Teens, Trauma, and Trouble Michele Herndon, MSN, RN, CPEN Trauma Nurse Coordinator







I have no disclosures.

- Brain Development
- Teen Developmental Stages
- #1 Cause of Teen Death
- Current Trends seen in the Media



The German chainsaw massacre: Teenager is injured after his friends almost cut off his hand with powerful weapon while trying to copy viral video they saw online

STI MOMS

EVENTS

- The teenagers were inspired by a viral video when a man woke up his friend
- The video shows the man starting a chainsaw and lunging it at his friend's throat
- A German teenager was injured after one friend decided to recreate the video

By ISOBEL FRODSHAM FOR MAILONLINE PUBLISHED: 04:11 EST, 28 December 2016 | UPDATED: 05:50 EST, 29 December 2016

15-year-old Washington schoolboy lit a firework he was holding in his hand

BY CRAIG THOMPSON 19:00, 23 OCT 2014

NEWS

INKS



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WEATHER -O- 56



Why do they do that?



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10 Leading Causes of Death by Age Group, United States – 2014

| | Age Groups | | | | | | | | | | |
|------|---|---|--|---|--|-----------------------------------|-----------------------------------|---|--|---|---|
| Rank | <1 | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ | Total |
| 1 | Congenital Anomalies 4,746 | Unintentional Injury 1,216 | Unintentional Injury 730 | Unintentional Injury 750 | Unintentional Injury 11,836 | Unintentional Injury 17,357 | Unintentional Injury 16,048 | Malignant Neoplasms 44,834 | Malignant Neoplasms 115,282 | Heart Disease 489,722 | Heart Disease 614,348 |
| 2 | Short Gestation 4,173 | Congenital Anomalies 399 | Malignant Neoplasms 436 | Suicide 425 | Suicide 5,079 | Suicide 6,569 | Malignant Neoplasms 11,267 | Heart Disease 34,791 | Heart Disease 74,473 | Malignant Neoplasms 413,885 | Malignant Neoplasms 591,699 |
| 3 | Maternal Pregnancy Comp. 1,574 | Homicide 364 | Congenital Anomalies 192 | Malignant Neoplasms 416 | Homicide 4,144 | Homicide 4,159 | Heart Disease 10,368 | Unintentional Injury 20,610 | Unintentional Injury 18,030 | Chronic Low. Respiratory Disease 124,693 | Chronic Low. Respiratory Disease 147,101 |
| 4 | SIDS 1,545 | Malignant Neoplasms 321 | Homicide 123 | Congenital Anomalies 156 | Malignant Neoplasms 1,569 | Malignant Neoplasms 3,624 | Suicide 6,706 | Suicide 8,767 | Chronic Low. Respiratory Disease 16,492 | Cerebro- vascular 113,308 | Unintentional Injury 136,053 |
| 5 | Unintentional Injury 1,161 | Heart Disease 149 | Heart Disease 69 | Homicide 156 | Heart Disease 953 | Heart Disease 3,341 | Homicide 2,588 | Liver Disease 8,627 | Diabetes Mellitus 13,342 | Alzheimer's Disease 92,604 | Cerebro- vascular 133,103 |
| 6 | Placenta Cord. Membranes 965 | Influenza & Pneumonia 109 | Chronic Low. Respiratory Disease 68 | Heart Disease 122 | Congenital Anomalies 377 | Liver Disease 725 | Liver Disease 2,582 | Diabetes Mellitus 6,062 | Liver Disease 12,792 | Diabetes Mellitus 54,161 | Alzheimer's Disease 93,541 |
| 7 | Bacterial Sepsis 544 | Chronic Low Respiratory Disease 53 | Influenza & Pneumonia 57 | Chronic Low Respiratory Disease 71 | Influenza & Pneumonia 199 | Diabetes Mellitus 709 | Diabetes Mellitus 1,999 | Cerebro- vascular 5,349 | Cerebro- vascular 11,727 | Unintentional Injury 48,295 | Diabetes Mellitus 76,488 |
| 8 | Respiratory Distress 460 | Septicemia 53 | Cerebro- vascular 45 | Cerebro- vascular 43 | Diabetes Mellitus 181 | HIV 583 | Cerebro- vascular 1,745 | Chronic Low. Respiratory Disease 4,402 | Suicide 7,527 | Influenza & Pneumonia 44,836 | Influenza & Pneumonia 55,227 |
| 9 | Circulatory System Disease 444 | Benign Neoplasms 38 | Benign Neoplasms 36 | Influenza & Pneumonia 41 | Chronic Low Respiratory Disease 178 | Cerebro- vascular 579 | HIV 1,174 | Influenza & Pneumonia 2,731 | Septicemia 5,709 | Nephritis 39,957 | Nephritis 48,146 |
| 10 | Neonatal Hemorrhage 441 | Perinatal Period 38 | Septicemia 33 | Benign Neoplasms 38 | Cerebro- vascular 177 | Influenza & Pneumonia 549 | Influenza & Pneumonia 1,125 | Septicemia 2,514 | Influenza & Pneumonia 5,390 | Septicemia 29,124 | Suicide 42,773 |





Teenagers

- 1904-Psychologist Granville Stanley recognizes adolescence as a unique developmental state.
- 1940's "teenager" first used, post WW2—cultural phenomenon: James Dean, teenyboppers,etc.



