



Medical Society of Delaware

LEADING THE WAY TO A HEALTHY DELAWARE

# CAMPAIGN FOR KIDS



Promoting the Health and Well-Being of Delaware Youth ... "It's OBVIOUS"

# "It's OBVIOUS"

# *“Helping Teens Make Intelligent Decisions”*

Topics to be discussed:

- Texting and driving
- Consumption of energy drinks
- Health risks associated with use of computers
- Gun safety

# *“Helping Teens Make Intelligent Decisions”*

## Objectives:

- Understand the danger of teenage texting and driving and discuss strategies to reduce fatalities.
- Clarify what exactly are energy drinks and educate about their harmful effects.
- Identify the health risks of computers and what can be done to reduce identified risks.
- Identify strategies to reduce the risk of firearm injury.

# *Texting and Driving Statistics*

Growing trend and national epidemic: quickly becoming one of country's top killers

Texting while driving causes:

- ▶ 1,600,000 accidents per year

Source: National Safety Council

- ▶ 330,000,000 injuries per year

Source: Harvard Center for Risk Analysis Study

- ▶ 11 teen deaths every day

Source: Insurance Institute for Highway Safety Fatality Facts

- ▶ Accounts for nearly 25% of all car accidents

[www.textinganddrivingsafety.com/textinganddrivingstats](http://www.textinganddrivingsafety.com/textinganddrivingstats)

# *Texting and Driving Does Three Dangerous Things:*

- ▶ Removes the mind from driving
- ▶ Removes your hands from the wheel
- ▶ Removes your eyes from the road

# *Texting and Driving Statistics*

Texting while driving is:

- ▶ About 6 times more likely to cause an accident than driving intoxicated
- ▶ The same as driving after 4 beers
- ▶ The #1 driving distraction reported by teen drivers
- ▶ Makes you 23 times more likely to crash
- ▶ The same as driving blind for 5 seconds  
(If traveling 55 mph, this would be the length of a football field.)

National Highway Transportation Safety Administration

National Highway Transportation Safety Administration

Virginia Tech Transportation Institute



# *Cellular Phone Use While Driving*

Teens and Adults texting behind the wheel is

# DWI

“Driving While Intexicated”

[www.textinganddrivingsaftey.com/textinganddrivingstats](http://www.textinganddrivingsaftey.com/textinganddrivingstats)



# *Cellular Phone Use While Driving*

If it's so dangerous, why do teens text and drive?

- ▶ Convenient
- ▶ Don't think it's a problem
- ▶ Adults do it



# *Cellular Phone Use While Driving*

## It's Convenient

- 82% of Americans ages 16-17 own cell phones
- 52% talk on the phone while driving
- 34% say they have texted while driving

[www.textinganddrivingsafety.com](http://www.textinganddrivingsafety.com)

# *Cellular Phone Use While Driving*

## It's Not a Problem

- 77% of young adults are very or somewhat confident they can text while driving
- 55% of young adults claim it's easy to text while they drive

**But, it is a problem!**

Teens who text spend 10% of their driving time outside their own lane!

[www.textinganddrivingsafety.com](http://www.textinganddrivingsafety.com)

# *Cellular Phone Use While Driving*

## Many Adults Do It

- 48% of young drivers have seen their parents drive while talking on cell phones
- 15% of young drivers have seen their parents text while driving
- 48% of kids ages 12-17 have been in the car while the adult driver was texting

**Solution: Set an example for your teenagers.  
Don't text or talk on the phone when driving.**

[www.textinganddrivingsafety.com](http://www.textinganddrivingsafety.com)

# *Cellular Phone Use While Driving*

## What Can Be Done About Texting and Driving?

- Educate teenagers that texting and driving has been banned in Delaware
- 39 states, plus Washington, DC have banned texting and harsher punishments for doing so are being enacted

# Delaware Texting While Driving

- ▶ Banned in Delaware, Spring 2010
- ▶ Banned use of hand held cell phone, PDA's, laptops, pagers, video games
- ▶ Can have hands free devices while driving (seems illogical because the drivers are still taking their minds off the task at hand)
- ▶ Concept of disturbances not taken into account – drinks coffee or listening to the radio

# How to Stop Texting and Driving?

- ▶ Out of sight, out of mind (put your phone in a place you can't reach).
- ▶ Silence is golden – turn off the notifications. The less you hear, the less tempted you will be.
- ▶ Designate a texter in your car if driving with another individual.
- ▶ Parents – take a text-free, talk-free driving pledge with your teen. **LEAD BY EXAMPLE.**

Source: [onlineschools.com](http://onlineschools.com); Quinstreet, Inc, 2012



# STOP THE TEXTS, STOP THE WRECKS!



National Highway Transportation Safety Administration





# ENERGY DRINKS »»

The Good, the Bad, and the Ugly



# Energy Drinks

## WHAT ARE THEY?

- ▶ Beverages purported to provide mental or physical stimulation.
- ▶ Contain large amounts of caffeine and other stimulants.
- ▶ Contain sugar or other sweeteners, herbal extracts, amino acids.
- ▶ May or may not be carbonated.
- ▶ Sales in US was more than \$10 billion in 2012 – the fastest growing part of the beverage industry.

