, and a desire (not a compulsion) to continue taking the drug for the feeling of well-being received.
    - e. Abuse – Drugs that are not obtained by prescription, used without medical knowledge or supervision, used in amounts beyond that for which medically intended.

#### K: Alcohol use and abuse

1. Alcohol: What it is and what it does
  - a. Alcoholic Beverages
  - b. How alcohol works in the body
  - c. How alcohol affects the body
  - d. How alcohol affects behavior
  - e. How alcohol affects mental processes
2. What Determines the Effects of Alcohol
  - a. Blood Alcohol level
  - b. Rate of absorption
  - c. Rate of consumption
  - d. Type of beverages
  - e. Motivation

- f. Experience
3. Development of Drinking Habits
    - a. Drinking and the family
    - b. Drinking and teenagers
    - c. Drinking and driving
  4. Alcoholism
    - a. What is alcoholism
    - b. What causes alcoholism
    - c. Physical factors
    - d. Psychological factors
    - e. Sociological factors
    - f. Treatment

- Unit VIII: Social Effects of Drug Abuse
- a. Great waste of human talent and energy
  - b. Destruction of personal and family relationships on any socioeconomic level
  - c. Anti-social and criminal behavior while under the influence
  - d. Stealing and other criminal acts in order to keep a drug supply.

- Unit IX: Alternatives to the use of Drugs – What can be done to guard against abuse?
- a. The only sane policy is complete avoidance except under the care of a physician
  - b. Adopt sound mental health habits
    1. Develop an attitude toward stress, tension, anxiety, and pain as useful signs of hidden problems.
      - a. Define your problem
      - b. Try to find a positive way to solve your problems
      - c. Substitute a worthwhile project
      - d. Learn to live with situations that can't be immediately changed
    2. Consult a qualified professional for help with chronic unhappiness

- Unit X: Current Laws Relating to Control of Drugs
- A. International (United Nations)
    1. The Permanent Central Opium Board
    2. Drug Supervisory Body
      - a. Studies legitimate narcotic needs throughout the world

- b. Encourages production and distribution quotas limited to those needs
- 3. Commission on Narcotic Drugs – gives technical assistance to countries requesting it.
- 4. World Health Organization (WHO) – disseminates information and internationally agreed upon medical and health standards
- 5. Interpol (International Criminal Police)
  - a. Acts as a clearing house for information about crimes and criminals
  - b. Does not have any powers to enforce laws against drug traffic

B. Federal

- 1. Harrison Act (1914) and amendments (amended seven times). A stamp tax act tax brings it under the Treasury Department Provisions
  - a. Registration of individuals and firms which manufacture, buy or sell narcotics
  - b. Marijuana Tax Act (1937) - Provides controls over marijuana similar to the controls the Harrison Act has over narcotics
  - c. Opium Poppy Control Act (1942) – Prohibits the growing of opium poppies in the United States except under license
  - d. Bogs Act (1951) – Establishes mandatory, severe penalties for conviction on narcotics charge.
  - e. Bogs – Daniel Amendment (1956) – Legislation intends to impose very severe penalties for those convicted on narcotics or marijuana charges
  - f. Drug Abuse Control Amendments (1956) – Adopts strict controls over stimulants, depressants, LSD, and similar substances with provision to add new substances as the need arises
- 1. Specific penalties for violation of the Drug Abuse Control Amendments
  - a. First offender - \$1000 fine or up to a year in jail, or both
  - b. Subsequent offenses - \$10,000 fine, up to 3 years in jail, or both
  - c. Sellers to those under twenty-one - \$5000 or 2 years in jail, or both for first offender
  - d. Subsequent offenders - \$15,000 or 6 years or both

C. Penalties

- 1. \$20,000 fine and a (5 to 20 year term) (first offense)
- 2. Subsequent offenses – same fine and a 10-40 year term
- 3. Sale to persons under 18 (parole and probation denied) – life term or even death

- D. Illegal Possession
  - 1. Fine of 2-10 years (first offense)
  - 2. 5-10 years (second offense)
  - 3. 10-20 years for subsequent offenses
  - 4. Parole and probation denied after first offense

Unit XI: Steroids

- A. Social reasons for abuse
- B. Availability
- C. Dangers of overuse
- D. Laws pertaining to illegal use
  - 1. Students will understand the reasons for steroid use.
  - 2. Students will understand the dangers of steroid use.