A New Understanding

- Brain maturation continues until ~midtwenties
- The adolescent brain is a "work in progress"

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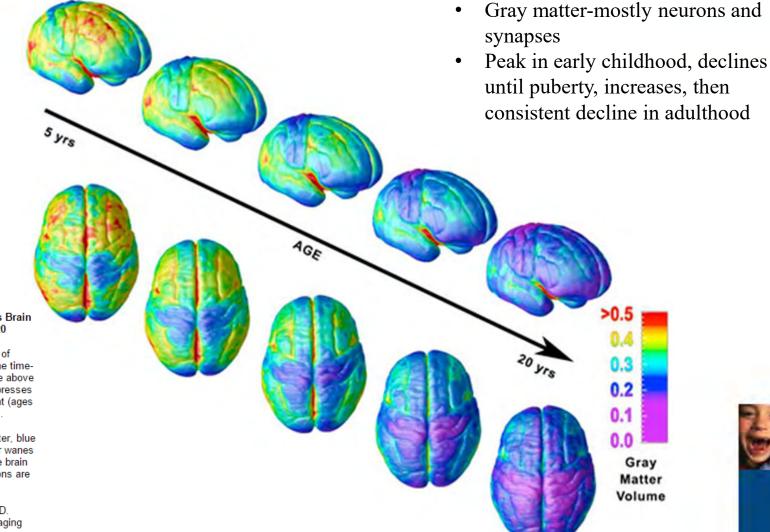
- Synaptic plasticity—can learn faster, absorb more information
- Adolescents are more susceptible to external stimuli or insults, which offers advantages but also vulnerabilities



MRI studies

Washington

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NC NathGard

Constructed from MRI scans of healthy children and teens, the timelapse "movie", from which the above images were extracted, compresses 15 years of brain development (ages 5–20) into just a few seconds.

Red indicates more gray matter, blue less gray matter. Gray matter wanes in a back-to-front wave as the brain matures and neural connections are pruned.

Source: Paul Thompson, Ph.D. UCLA Laboratory of Neuroimaging

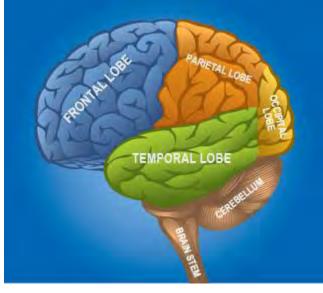
Adolescent Brain Development

- Brain develops and matures from back to front. Connections continue to be made until mid-20's
- Frontal lobe, prefrontal cortex last to develop
 - Executive function

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Executive Function

- Judgment
- Insight
- Planning
- Impulse control
- Self-awareness
- Ability to assess dangers and risk
- Limited understanding of consequences, ability to make mature decisions





- Limbic system also later to develop
 - Hypothalamus, hippocampus, amygdala
 - Complex system of nerves and networks in the brain, instinct and mood
 - Reward seeking
 - Memories and emotions
 - Decision making can be overly influenced by emotions

Limbic System online sooner than Frontal Cortex (Accelerator before brakes!)





executive functioning workbook for teens



* plan and organize

* learn to stay focused

* finish tasks and reach goals

Train Your Brain for Success

A Teenager's Guide to Executive Functions

Randy Kulman, Ph.D.

This book will help you:

- get organized
- improve your focus and attention
- manage your time
- think before you act
- remember important information
- understand how your brain works

Illustrated by Peter J. Welleman

The "Executive Skills" Program for Helping Teens Reach Their Potential

Over 50,000 in Print!

SMART DUES CATTERED TEENS

Boost Any Teen's Ability to:

| Resolve conflict | Get organized |
|--------------------|------------------------------------|
| Assess risks | Resist peer pressure |
| Control emotions | Follow through |
| Work Independently | Manage a schedule |
| Pay attention | / Plan ahead |



Richard Guare, PhD, Peg Dawson, EdD, and Colin Guare



• Dopamine—feelings of pleasure

ildre

- The "gotta have it" hormone—addictive behaviors
- MRI studies suggest teens need more excitement and stimulation to receive the same level of pleasure as an adult.





Welcome to being a parent of a teenager. Prepare for a large amount of eye rolling, emotional outbursts, and thoughts of running away. And that's just the parents.

FACEBOOK.COM/MOTHERHOOD.ORG



Washington ACC University in St. Louis School of Medicine

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Adolescent Development

The way they are acting is...

