

Poison Prevention Program Grades 9 - 12

I Introduction

- a. Read the objectives.
- b. About the Poison Center.
 - The Wisconsin Poison center is located at Children’s Hospital of Wisconsin. Regardless of their location, poison centers nationwide serve people of all ages.
 - In the year 2023, the Wisconsin Poison Center answered over 39,000 phone calls. 80% of our poison cases are managed on site, without the need for referral to a physician or emergency department, saving multi millions of dollars in health care costs every year.
 - The poison center is open 24 hours a day, 7 days a week, 365 days a year.
 - Registered nurses or pharmacists, specially trained in poison information and poison management, staff the poison center phones.
 - The poison center has a language line service for all non-English speaking callers.
 - Calls come from homes, workplaces, schools, law enforcement officials, and health care facilities, including hospitals, chronic care facilities, nurse lines, doctor’s offices and ambulance services.
 - The nationwide poison phone number is **1-800-222-1222**. In Wisconsin this number will route to the Wisconsin Poison Center. If this number is dialed in another state, it will route the call to the nearest poison center.

II Poison Information

- a. **Define poison:**
 - Poisons are substances that can hurt you or make you sick if you swallow them, inhale them, get them on your skin or in your eyes.
 - A poison is any product that is not used for its intended purpose and gets into the body.
 - A substance that may damage or injure tissues or organs
- b. **How and Why Children Get Poisoned**
 - Most reported poisonings occur in children < 6 yrs of age, the majority of poisonings are accidental.
 - Children are too young to read and understand the meaning of poisons and poison labels.
 - Children are naturally curious
 - Touching, smelling and tasting things are how children explore their world.
 - Children think that poisons look bad and taste bad, when in fact many are pretty and taste good. (Blue glass cleaner is pretty and mouse poisons often taste like peanut butter!)
 - Many poisons look like good things to eat and drink (apple juice resembles most pine cleaners, decongestant tablets look like red M&M’s candies)
- c. **How and Why Adults Get Poisoned**
 - Abuse of products is more commonly seen in school-aged children, teens and adults.
 - Alcohol, inhalants, tobacco, marijuana, cocaine, methamphetamines (like ADD medications) are common substances abused in these age groups

***NOTE: for more information on Drugs of Abuse, see section III of this outline.*

- Misuse of products is also more common in older age groups: Mixing cleaning products which can form a harmful gas, incorrectly taking their medication, mistakenly taking their medication twice and taking someone else's medication are all examples of misuse of products.
- d. Substances most frequently involved in poisonings.
1. **For children less than 5 yrs of age**
 - Personal Care products/cosmetics: example: perfume
 - Household cleaning agents: example: glass cleaner
 - Over-the-counter pain medication: example: Acetaminophen and ibuprofen pain relievers and fever reducers.
 - Multivitamins
 - Nontoxic foreign bodies: example: marble
 2. **For adults > 19 yrs of age**
 - Over-the-counter pain relievers: example: acetaminophen, aspirin and ibuprofen.
 - Sedative medications: example: prescription sleeping pills.
 - Antidepressant medications: example: Prozac or other prescription medications used to treat depression.
 - Household cleaning agents: example: furniture polish
 - Alcohols: example: alcoholic beverages
- e. Poison Prevention: Things you can do to prevent accidental poisonings:
- Keep cleaning products, medicines and other poisons out of the reach of children.
 - Lock up poisons, use safety devices on cupboard doors and medicine cabinets
 - Don't take medicines when children are watching- children like to imitate adults
 - Do not call medicine "candy"
 - Keep medicines and cleaning products in their original containers. Do not put poisons in beverage containers (soda bottles) or food containers.
 - **ALWAYS** read label instructions and warnings.
 - Always keep products and medicines with you.
 - Post the poison center number near your telephone **1-800-222-1222**.
- f. First aid for poisonings
1. Swallowed poison-separate the product and the person. Do NOT give anything to eat or drink. Do NOT make person vomit. Call Poison Center immediately.
 2. Inhaled poison-get fresh air immediately for 15 minutes. Call Poison Center for further treatment information.
 3. Poisons on the skin. Remove any wet or contaminated clothing and jewelry. Flush skin with clean water for 15 minutes. Call Poison Center for further treatment information.
 4. Poisons in the eye. Remove contact lenses. Flush eye with clean warm water for 15 minutes. If a shower is available, the patient can stand in the shower (or an adult can hold a child) and allow the water to run from the forehead down across the eyes. Or have patient stand near a sink and turn their head to the side. Pour a stream of water from the outside corner of their eye and allow the water to run across their eye. Do NOT aim water directly into eye, as this can cause an injury. Call the Poison Center for further treatment information.
- g. **The Poison Center telephone number, review!**
1. The place to call if someone has been poisoned or someone has a question about poisons.
 2. Calls are answered 24/7/365.

3. National number, toll free 1-800-222-1222. The number will reach the caller's nearest poison center.
4. Enter the Poison Center number into your contacts in your cell phone, place near any landline phone and where chemicals or medicines are kept.
5. Calls are confidential or "private."

III Drugs of Abuse (DOA)

- a. Traditional drugs of abuse: alcohol, cigarettes and marijuana
****NOTE:** due to the large amount of educational materials available for alcohol, cigarettes and marijuana, this curriculum will focus on current trends in drugs of abuse.