Unit XII: Tobacco

- A. What is a cigarette
- B. Smoking and disease
- C. Why people smoke
- D. Kicking the habit
  - 1. Students will understand the components of cigarette smoke
  - 2. Factors that influence smoking
  - 3. Ways to quit smoking

Drug and Alcohol education will be incorporated into the curriculum in the following manner:  
Time Frame: 10 hours

- Grade 11:
- First Aid for individuals under the influence of drugs.
  - Peer group influence and the need to understand personal choices.

**Bullying**

**Activity Statement:**

Students will learn about bullying.

**Materials:**

- 1. Handout
- 2. Black/whiteboard or poster paper
- 3. Chalk/Markers

**Procedures:**

1. Distribute a Bullying packet to each student.
2. Discuss the definition of bullying, concentrating on the underlined words. Be sure each student has a clear understanding of bullying. (5 mins.)
3. Ask students to complete the Bullying Stories sheet in the packet. Ask them to be honest, but remind them that they are not to use any names or identify the bully or the victim. (10 mins.)
4. Discuss the students' Bullying Stories worksheets. Allow students to discuss their emotions surrounding the bullying instances. (10 mins.)
5. On the black/whiteboard or on poster paper if you have neither, ask students to brainstorm word associations with "bully" (like our web activity from the in-service). Ask students, "When I say 'Bully', what do you think of?" Record every answer, regardless of whether or not it's a myth (as you learned in the in-service) or seems off track. DO NOT let students name bullies. After students have exhausted their word associations, feel free to discuss this list as you see fit. (10 mins.)
6. Ask students to complete the "Identifying Bullying Behavior" worksheet in the packet, if time permits. Otherwise, you'll have them complete it next time. (5 mins.)
7. **Collect students' packets before the first period bell, as we'll be having two more bullying STAT sessions.**

#### **Sample Discussion Questions:**

1. How did you feel when you were bullied/when you bullied another?
2. Why do you think some people become bullies/become victims of bullies?
3. Do you think there are a lot of bullies in our school? (remember: no names!)
4. What do you think can be done about bullying behavior?

#### **Activity Statement:**

Students will learn how to properly use 'I' statements in everyday situations.

#### **Materials:**

4. Handouts
5. Black/whiteboard or poster paper
6. Pen

#### **Procedures:**

8. Review Normal Conflict vs. Bulling and Sympathy vs. Empathy. (5 mins.)
9. Write on the board or poster paper the definition of 'I' Statements
  - a. 'I' Messages are a clear, assertive, non-threatening, respectful way of telling another person how you feel and what you want.
10. Define the 'I' Statement and make sure students have a clear understanding. (5 mins)
11. Distribute "Appropriate vs. Inappropriate Responses" worksheet and have students complete and discuss answers. (10 mins)
12. Orally give students 3 bullying examples and the improper response. Have students create the proper 'I' statement. (10 mins)

## Examples

1. You give a wrong answer in class, and another student laughs and calls you stupid.  
Incorrect: You tell them to shut up.  
What is correct 'I' statement?
  2. A student that is in several of your classes thinks he is funny and tries to trip you in the hall, but this upsets you.  
Incorrect: You fake laugh and blow it off.  
What is correct 'I' statement?
  3. You found something on another kid's MySpace page about you that made you mad.  
Incorrect: You come to school; start a fight with the girl who wrote it.  
What is correct 'I' statement?
13. Discuss why more people do not use 'I' statements.  
Reasons: Not enough self-esteem, not their right to say something (5 mins.)
14. Use examples from students' Bullying Surveys and ask students how they should properly handle the situation as a victim and a bystander. **Keep examples anonymous!!!** (5 mins.)

### **Sample Discussion Questions:**

1. How is normal conflict different from bullying?
2. Why is it important to use 'I' Statements?
3. The importance of bystanders for bullying prevention

### **Activity Statement:**

Students will become aware of the school consequences associated with bullying behavior.

### **Materials:**

7. Handouts
8. Black/whiteboard or poster paper
9. Pen

### **Procedures:**

15. If you were unable to cover any of the first two days materials please do so first thing.
16. Review 'I' Statements. (5 mins.)
17. Distribute the 'Teasing vs Bullying' Handout.
18. Identify and discuss the difference between Teasing vs. Bullying and make sure students have a strong understanding of the two types of situations. (10 mins)
19. Use examples from students' Bullying Surveys and ask students if they think some of the instances are teasing or bullying.
20. Distribute Bullying Discipline Rubric
21. Briefly discuss how to read the rubric and ask students if they have any questions (10 mins)
22. Distribute Exit inventory worksheet and have students complete. (10 mins)

Standards: 2.1.12.A1-12,C1-3,E1-4,2.212. B1-12,E1+2,2.3.12-A1-3,C1-3, 2.612 A 3-5