NORMAL

(Despite how completely abnormal it seems)



Adolescent Development Intellectual/Cognition

Early Adolescence (10-14 years)

- Very concrete—"here and now"
- Cause-effect relationship underdeveloped

Middle Adolescence (15-17 years)

- Growth in abstract thought, however reverts to concrete thought when stressed
- Cause-effect relationships better understood
- Very self-absorbed

Late Adolescence (18-21 years)

- Abstract thought established
- Future oriented; able to understand, plan and pursue long-term goals
- Philosophical and idealistic

Public.health.oregon.gov/HealthyPeopleFamilies/Youth/AdolescentGrowthDevelopment/Documents/adoldevstages.pdf



Adolescent Development Autonomy

Early Adolescence (10-14 years)

- · Challenges authority, family; anti-parent
- Loneliness
- Wide mood swings
- Things of childhood are rejected
- Argumentative and disobedient

Middle Adolescence (15-17 years)

 Conflict with family predominates due to ambivalence about emerging independence

Late Adolescence (18-21 years)

• Emancipation-adult lifestyle





Adolescent Development Body Image

Early Adolescence (10-14 years)

- Preoccupation with physical changes and critical of appearance
- Peers used as a standard for normal appearance
- Anxiety over secondary sexual characteristic changes

Middle Adolescence (15-17 years)

 Less concern about physical changes but increased interest in personal attractiveness

Late Adolescence (18-21 years)

Usually comfortable with body image





Adolescent Development Peer Group

Early Adolescence (10-14 years)

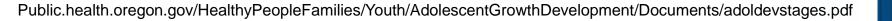
- Serves a developmental purpose
- Intense friendships with same sex
- Contact with opposite sex in groups

Middle Adolescence (15-17 years)

- Strong peer allegiances, fad behaviors
- Sexual drives emerge and teens begin to explore ability to date and attract a partner

Late Adolescence (18-21 years)

- Decisions/values less influenced by peers
- Relates to individuals more than to peer group
- Selection of partner based on individual preference







Adolescent Development Identity Development

Early Adolescence (10-14 years)

- "Am I normal?"
- Daydreaming
- Begin to develop own value system
- Desire for privacy
- Magnify own problems: "no one understands"

Middle Adolescence (15-17 years)

Experimentation, risk-taking behavior

Late Adolescence (18-21 years)

- Relate to family as an adult
- Realizations of own limitations and mortality
- More capable of intimate, complex relationships



Risk Factors: Why do teens seek risk?

- Individual
 - Low self-esteem
 - Negative peer groups
 - Low school engagement or academic aspirations
- Familial
 - Poor parent-child communication
 - Low parental monitoring
 - Lack of parental support





High Risk Behaviors in Adolescence

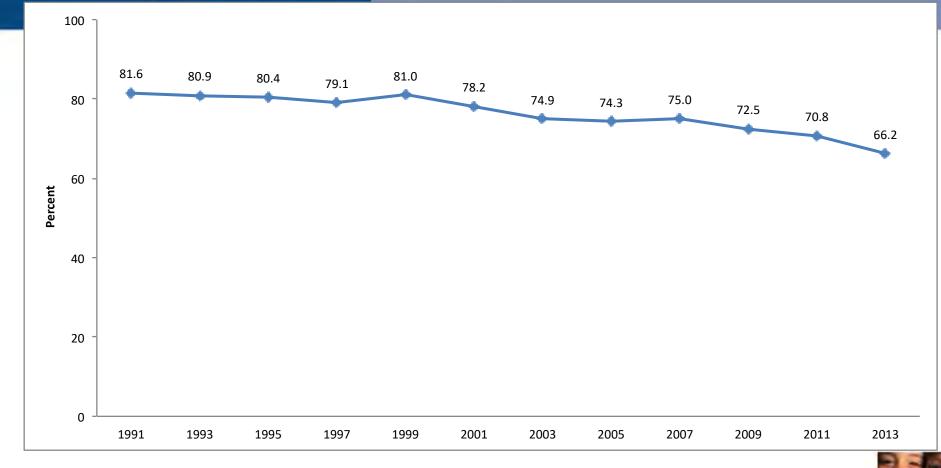
- Substance Use
- High-risk sexual behaviors
- Driving-related risks
- Accidental Injury
- Self-Injury, Suicide
- Violence



Percentage of High School Students Who Ever Had at Least One Drink of Alcohol,* 1991-2013[†]



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*On at least 1 day during their life.

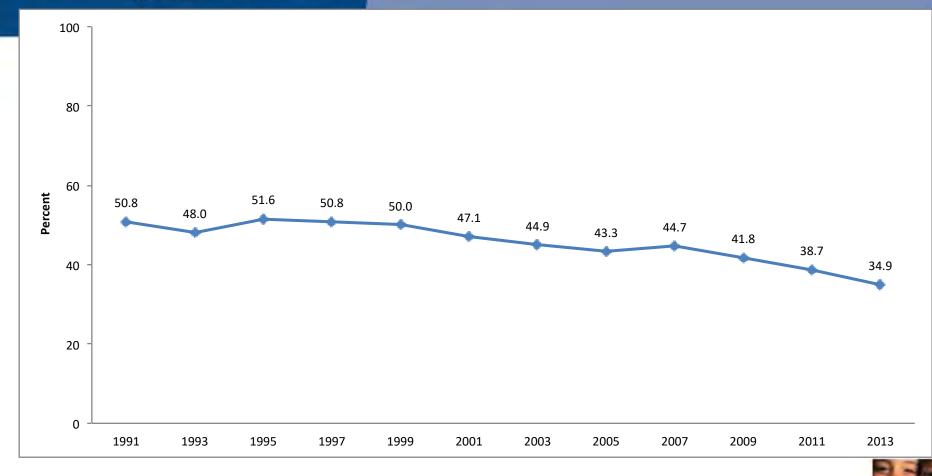
[†]Decreased 1991-2013, no change 1991-1999, decreased 1999-2013 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade (p < 0.05). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

National Youth Risk Behavior Surveys, 1991-2013

Percentage of High School Students Who Currently Drank Alcohol,* 1991-2013[†]

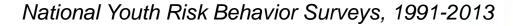


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*At least one drink of alcohol on at least 1 day during the 30 days before the survey.