- b. Current Trends in DOA

1. Over the Counter medication-medications that can be purchased without a doctor's prescription. They are readily available, legally purchased, relatively inexpensive, raise less suspicion with parents/caregivers if adolescents carry these medications.
 - Cough and Cold medications Abusers seek dextromethorphan (DXM) to get "high". This is the cough suppressant component in the OTC preparations. However, most of the combination preparations also contain acetaminophen (pain reliever/fever reducer), which can be toxic to liver when taken in relatively small quantities.
 - Often contain an antihistamine, which in larger doses can cause agitation and/or sedation, hallucinations and seizures.
 - Stimulants-common names include: No-Doz, Stay Awake, Vivarin, Metabolite, Metabolift, Stacker 2, Xenadrine, Hydroxycut.
 * Contain caffeine or ephedra
 - Sometimes marketed as weight loss aid and appetite suppressant.
 - Sometimes marketed as "natural" with ingredients listed as: Guarana or Ma Huang. These ingredients can be abused and dangerous if misused or abused.
 - Common effects of caffeine or ephedra include:
 - Increased heart rate and blood pressure
 - Increased body temperature and sweatiness
 - Tremors
 - Seizures
 - GI upset, including nausea and vomiting

2. Muscle enhancers/steroids and supplements

Definition: Any drug or hormonal substance chemically and pharmacologically related to testosterone that promotes muscle growth, increase virility and aggression.

Why are they used? To increase muscle size, increase in strength

Possible adverse effects/risks:

- Increased aggression,
- violent behavior, psychosis,
- dependency,
- depression upon withdrawal,
- liver dysfunction,
- heart enlargement,
- high blood pressure,
- acne,
- permanent breast enlargement (male and female),

- testicular atrophy,
 - Impotence.
 - OTC preparations may contain ephedra or ephedra like stimulants, ma huang(ephedra), or guarana(caffeine). Amount and purity of ingredients in “natural” supplements is not guaranteed.
3. Prescription Medications - commonly abused and readily available. (This curriculum focuses on the three most common types: Amphetamines, Sedative/hypnotics and Opiates- all of which have physical dependence/addiction potential.)
- **Amphetamines** - prescribed for treatment of attention deficit disorders and sleep disorders. Abused because of their “speed”/stimulant effects, but the effects of prescription medications can be more profound than the OTC stimulants. Effects include: increased heart rate, increased blood pressure, elevated temperature, agitation, anxiety, seizures.
 - **Sedative/Hypnotics** - prescribed for anxiety, sleep and seizure disorders. Common brand names: Valium, Xanax. Common effects can be drowsiness, slurred speech, poor coordination, and slowed breathing. When combined with some other drugs or alcohol can lead to respiratory arrest.
 - **Opiates** – prescribed as pain relievers for chronic illness or traumatic injury, post-surgical pain. Common names include: Percocet, Vicodin, Oxycontin, Darvocet. Effects of these medications can include: sedation, small, “pinpoint” pupils, difficulties with coordination, slowed breathing.
4. Illegal Drugs
- a. **Amphetamine/methamphetamines:**
Street names: speed, crystal meth, crank, Ice.
Effects: increased heart rate, increased temperature, tremor, seizures, nausea, vomiting, sweating.
Routes: Ingested, snorted, injected.
- b. **Cocaine/Free Base/Crack**
Street Names: Coke, Blow, Snow, Nose Candy,
Effects: increased blood pressure, increased heart rate, cardiac arrhythmia, cardiac arrest, coma, respiratory depression, bleeding in the brain.
Routes: cocaine hydrochloride: snorted, injected, ingested Free Base/Crack: smoked
- c. **Hallucinogens**
- **LSD- most potent hallucinogen**
Street name: Acid, Battery acid, Pane
Effects: hallucinations, anxiety, confusion, paranoia, dilated pupils, increased body temperature, increased heart rate and blood pressure, sweating, loss appetite, insomnia, dry mouth, tremors.
Route: orally Common forms: gelatin like squares called window “panes”, small squares of paper called “blotters”.
 - **PCP-phencyclidine**
Street names: Angel Dust, Magic Dust, Rocket Fuel, Crystal
Effects: like “potent” marijuana, unpredictable effects, increased heart rate, muscle rigidity, seizures, depressed breathing, coma, withdrawn state, pupils move in rotary fashion, prolonged psychotic state

Forms: crystals, powder, tablets, liquid, and recently marijuana joint or regular cigarette soaked in liquid PCP.

- **Ketamine** - used as anesthetic in veterinary medicine.
Street names: K, Special K, Vitamin K,
Routes: snorted, inhaled, injected, smoked
Effects: nausea, vomiting, increased heart rate, dry mouth, loss of consciousness/black outs, amnesia, delayed/reduced sensation, difficulty moving, stumbling
Slang for the experience: tripping, “K-ing”.

d. Club Drugs/Date Rape Drugs/Downers

GHB (gamma hydroxybutyric acid)

Street names: Grievous Bodily Harm, Liquid X, Easy Lay, Great Home Buys

Looks like water-often added to beverage or alcoholic beverage

Effect: sedation

Historically marketed as dietary supplement and promoted for insomnia, anxiety, exercise endurance

Banned because of reports of coma, apnea, death and reported use in assaults.

e. Inhalants

Definition: Any chemical inhaled to get “high”, sometimes called VSA or volatile substance abuse.

Street names: huffing, bagging, ballooning, sniffing

Effects: arrhythmias (irregular heart rhythms), sudden death, suffocation, liver enlargement, kidney failure, tremors, short term memory loss, loss of sense of smell, staggering/stumbling

Forms: common household products like hairspray, school supplies like correction fluids and keyboard cleaners, and automotive supplies like gasoline, and propane.

IV Evaluation

At the end of the activity, each student should be able to:

1. State one definition of “poison”.
2. Describe the immediate first aid for a poison exposure to the skin, eyes, a swallowed poison and an inhaled poison.
3. Discuss why poisonings occur more often in children 5 years of age and younger.
4. State 2 ways to protect themselves or others from an unintentional/accidental poisoning.
5. State one current drug of abuse, the drugs possible immediate consequences and the long-term consequences of its abuse.