

ATVs



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From the headlines...



- Funeral services will be held this afternoon for 11yo Jones Chapel boy fatally injured in a four-wheeler accident near his home Saturday.
- The all terrain vehicle (ATV) he was driving left the road and crashed around 4:30 p.m.
Chad, who was reportedly conscious briefly following the accident, was flown by helicopter to Children's Hospital in Birmingham where he was pronounced dead at 7:10 p.m..

Disclaimer

- No financial obligations
- No HIPAA rules were harmed in the making of this slide presentation

Overview

- WHAT are they?
- HOW are they used?
- WHY do we Care?
 - National data
 - Alabama data
 - TCH data
- WHERE do we go next
 - Outreach
 - Pediatrician study
 - Community efforts
- Education, Legislation and Partnerships

ATV

- All Terrain Vehicles
 - 4 Wheelers
 - 3 Wheelers
 - Quad Cycles
-
- Weigh 500 lbs
 - Run up to 75 MPH
 - CPSC : off road, motorized vehicle with 3 or 4 low pressure tires, a straddle seat and handlebars





History

- First made in 1970s
- CPSC started collecting data in early 80s
- April 1988: consent decree
 - 5 ATV distributors
 - Halt production of 3 wheelers
 - Offer safety training
 - Recommend adult size for >16 yo
 - Expired in 1998

Voluntary ATV Action Plan

- No marketing or selling of adult size ATV to children < 16 yo
- Ban manufacture and sale of 3 wheelers
- Promote training
- Conduct safety education campaign
- Manufacturers can withdraw with notice

How they are used:

- Farming
- Hunting



Who rides / owns ATVs?

- Median age is 37 (1/3 between the age of 24 -38)
- Median household income \$52,800
- 58% married
- 86% are male
- 23% have professional/managerial occupations
- 75% ride as a family recreation activity
- Majority are white

From the headlines....

- Already with two years of driving experience under his belt, 3-year-old Sammy lost control of his small all-terrain vehicle seven weeks ago and was flung head-on into a tree.

- Sammy's skull fractured, his brain bled and he appeared dead when his father ran to his side.
- Sammy's accident occurred on a Saturday afternoon. Sammy, who is almost 4, had been driving his 90-cc ATV around the house since he was 2, his father said.
- The child was driving the ATV about 15 mph across the yard when he lost control, Parker said. "I don't know what happened."



- Use of 4-wheel ATVs has climbed from less than 400,000 to more than 6.9 million over the past two decades.

Why we care:

- National data-overall (since 2001 a 37% increase in serious injuries)

YEAR	DEATHS	ED INJURIES
1996	248	53,600
2006	750	146,600

National Data - < 16 years old

- Since 2001 a 17% increase in serious injuries

Year	Deaths	ED visits
1996	87	20,200
2006	139	40,000

Cost in 2003

- In 2003, the economic cost associated with ATV-related deaths in children, which does not include the costs associated with ATV-related injuries, totaled over \$720 million.
- Estimated National injury cost for < 14 yo = \$3.3 billion
- Local examples
 - 14 yo with facial fractures= \$42500
 - 13 yo superinfected wounds= \$114,971
 - Average charge for 43 ATV injuries=\$22759



Boy dies in *ATV* accident

Press-Register - Mobile, AL, USA

- A 7-year-old boy was killed Saturday when he was thrown from the all-terrain vehicle his father was driving on a rural road .
- The boy's father was driving the *ATV* on a dirt road when it flipped over, Bumpers said.

Mom, child injured

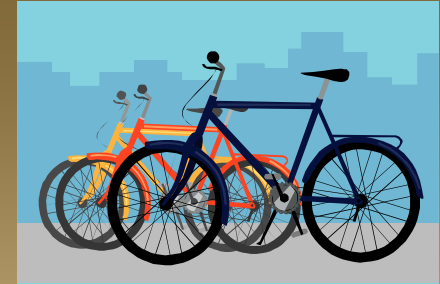
- Lacie, 24, and her 18-month-old son are recovering in a Pensacola, Fla., hospital following a four-wheeler accident
- The baby sustained multiple skull fractures and at least one vertebra fracture in the accident.

How Injuries Occur

- Rollovers
- Collisions with stationary objects
- Falls from the vehicles.

Who is at Risk?

- Children under the age of 16 riding ATVs are four times more likely than ATV operators over 16 to experience an injury requiring emergency room treatment.



- ATV-related injuries are six times more likely to result in hospitalization
- 12 times more likely to result in death than bicycle-related injuries.
- Head injuries account for a majority of ATV-related deaths, which usually are instantaneous.
- Serious nonfatal injuries include head and spinal trauma, abdominal injuries and multiple trauma.