[†]Decreased 1991-2013, no change 1991-1999, decreased 1999-2013 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade (p < 0.05). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]





- Adolescent brain responds to alcohol differently than the adult brain
- Adolescents are more sensitive than adults to alcohol's memory-impairing effects
- Alcohol exposure (esp binge drinking) during adolescence affects brain function during adulthood

(National Institute on Alcohol Abuse and Alcoholism)

Alcohol, Drugs, & Trauma

- For many adolescents (45-66%), substance use disorders precede the onset of trauma exposure.
- There is a direct link between alcohol use and engaging in risky behaviors in which adolescents may get hurt.



National Child Traumatic Stress Network, 2008

Alcohol, Drugs, & Trauma

 Teens with substance abuse disorders are significantly more likely than their non-substance abusing peers to experience traumas that result from risky behaviors.



National Child Traumatic Stress Network, 2008

Case Study #1



Washington

University in St.Louis

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RE Health Care

- 15 yo male
- Found outside airport, unk length of time.
- Feels "cold to touch"
- Bruising to back with pain



Case Study #1



Childre

Washington

University in St. Louis School of Medicine

- Witnessed jump/fall off Metro platform (approx. 30 feet)
- Per EMS, pt unresponsive, then awake, "slurring words." Told police he drank approx 20 beers earlier.





- Scene EMS
 - IVs placed
 - Given IV fluids
 - C-Collar
 - Backboard





- Arrives to SLCH at 0639 via EMS
- Initial vitals:

P 118, R 34, BP 94/38, SPO2 95% on NRB
 Pain-10/10, GCS: 14 (4/4/6), Temp: 35.7





- Primary & Secondary Assessment:
 - Decreased breath sounds on the right.
 Right chest wall tenderness
 - Skin cool, mottled
 - Pelvis tender to palpation
 - Abrasions and contusions noted to left arm and back





- Patient warmed
- Chest x-ray done
 - Right pneumothorax
 - Chest tube placed at 0654, close to 600ml of bloody output
 - 0655-more fluids and packed red blood cells rapidly infused





- Pt sedated, pain control
- 0710-To CT
- Parents arrive, in CT, updated by ED attending
- BP dropping while in CT
- 0730-MTP initiated by ED attending
- 0750 to PICU from CT





- Right lung hemo-pneumothorax
- Right lung contusion
- Multiple right-sided rib fractures (ribs 1-12)
- Left clavicle fracture
- Pelvic fractures
- Grade 2 Liver laceration
- Right elbow fracture
- T 6-8 transverse process fractures





- PICU x2 days
- Antibiotics, pain control, bacitracin to abrasions, ortho, neurosurgery, pain service consults, OR for elbow fx.
- Floor x 11 days
- Psychology eval and follow up





- Family hx of addiction to narcotics
- Pt hx of use as well—vicodin, ecstasy, marijuana, had stopped approx 2 months before injury





- ETOH-98 mg/dl (nml 0-10 mg/dl)
- Pt hx of experimenting with drugs and alcohol, parents had been drug testing him. He reports a desire to stop using drugs.
- Hx of ER for alcohol poisoning





- Recent positive changes
- Had taken metrolink that night because he knew he shouldn't drive with someone who had been drinking
- SW provided intervention and resources









- Brief
- Intervention and
- Referral to
- Treatment



ACS-COT-Resources for Optimal Care of the Injured Patient-2006

 "Trauma centers can use the teachable moment generated by the injury to implement an effective prevention strategy...it is vital that trauma centers have a mechanism to identify patients who are problem drinkers. Such mechanisms are essential in Level I and Level II trauma centers..."

Screening age 12 and above?

• Average age of initiating drinking:

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1965: 17 ½ years2003: 14 years2015: 13 years

- SAMHSA study 2011
 - 10.2 % of patients admitted for substance abuse treatment first contact with substance use at age 11 or younger. 29.7% were age 12-14 (primary substance marijuana for younger ages, 15-17 first substance was alcohol)
- The likelihood of a child becoming alcohol dependent, being in a MVC due to alcohol consumption, and being in a physical altercation after drinking all increase in children who begin drinking before 15 years old.



- Riding in a CAR with someone under the influence
- Use drugs or alcohol to RELAX
- Use drugs or alcohol ALONE

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- FORGETS things they did while using drugs or alcohol
- Have FRIENDS told you that you should cut back on drinking or drug use
- Gotten into TROUBLE while using alcohol or drugs

Two Yes answers = Positive CRAFFT





- Research project on inpatient surgical unit-transitioning ownership of CRAFFT screening to bedside nurse to increase number of patients receiving the screening.
- Requirement is only injured patients, but decision made to screen all.