Source: New York Times, “Energy Drinks Promise Edge, but Experts Say Proof is Scant,”  
Barry Meier, January 1, 2013



# Energy Drinks

- ▶ Now under scrutiny by FDA due to deaths linked to high caffeine levels.

▶ **CAFFEINE!**

is the world's most commonly used drug.

- ▶ Ingredient in Red Bull & Monster Energy is

**GLUCUROLACTONE**  
(related to glucose)

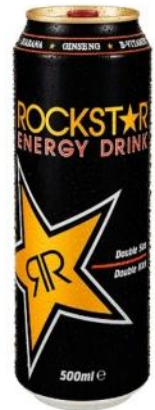
# Energy Drinks

## Energy Drink Consumer Advertising

Red Bull “gives you wings”

Rock Star “scientifically formulated”

Monster Energy “is a killer energy brew”



# Energy Drinks

NOW UNDER SCRUTINY BY THE  
FOOD AND DRUG ADMINISTRATION  
(FDA) DUE TO DEATHS LINKED TO  
HIGH CAFFEINE LEVELS.



**U.S. Food and Drug Administration**  
Protecting and Promoting *Your* Health

# Energy Drinks

CAFFEINE IS THE WORLD'S MOST  
WIDELY USED DRUG.

ENERGY DRINKS HAVE 3-5 TIMES THE  
AMOUNT OF CAFFEINE AS  
REGULAR SODA.



# Energy Drinks

## SAFE LIMITS OF CAFFEINE

- Up to 400 mg/day for healthy adults
- 200 mg/day for pregnant females
- 45–85 mg/day for children, depending on weight

Source: Consumer Reports.org



# Energy Drinks

## CAFFEINE CONTENT OF SELECT BEVERAGES

BEVERAGE	AMOUNT	CAFFEINE CONTENT
Coca-Cola	8 oz	23 mg
Coffee	8 oz	100 mg
Red Bull	8.4 oz	81 mg
Monster Energy	8 oz	92 mg
5 Hour Energy	1.9 oz	215 mg
Rock Star Energy Shot	2.5 oz	229 mg
5 Hour Extra Strength	1.9 oz	242 mg

Consumer Reports.org: “The Buzz on Energy Drink Caffeine”



# Energy Drinks

## ▶ Glucuro lactone

- Research found it was used in two 40 year-old studies in Japan that made rats swim better. No human studies were ever done!

• Craig A. Goodman, MD, University of Wisconsin

## ▶ Taurine

- Amino acid found in bile of bulls
  - May help prevent heart attacks in women with high cholesterol; however, far better supplements than energy drinks.
- ▶ Lack of evidence to substantiate claims that ingredients, apart from sugar & caffeine, provide any benefits.





# Energy Drinks

*They are not just bad for you,  
they are down right dangerous!*

- FDA reports linking 92 illnesses and 13 deaths due to 5 Hour Energy shots
- November 16, 2012 – FDA has posted adverse-event reports for two energy drinks:
  - ✓ 40 illnesses and 5 deaths related to Monster Energy
  - ✓ 13 illnesses and 2 lasting disabilities linked to Rock Star Energy

*Source: “More Deaths, Illness Linked to Energy Drinks,”  
Daniel DeNoon*



# Energy Drinks

From 2005–2009:



- Emergency Room visits involving energy drinks increased 10 fold:
  - ✓ 13,114 visits
  - ✓ Half were ages 18–25
  - ✓ Also involved drugs and alcohol

# Energy Drinks

## Case report of Maryland female

- 14 years old
- Died after consuming 2 energy drinks – Cardiac Arrhythmia related to caffeine toxicity

Source: Associated Press, June 26, 2013; NBC News Health;  
“Mom Sues Monster Energy Drink Over Teen’s Death”



# The Dark Side of Energy Drinks

## ► Harmful effects

*Elevate Heart Rate*

*Induce Arrhythmia and cause palpitations*

*Damage to Teeth (eats away outer layer of enamel – highly acidic)*

*Increased Anxiety*

*Possibly Increase Blood Pressure*

*Creates Headaches*

*Possible cause of Seizures, Strokes, Sudden Death*

# Energy Drinks



## *Message to Parents:*

- ❖ Encourage your teenager to avoid drinking these energy drinks
- ❖ Energy drinks provide TEMPORARY stimulation, but more likely will result in ENERGY LOSS and FATIGUE.