Alabama Child Death Review Team

- From 2000 to beginning of 2007– 38 child deaths (ages 2 to 17)
- Majority are 12 and 13 years old
- One each of 2, 3, 4 and 5 year olds

Trauma alerts

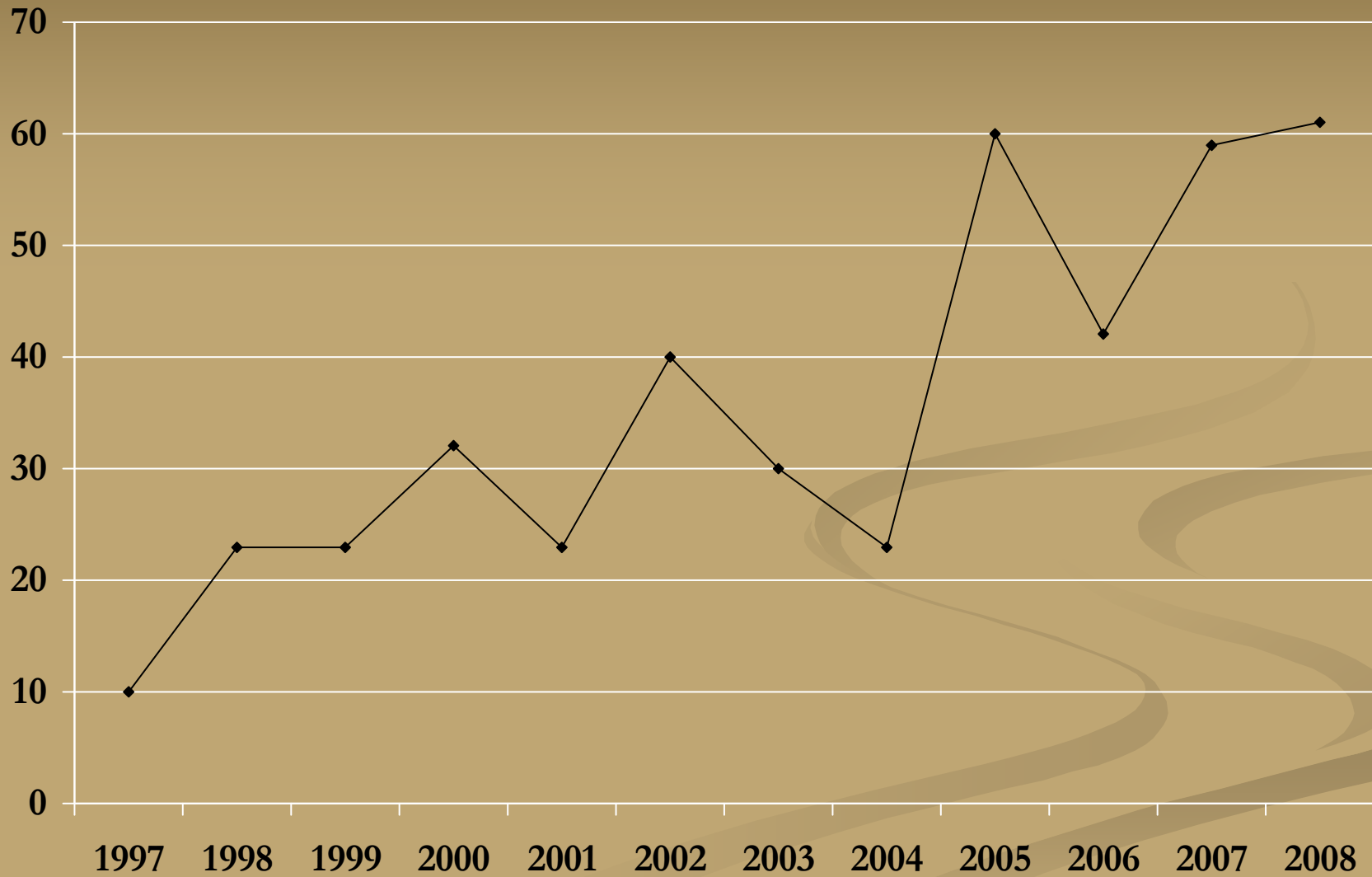
- EMS or outside hospital
 - Mechanism
 - Injuries
- Arrive here:
 - Quick assessment to upgrade

TCH facts

- In 2007:
- 60 trauma alerts for *ATV* related injuries
- 38 more *ATV* injured patients seen in ED

■ video

ATV trauma alerts at Childrens Hospital



TCH 2007-2008

august to august

- N=113
- 82% Caucasian; 70 % male
- mean age 11 years (14 months to 18 years)
- 47 patients met ED Trauma Alert criteria (3 deaths).
- Of 64 admissions, 46 required intensive or step down unit level of care.
- 57 drivers, 34 passengers, 2 bystanders, 21 unknown.
- Mean length of stay (LOS) was 1.8 days (3.2 days for trauma alerts).