 In 2018, the CRAFFT screening will transition to ALL patients age 12 and older regardless of reason for admission or floor of admission



| Childre is | Washington University in St.Louis School of Medicine |
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| Pub Med.gov | PubMed | • | |
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| US National Library of Medicine National Institutes of Health | | Advanced | |

Format: Abstract -

Send to -

Subst Abus. 2017 Jul-Sep;38(3):257-260. doi: 10.1080/08897077.2016.1275926. Epub 2016 Dec 27.

Screening and brief intervention in high schools: School nurses' practices and attitudes in Massachusetts.

Lunstead J¹, Weitzman ER^{2,3}, Kaye D¹, Levy S^{1,2}.

Author information

Abstract

BACKGROUND: Screening, brief intervention, and referral to treatment (SBIRT) is recommended as a strategy to prevent or reduce adolescent substance use. Offering SBIRT in schools may provide an opportunity to reach adolescents not accessing primary care. The

- June 2017
- 77% in favor of universal alcohol screening in schools
- None were screening on a regular basis
- 64% screened when they suspected alcohol use—only 17.9% used a validated screening tool



| Pub Med.gov | PubMed | • | | |
|--|-------------|-----|--|-----------|
| US National Library of Medicine National Institutes of Health | | | Advanced | |
| Format: Abstract - | | | | Send to - |
| NASN Sch Nurse. 2014 Nov;29(6 | i):310-4. | | | |
| Substance abuse p | prevention: | the | role of the school nurse across the continuum of care. | |
| Patestos C, Patterson K, Fitzsi | imons V. | | | |
| Abstract | | | | |

As a health care provider, health educator, and school/family/community liaison, the school nurse is in a unique position to act as a change



NASN Radio- National Association of School Nurses BAM RADIO NETWORK - K-12



Stats

Reviews

List of Episodes / Teaching Alcohol Responsibility to Teens

Tweet

Like 0

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Teaching Alcohol Responsibility to Teens

Underage drinking at the elementary, middle-school and high school levels is a concern for parents and educators. In this segment we discuss the latest statistics and research. Finally, we point to educational resources created specifically for school nurses and school staff. Follow: @schoolnurses @bamradionetwork Shirley Schwartz has been Director of Nursing Education at NASN for the last 11 years. She has extensive experience in children's health and school health. Ralph Blackman is President and CEO of the Foundation for Advancing Alcohol Responsibility. The Foundation has transformed countless lives through programs that contributed to significant reductions in drunk driving and underage drinking. Funded for more than 23 years by the nationâls leading distillers, they bring individuals, families and communities together to guide a lifetime of conversations around alcohol responsibility.

Listen on Android

Listen on iPhone

12:40 4-44

Popout C

Download



- <u>Motor Vehicle Crashes</u> are the leading cause of death among American teens.
- The risk of <u>Motor Vehicle Crashes</u> is higher among 16-19 year olds than among any other age group.



Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. (2013). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer).



Leading Causes of Teen Crashes

- Driver inexperience
- Driving with teen passengers
- Nighttime driving
- Not using seatbelts

Distracted driving

- Drowsy driving
- Reckless driving
- Impaired driving





- Distracted Driving
 - Texting while driving
 - Snapchatting while driving
 - Internet use while driving







Teen posted Snapchat video of him smoking drugs, then killed 2 in York County wreck



BY ANDREW DYS adys@heraldonline.com OCTOBER 17. 2017 3:33 PM

> US News

Teen Driver Accused of Using Snapchat Seconds Before Killing Bicyclist

By Epoch Newsroom October 20, 2017 10:24 am Last Updated: October 20, 2017 11:16 am







Inattention Comparison at 60mph

| Time | Total Feet | Basketball courts | Soccer Fields | Football Fields |
|---------|---------------|----------------------|------------------|--------------------|
| 2 sec. | 176 | 1.9 | 0.59 | 0.49 |
| 6 sec. | 528 | 5.6 | 1.76 | 1.5 |
| 15 sec. | 1,320 | 14 | 4.4 | 3.7 |



http://www.alexandrianews.org/2016/02/doubly-dangerous-snapchatting-and-taking-driving-selfies-not-specifically-banned-in-most-distracted-driving-bills-mulled/







RDH FOMO LOL









Fear of Missing Out



TEENS' "FEAR OF MISSING OUT" (FoMO) IS PROVING TO BE DANGEROUS.