# POSITIVE EFFECTS OF COMPUTERS/ ELECTRONIC DEVICES

For Children:

- Improves spatial awareness
- Improves iconic skills (images and diagrams)
- Improves visual attention skills
- Improves attention span in ADD
- In autistic children, iPads helpful in teaching, learning, stimulating the brain
- Improves learning skills and prepares children for pre-school and beyond.





# POSITIVE EFFECTS OF COMPUTERS/ ELECTRONIC DEVICES

For Adolescents/Young Adults:

- Can help teens interact with others across US and world
- Social networking with sites like Facebook and Myspace can develop new relationships
- Internet access can increase knowledge on a variety of topics





# POSITIVE EFFECTS OF COMPUTERS/ ELECTRONIC DEVICES

For Adolescents/Young Adults:

- Use of Smart Phone applications to track their health and collect data in an organized way
- Nearly 13,000 health and fitness apps
  - Count calories
  - Pedometers
  - “Body Media”
  - “Luminosity”
  - Reduce stress with music
- Use of computers in school



# HEALTH RISK OF COMPUTERS/ ELECTRONIC DEVICES

Working on Computer for Long  
Periods of Time:

- Hands/Wrist:
  - Carpal tunnel syndrome
  - Tenosynovitis
  - Epicondylitis
  - Tendonitis
  
- Back/Neck:
  - Cervical strain
  - Thoracic strain
  - Lumbar strain
  - Shoulder/hips



# HEALTH RISK OF COMPUTERS/ ELECTRONIC DEVICES

Working on Computer for Long  
Periods of Time:

- Vision:
  - Eye strain fatigue
  - Blurred vision
  - Dry eyes
  - “20-20-10” rule
- Behavior:
  - Violent computer games can increase risk of aggressive behavior
  - Negatively impact school performance



# HEALTH RISK OF COMPUTERS/ ELECTRONIC DEVICES

Working on Computer for Long  
Periods of Time:

- Radiation:

Very low frequency radiation exposure (non-ionizing)

LCD monitor is best (no real effect on health)

- Sleep:

Using computer or Smart Phone before bed  
reduces melatonin





# All Computers and Electronic Devices Should Be Used in MODERATION

- Set limits on computer use (except for homework) to 2 hours or less screen time each day.
- Take frequent breaks
- Get teenagers to exercise and pursue other activities
- Ergonomic evaluation of desk and chair

# Adult Statistics

- Majority of adults (62%) use internet or email at their job
- 50% of employed Americans check their emails on weekends
- 46% check email on sick day
- 34% check email when on vacation (11% do so often)
- 1 in 5 employed American email users send and respond to work-related emails off hours.



Heavy technology use is  
linked to

**FATIGUE**  
**STRESS**  
**SLEEP DISORDERS**  
**DEPRESSION**



# GUNS AND VIOLENCE



# Guns and Violence

## HOW BIG IS THE PROBLEM?

- ▶ One child/teenager is injured by a gun every hour.
- ▶ There are 7,351 visits to the ER every year due to gun injuries.
- ▶ 453 of these patients die from gun shot wounds.

Source: “Hospitalizations due to firearm injuries in children and adolescents,”  
Leventhal, Gaither, Sege; Pediatrics, January 27, 2014.



# Guns and Violence

## HOW BIG IS THE PROBLEM?

- ▶ The majority of the guns are from the person's home.
- ▶ One-third of all homes in the US have guns.
- ▶ 1.7 million children/teenagers live in a home with a loaded gun.

Source: "Hospitalizations due to firearm injuries in children and adolescents,"  
Leventhal, Gaither, Sege; Pediatrics, January 27, 2014.



# Guns and Violence

- ▶ US has highest rate of firearm related deaths among children <15 years old
- ▶ Nearly all unintentional firearm fatalities in children occur in or around the home.
  - 50% occur in home of victim
  - 40% occur in home of friend or relative

Source: Up to Date, November 11, 2013, “Prevention of Firearm Injuries in Children,” Gill, AC; and Wesson, D.



# Guns and Violence

ACCIDENTAL RELATED  
GUN INJURY

VS.

VIOLENCE/INTENTIONAL  
RELATED GUN INJURY

# Accidental Injury

## Example:

- 5-year old picks up a loaded gun on the coffee table and shoots his brother.

# Intentional/Violence

## Examples:

- Teenager who is vulnerable to bullying and stress is contemplating suicide and knows there is a loaded gun in his parent's dresser.
- Teenager who is angry at his teacher and fellow students and plans to seek revenge.