AAP on ATV use

- Policy statement since 1987
- No use by children younger than age 16
 - Lack physical size and strength
 - Lack coordination and balance, slower reaction times
 - Lack maturity and judgment and are more likely to ride in dangerous conditions

AAP policy on ATV Use

- No use by children less than 16
- No passenger riding
- All riders should wear helmets, eye protection, and reflective clothing
- No street use
- No alcohol
- **Pediatricians should educate families regarding the dangers of ATV use**

Committee on Injury and Poison Prevention. "All-Terrain Vehicle Injury Prevention: Two-, Three- and Four-Wheeled Unlicensed Motor Vehicles." *Pediatrics* 2000;105;1352-1354

Alabama Pediatricians

- Purpose:
 - To determine if pediatricians in our state are following the AAP recommendations and educating patients about ATV hazards and safety
- Methods:
 - A survey (Survey Monkey®) was sent to all Alabama AAP members
 - 3 emails
 - AL-AAP newsletter
 - Only responses from general pediatricians were used



Results

- 104 responses out of the 353 general pediatricians in the state (29.5%)
 - 58.7% (61/104) pediatricians were aware of the AAP policy
 - Of these, only 36.1% (22/61) correctly identified the age limit recommendations cited in the policy

The AAP recommends no one under age ____
ride an ATV:

	%	n=104
6 years	1.0	1
8 years	3.8	4
10 years	4.8	5
14 years	24.0	25
16 years	31.7	33
Not sure	34.6	36

Results

- Only 48.5% (49/101) said they routinely give anticipatory guidance regarding ATV use
- 35 said they routinely give age limit recommendations as part of anticipatory guidance
 - 62.9% (22/35) gave recommendations younger than cited in the AAP policy

The following are part of AL law regarding
ATV use (check all that apply):

	%	n=104
Must be a certain age to use	30.3	30
Cannot ride on public roads	55.6	55
Must wear a helmet	25.3	25
Must have a license to drive	3.0	3
There is a limit to the number of passengers allowed	13.1	13
There are no laws	39.4	39

Conclusions

- General pediatricians in Alabama are not familiar with the current AAP policy and do not routinely follow its guidelines
 - Time constraints
 - Unaware of degree of problem
 - Injuries go to ERs rather than office
 - Thought of as for recreation rather than as vehicles
 - No education regarding hazards



■ 70 cc

sizes



90 cc



full size

- ATV safety Institute recommends
 - 6 and older engine up to 70 cc size
 - 12 and older engine up to 90 cc size
 - 16 and older 90 ccs and up

Dealers

- Age 6-11 years: 50cc automatic (\$1500)
- Age 12-16 years: 90cc semi-automatic (\$3000)
- Age >16 years: >90cc semi-automatic (\$6-10K)
- Not allowed to sell for children under age 6
- Yamaha is best-selling brand

Dealers

- All have warning labels re: helmets, road-riding, passengers, alcohol (adult models)
- They don't routinely recommend training classes (and didn't know where they are offered)
- They recommend safety gear:
 - Helmets \$75-600
 - Boots \$75-150



WARNING

Improper use of ATVs can cause **SEVERE INJURY OR DEATH.**



**ALWAYS USE
AN APPROVED
HELMET AND
PROTECTIVE
GEAR**



**NEVER USE
ON PUBLIC
ROADS**



**NEVER CARRY
PASSENGERS**



**NEVER USE
WITH DRUGS
OR ALCOHOL**

NEVER operate:

- without proper training or instruction
- at speeds too fast for your skills or the conditions
- on public roads - a collision can occur with another vehicle
- with a passenger - passengers affect balance and steering and increase risk of losing control

ALWAYS:

- use proper riding techniques to avoid vehicle overturns on hills and rough terrain and in turns.
- avoid paved surfaces - pavement may seriously affect handling and control

**LOCATE AND READ OWNER'S MANUAL.
FOLLOW ALL INSTRUCTIONS AND WARNINGS.**



PROPER RIDING GEAR

- ▶ **Approved helmet** - Helmets should have stickers on the inside or outside confirming compliance with the standards from the U.S. Department of Transportation (DOT) or Snell
- ▶ **Eye protection** - Protective goggles or face shield
- ▶ **Gloves** - Off-road style is best
- ▶ **Long-sleeved shirt/jacket** - Off-road jersey; shoulder pads/chest protector are encouraged
- ▶ **Over-the-ankle boots** - Off-road style, over-the-ankle ATV boots offer the best protection

Where do we go from here?