TEENS' "ALWAYS ON" LIFESTYLE MAY LEAD TO DROWSY AND DISTRACTED DRIVING

TOP REASONS TEENS ARE FALLING ASLEEP BEHIND THE WHEEL

LACK OF SLEEP HURTING TEENS

get less than 6 hours of sleep per night during the week

56%

asleep at the wheel

or nearly fallen

have fallen asleep

lack of sleep to looking at texts or app notifications



DROWSY DRIVING 100,000 crashes AND 1,550 fatalities occur annually as a result of driver fatigue*

TEENS CAN'T PUT THE PHONE DOWN



text MORE when alone in the car

text while driving to update their parents



of self-identified "safe drivers" still admit to using apps while driving

TOP APPS THAT DISTRACT TEENS

DISTRACTED DRIVING Nearly 3,000 fatal crashes annually are distracted drivers; 10% of those are teens*



For more information, visit www.libertymutual.com/teen driving

*Source: National Highway Traffic Safety Administration Data from 2014 Liberty Mutual Insurance and SADD (Students Against Destructive Decisions) survey of 1,622 teens and 1,000 parents across the country



AUTO | HOME | LIFE





What can we do?



■ TIME

Self-Driving Cars



Why You Shouldn't Be Allowed to Drive



Google's Autonomous Cars Will Now Be Considered 'Real' Drivers



Google to Ask Congress to Help Put Self-Driving Cars on the Road



What can we do?

- Prevention!!!!
- Parent/Caregiver involvement
- Repetition-talk about things over and over and over!
 - Frontal lobe-prospective memory





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NEVER TEXT AND DRIVE. PROTECT YOURSELF. PROTECT YOUR FAMILY.

Your family is important to our family! The Trauma Team at St. Louis Children's Hospital is spreading the word about the dangers of distracted driving. To help remind you to not text and drive, we're giving you two thumb bands with the message "It Can W8."

Protect yourself and your passengers:

- Wear your thumb bands as a reminder to NEVER text or make a call while driving.
- Turn your cell phone OFF when in a vehicle.
- · Put your cell phone in the trunk no temptation to respond to a text!

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HOSPITAL + ST. LOUIS

BIC HealthCare

DID YOU KNOW?

Each text takes a driver's eyes off the road for an average of 4.6 seconds, the equivalent of driving the length of a football field at 55mph-blindfolded.

+ C + B

Washington University in St. Louis

Physicians

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TRAUMA AWARENESS MONTH DISTRACTED DRIVING

During May, the Trauma Team will be spreading the word about Distracted Driving by encouraging our staff, patients and families to take the pledge to never text and drive. It Can W8 thumb bands can serve as a reminder about the dangers of distracted driving.

Get involved!

- Visit us in the cafeteria on May 5, 6 and 8 to learn more about distracted driving and pick up a thumb band.
- Look for our "roving carts" on the floors. We'll have more information along with chances for staff to register and win concert tickets, Cardinals tickets and more!

Join the fight to end texting and driving. It Can W8! Questions? Contact Trauma Services at 314.454.2082.



The General Surgery Team says, "It Can W8!"





Parent-Teen Driving Agreement







PARENT-TEEN DRIVING AGREEMENT

will drive carefully and captiously and will be courteous to other drivers, bicyclists, and pedestrians at all times.

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I PROMISE.

I promise that I will obey all the rules of the road.

- Always wear a seat belt and make all my passengers buckle up
- Obey all traffic lights, stop signs, other street signs, and road markings
- Stav within the speed limit and drive safely
- Never use the car to race or to try to impress others
- Never give rides to hitchhikers

I promise that I will make sure I can stay focused on driving.

- Never text while driving (writing, reading or sending messages)
- Never talk on the cell phone including handsfree devices or speakerphone while driving
- Drive with both hands on the wheel
- Never eat or drink while driving
- Drive only when I am alert and in emotional control
- Call my parents for a ride home if I am impaired in any way that interferes with my ability to drive safely. or if my driver is impaired in any way
- Never use headphones or earbuds to listen to music while I drive

I promise that I will respect laws about drugs and alcohol.

- Drive only when I am alcohol and drug free
- Never allow any alcohol or illegal drugs in the car
- Be a passenger only with drivers who are alcohol and drug free

I promise that I will be a responsible driver.

- Drive only when I have permission to use the car and I will not let anyone else drive the car unless I have permission
- Drive someone else's car only if I have parental permission
- Pay for all traffic citations or parking tickets
- Complete my family responsibilities and maintain good grades at school as listed here:

Contribute to the costs of gasoline, maintenance, and insurance as listed here: _____

RESTRICTIONS:

I agree to the following restrictions, but understand that these restrictions will be modified by my parents as I get more driving experience and demonstrate that I am a responsible driver.

- For the next months, I will not drive after pm.
- C For the next _____ months, I will not transport more than _____ teen passengers (unless I am supervised by a responsible adult).
- For the next _____ months, I won't adjust the stereo, electronic devices, or air conditioning/heater while the car is moving.
- For the next _____ months, I will not drive in bad weather.
- I understand that I am not permitted to drive to off limit. locations or on roads and highways as listed here:

Additional restrictions:

PENALTIES FOR AGREEMENT VIOLATIONS

- Drove while texting (composed, read or sent) message or email with phone). NO DRIVING FOR _____ MONTHS
- Drove while talking on the cell phone (including) handsfree or speakerphone). NO DRIVING FOR MONTHS
- Drove after drinking alcohol or using drugs. NO DRIVING FOR MONTHS
- Got ticket for speeding or moving violation. NO DRIVING FOR _____ MONTHS
- Drove after night driving curfew. NO DRIVING FOR WEEKS/MONTHS
- Drove too many passengers. NO DRIVING FOR _____ WEEKS/MONTHS
- Broke promise about seat belts (self and others). NO DRIVING FOR _____ WEEKS/MONTHS
- Drove on a road or to an area that is off limits. NO DRIVING FOR WEEKS/MONTHS

I agree to follow all the rules and restrictions in this agreement. I understand that my parents will impose penalties, including removal of my driving privileges, if I violate the agreement. I also understand that my parents will allow me greater driving privileges as I become more experienced and as I demonstrate that I am always a safe and responsible driver.