# Preventing Accidental Injury

- ▶ Case controlled study measured:
  - Association of firearm storage practice
  - Risk of unintentional & self-inflicted wounds
  - Identified 4 strategies, with each associated with decreased risk of firearm injury in gun-owning households:
    1. Store guns unloaded
    2. Lock guns away
    3. Separate ammunition from guns
    4. Lock ammunition separately away from guns

*(JAMA 2005)*

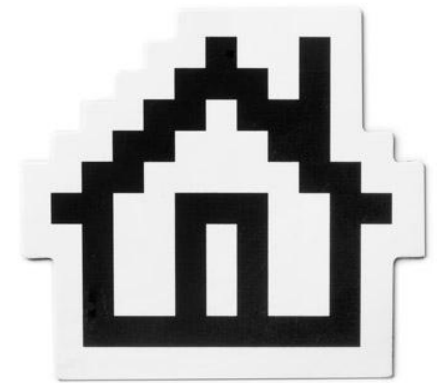


# Gun Safety

These four strategies, each associated with a decreased risk of firearm injury, can be used to prevent suicide and unintentional injury in children and adolescents in gun-owning households.



# Gun Safety



Keeping guns in the home is associated with an increased risk of homicide by a family member or relative.

Keeping guns in the home is associated with an increased risk of suicide by a family member.

# Gun Safety

Access to firearms increases the risk of violence against peers.

Firearms used in school-based shootings in the US were obtained from the homes of the perpetrators, their friends, or relatives.

# Gun Safety

## SO WHY KEEP GUNS IN THE HOME?

- Handgun owners typically keep guns in the home for self-defense
- Homeowner deaths caused by suicide, homicide, and unintentional injury outnumber deaths associated with self-defense by 40:1

Source: Kellerman, Al and Reay, DT. "Protection or Peril" N Engl J Med, 1986 in Uptodate, Sege, R 2013

# Gun Safety

It is true that firearms may be easily accessible even if not kept in the home.

# Gun Safety

Take Away:

Removal of guns from the home and the secured storage of guns in the home are *logical* strategies for reducing injury-related mortality.



# ► Gun Safety

## CITY OF WILMINGTON HAS A PROBLEM



□ City set a record in 2013:

- ✓ 154 people were shot
- ✓ 18 were fatalities

□ As of January 26, 2014:

- ✓ 10 people were shot
- ✓ 2 fatalities

# Gun Safety

## RISK FACTORS FOR VIOLENCE-RELATED INJURIES

- Previous history of fighting
- Violent discipline from parents
- Access to firearms
- Alcohol and drug use
- Gang involvement
- Exposure to domestic violence
- Media violence



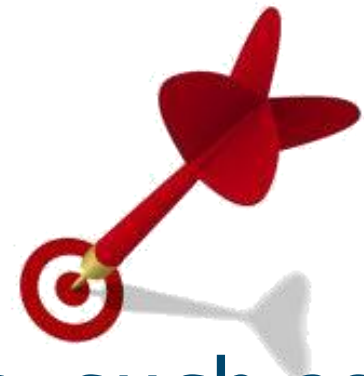
Source: The News Journal, January 27, 2014

The most effective approach to gun injury prevention involves the combination of several strategies:

**COUNSELING**  
**EDUCATION**  
**LEGISLATION**  
**REGULATION**



# Gun Safety



Targeted prevention programs, such as those identified by “Blue Prints for Violence Prevention,” may reduce risk factors.

An effort by the State of Colorado to identify model violence prevention programs and implement them.

Source: “Peer Violence and Violence Prevention,” Sege, Robert, Uptodate 2013.

# Gun Safety

## Other Strategies:

- Providing gun locks
- Gun safety program
- Gun safety/modification features  
(loaded chamber indicator, magazine disconnect device, grip safety device, firing pin block)
- Legislative efforts



# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?



Safest home is one without guns, but there is an incremental benefit to storing guns locked away, unloaded, ammunition stored in separate location.



AAP Connected Kids: “Safe, Strong, Secure.”

# ► Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?



### ➤ Media

- Limit child/teenager total media time to less than 2 hours/day
- No TV in bedroom
- Monitor programs for violence
- Remove computers/cell phones from the bedroom at night.
- Limit controversial programming



# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

### ➤ Talk To Your Children!

- Initiate discussions about family values, violence, sexuality, drugs





# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

➤ Keep your children involved in alternative entertainment

- Athletics
- Hobbies
- After school programs



# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

- Take your children to your doctor if you suspect depression, anxiety, or emotional problems



# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

- Teach your children conflict resolution skills





# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

- Evaluate your teen for impulsivity and don't ever let them carry a gun!



# Gun Safety

## HOW CAN YOU HELP YOUR TEENAGER?

- Refer to support services for help (school, clergy, counselors, police)



# Thank you!

*Stephen J. Kushner, DO*

*Immediate Past President, MSD*

*Family Physician, Christiana Care Health System*



Medical Society of Delaware

LEADING THE WAY TO A HEALTHY DELAWARE