- Education
 - Health care providers
 - Public
- Legislation

Education- Pediatricians

- Published our survey results in 2008 Spring Al-AAP Newsletter
- Educational posters mailed to all PMD offices, health departments, and school RNs
- Grand Rounds
- Abstract presented at 2007 Injury Free Coalition for Kids and 2008 AAP national conferences

This could be your next 4-wheeler.

Did you know?

ATV= All Terrain Vehicle / 4-Wheeler

- ATVs are more dangerous than bicycles
- 6 times more likely to result in hospitalization
- 12 times more likely to result in death

At Children's Hospital of Alabama, Trauma alerts due to ATVs have risen steadily:

- 17 in 1997
- 37 in 2002
- 59 in 2007

up 200%

The ATV Industry & The American Academy of Pediatrics recommends:

- drivers be at least 16 years old
- no passengers EVER on ATVs
- all riders of ATVs should wear helmets, eye protectors, and reflective clothing
- no street use
- no alcohol use



American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™



Helpful web sites:
www.atvsafety.org
<http://www.atv-youth.org/>



CHILDREN'S
HOSPITAL®

Education- Public

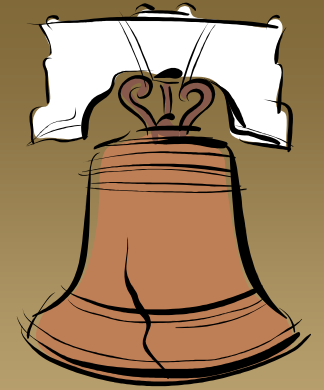
- Movie ad at Rave Movie Theaters in summer 2008
- Press Conference with
 - AL Department of Public Health
 - AL AAP
 - VOICES for Alabama Children
 - Injury Free Coalition for Kids
- Newspaper articles
- Radio interviews

Legislation



- Currently, 28 states have a minimum age requirement for operation of an *ATV*.
- Of these, only three states (Missouri, New Hampshire and Virginia) require *ATV* operators to be 16 or older.
- Alabama is one of only 3 states with no regulations

What about helmet laws?



- Living in a state with a helmet law, was associated with decreased risk factors for ATV injury such as young age and riding unhelmeted.
- However, despite regulations, many children suffered serious morbidity and mortality.
- Conclusion: children <16 years old should be prohibited from riding

Consumers union suggests

- States should
 - ban ATV use on paved roads
 - implement educational and training campaigns
 - create and enforce licensing requirements
 - require appropriate protective gear, including helmets, to operate ATVs.
- Congress needs to step up and give states the funds to do all this

CPSC at present

NPR (notice of proposed rulemaking)

- pre-purchase required training for first time
- Developed a tab on www.atvsafety.gov site for injury and death statistics
- Testing and evaluating 9 youth model ATVS (Army's Aberdeen Test Center)



Legal Considerations



- \$3.6 million given to parents of a 13 year old girl who died from *ATV* crash
- Parents of the 15 year old boy riding with her lost their case
- She was wearing helmet
- Owners testified in court they were aware of the *ATV* warning label.

Partnerships

- Injury Free and Safe Kids (Michele Nichols and Bill King)
- AAP (Dr. Holloway and Linda Lee)
- AAP injury prevention committee
 - Carden Johnston MD
- Media Dept : Adam Kelley, Kathy Bowers and Garland Stansel
- Geni Smith RN (trauma coordinator)
- Virginia Hawkins, Megan Beal and Jackie Freeman
- Paul Scalici MD
- Stefanie Lycans MSIII
- Andrea Dollar
- Jennifer Brown RN
- Derrill Wilson
- Julie Farmer RN and Marie Crew RN (SafeKids)
- Think First (Vicki Hill RN and Jay Wellons MD)
- Pediatric Emergency Medicine Division
- Metrock Foundation
- ADPH
- VOICES for Alabama Children
- CHECK Center

Stoney Lonesome

- The \$2 million 1,465-acre park, which is located near Bremen and is scheduled to open in December, will mainly feature trails for all-terrain (ATV) vehicles such as 4-wheelers, but will also have trails for bike and horseback riding.

“We’ll require everyone who comes into the park to register and require them to watch a safety video and go through the program there,” Sellers said.

Once inside the park, all ATV users will be required to wear safety helmets.



“Childhood recreation should not be life-threatening”



References

- ATV Safety Institute
 - ATVsafety.gov
- Injury Free Coalition for Kids
 - www.injuryfree.org
- Consumer Product Safety Commission
 - www.cpsc.org
- National Safety Council
 - www.nsc.org
- American Academy of Pediatrics
 - www.aap.gov