SIGNATURES

| river: | Date: | _ |
|--------|-------|---|
| | | |

| Parent | t promise: I | also | agree | to drive | safely | and t | to be | an | excell | ent | role | model. | |
|--------|--------------|------|-------|----------|--------|-------|-------|----|--------|-------|------|--------|--|
| Docord | los ouned | anh | | | | | | | De | the l | | | |

| and the Barnessite | | |
|-----------------------|---|-------|
| Parent (or guardian): | 1 | Date: |

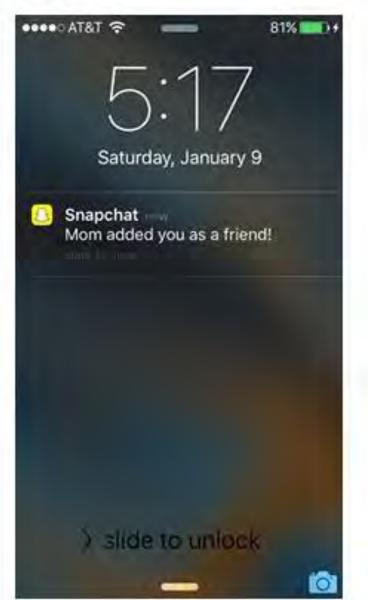
WWW.CDC.GOV/PARENTSARETHEKEY

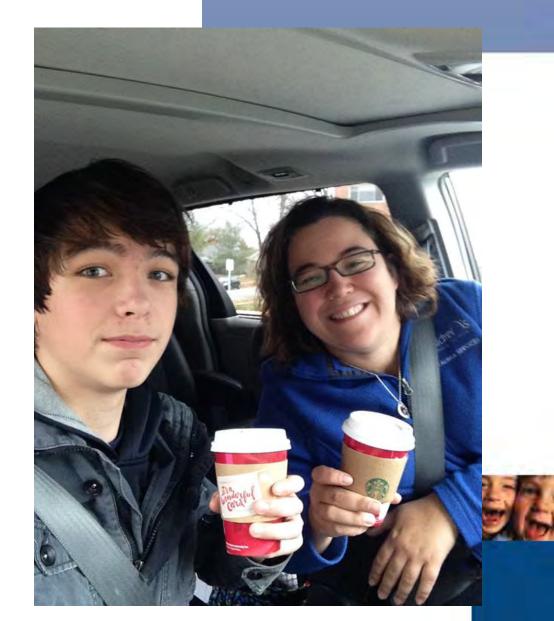


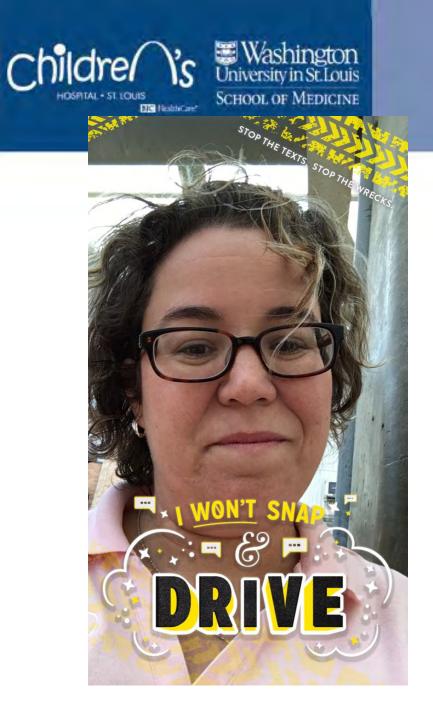




Oh joy















Case Study-High Speed MVC





Case Study-High Speed MVC

Loss of control, collision with a tree



4 Teens total in vehicle

Teen Passenger 1 (no seatbelt)

- Unresponsive at scene
- Transferred via helicopter
- Multiple face fractures (LeFort 2, orbit, bilateral mandible), left forearm fracture, ulna fracture, 10 cm occiput laceration, facial laceration, concussion



Teen Passenger 2 (no seatbelt)

- Flew from back seat to front
- Questionable LOC at scene
- Abrasions, puncture wounds to extremity





Teen Driver (no seatbelt)

- Ejected from vehicle
- Facial lacerations
- Tibia fx.
- D/C to home from ER





Teen Passenger 3 (SEATBELT) No injuries







Other teen fads leading to injury seen in the media







The Choking Game

The "Choking Game"



It's a story some medical experts say should be on the radar of every parent, teacher, counselor, and coach. Kids choking themselves to get a rush.

Kay Quinn, KSDK 11:32 p.m. CST November 12, 2015



The Choking Game

- "Gasp," "pass out game," "fainting game,"
 "Flatliner," "Airplaning," etc.
- Seeing a resurgence because of YouTube
- More kids doing it alone
- Can be high-achieving teens or pre-teens, way to experience a rush without getting in trouble

http://www.gaspinfo.com/en/choking.html



The Choking Game

- Warning Signs
 - Increased need for secrecy
 - Finding belts and ties laying out or tied to bed
 - Ligature marks on neck
 - Bloodshot eyes
 - Confusion, headaches, dizziness





University in St.Louis School of Medicine

The Choking Game

- Risk Factors
 - Substance misuse
 - Risky sexual behaviours
 - Poor mental health
 - Poor dietary behaviours
 - Engagement in risky sports
 - Previous experience of violence
 - Tendency towards impulsivity, thrill-seeking
 - Lower school achievement

http://adc.bmj.com/content/early/2015/06/25/archdischild-2015-308187.full.pdf+html







 Pouring a flammable liquid onto self, then igniting. Often done in shower.

Washington

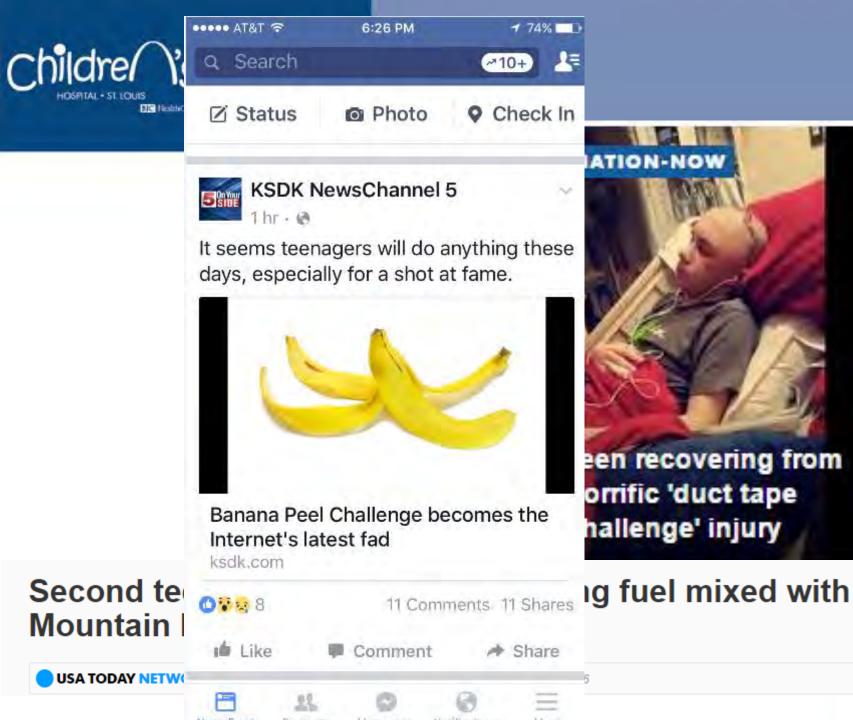


http://www.wkyt.com/home/headlines/Le xington-teen-burns-himself-during-prank-268649152.html

When we asked the teenager what he thought would happen when he set himself on fire, he said, "I don't know, I wasn't thinking really."









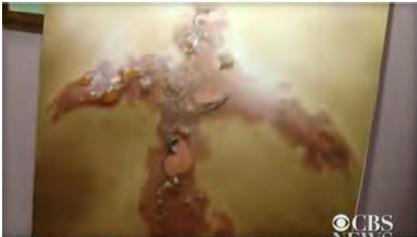


School of Medicine

Salt and Ice Challenge

By RYAN JASLOW / CBS NEWS / July 2, 2012, 6:05 PM

"Ice and salt challenge" leaves 12-year-old Pittsburgh boy with seconddegree burns



This screengrab shows second-degree burns suffered by a 12-year-old Pittsburgh boy after taking the "ice and salt challenge." CBS NEWS

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Department of Neurology at the Perelman School of Medicine, University of Pennsylvania. Former Professor Neurology at Harvard Medical School, Director of Translational Neuroscience and Director of Epilepsy Research at Boston Children's Hospital

NEW YORK TIMES BESTSELLER FRANCES E. JENSEN, MD with AMY ELLIS NUTT THE TEENAGE A NEUROSCIENTIST'S SURVIVAL GUIDE TO RAISING ADOLESCENTS

AND YOUNG ADULTS

"Frances Jensen, a neuroscientist and single mother of two boys derved into the emerging science of the adutescent brain (eng) came out with provocative new insights for parents, educators, public policymotors, and team themselves." — Monitorian 2007





"....take the lead, take control, and try to think for your teenage sons and daughters until their own brains are ready to take over the job."

-Dr. Frances E. Jensen

NEW YORK TIMES BESTSELLER

FRANCES E. JENSEN, MD

TEENAGE BRAIN

A NEUROSCIENTIST'S SURVIVAL

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Me with my teenagers (and my 9 year old)

