

Burn and Fire Prevention Newsletter

A Letter From the Chair

By Jimmy Parks, RN
Chairman of ABA Prevention Committee
Arkansas Children's Hospital Burn Center

From the view of the Chair, the most meaningful thing I've seen in the last three years has been the refinement of the collaborative partnership of the ABA's Burn Prevention Committee, the Federation of Burn Foundations, the International Association of Firefighters Burn Foundation and the Home Safety Council. This is what we have come to refer to informally as the "Burn Prevention Coalition." Leaders and members of these groups have demonstrated that relationships are more important than any other resource when it comes to productivity.

The "Prevention Track" of the ABA's annual meeting is comprised of educational opportunities throughout the course of the conference meant to help us think about how burns can be prevented and inspire us to take action. This year, look for information about using social media for prevention, addressing multicultural issues, balancing prevention and environmental concerns, and the line of duty risks that firefighters face.

We will also introduce a National Scald Prevention Campaign which I think will be emblematic of the good work that has come from our coalition. I thank Dr. Barillo and past Prevention Committee members for giving us a good foundation and reputation with which to work; the IAFFBF for putting an amazing amount of energy and resources toward an issue that is not even fire-related; the FBF for their generosity and expertise in creating and directing such a campaign; and to the Home Safety Council for all the help and heart that I think put us over the top in this effort. All of our partners have been essential and I'm proud of their selflessness.

It has been a privilege to watch the Prevention Track and the Scald Campaign come together. I am excited to be turning over the Chairmanship to Dan Dillard this year in Boston. No one has the combination of character, experience and drive that Dan does and I have no doubt that, under his leadership, the committee will do more for burn prevention than ever before.

Please look for us at the Prevention Booth and consider joining what I think is the most productive committee (and coalition) at the meeting.

Sincerely,
Jimmy Parks

March 2010

Volume 5



American Burn Association
Burn and Fire Prevention News-
letter

Newsletter Editors/Designers

Sue Vanek, BS, RN, MBA
Burn Program Coordinator
Parkland Regional Burn Center
Dallas, TX

Lisa Marie Jones, BS
Community Burn Educator/
Fire NET Program Coordinator
The Burn Center at Saint
Barnabas Livingston, NJ

For more information on the national scald prevention campaign and multicultural prevention issues, please attend this year's special workshops and forum, Tuesday March 9 from 1:00 p.m. until 4 p.m. "Burn Prevention Workshop"

Home Fire Sprinkler Systems

Preventing Burn Injuries and Death from House Fires

Position Statement by the American Burn Association and Phoenix Society for Burn Survivors

The American Burn Association and the Phoenix Society for Burn Survivors supports the installation of home fire sprinkler systems in new one- and two-family homes because fire sprinklers save lives, prevent injuries and protect property. We urge our members to become advocates for the adoption of the residential fire sprinkler building codes.

The Home Fire Problem

- 83% of U.S. civilian fire deaths and 79% of civilian fire injuries occurred in homes in 2008; yet fire sprinklers are rare in 1- and 2-family homes (NFPA).
- 1- and 2-family homes should be a high-priority target for increased sprinkler installation because they accounted for more than 56% of all US structure fires in 2008, and more than 72% of all residential fires. Those fires killed 2,365 civilians and caused 9,185 civilian injuries. (NFPA)
- Fires and burns are the 3rd-leading cause of accidental home injury death. For children ages 1-14, the largest number of home fatalities is due to fire and burns (HSC).
- An estimated 500,000 burn injuries receive medical treatment per year. 43% of admissions to burn centers were from burns in the home; 46% were from fire and flame; 31% were uninsured or underinsured. (ABA)
- First responders are also at grave risk. 62% of all firefighter deaths at structure fires in 2008 were at residential fires (all but one were in 1- and 2-family homes). (NFPA)

Home Fire Sprinklers Prevent Burn Injuries and Deaths

Home fire sprinklers save lives, prevent injuries, and protect property – nothing else is as effective. Smoke alarms are vital home fire protection because they warn people when there is smoke, but individuals must react properly and very quickly to the alarm to benefit from the added time to escape. Fire sprinklers provide passive protection – they respond to a fire in its early stages, putting water on the flames, and immediately giving occupants extra time to escape. The sprinklers' quick action prevents deadly smoke and heat from spreading and often extinguishes the fire before the fire department arrives.

Fire sprinklers are the ultimate fire protection for everyone. And they are particularly useful at protecting those individuals who may have difficulty escaping from a home fire unaided – infants and young children, older adults and people with disabilities – the highest-fire-risk members of our society.

Resources:

1. The Home Fire Sprinkler Coalition (HFSC) – a non-commercial, nonprofit 501(c)(3) public safety advocacy group: www.HomeFireSprinkler.org and www.SprinklerSmarts.org
2. The Fire Sprinkler Initiative – a project of the nonprofit National Fire Protection Association (NFPA): www.firesprinklerinitiative.org
3. Phoenix Society for Burn Survivors – survivor advocates: www.phoenix-society.org
4. Common Voices – an advocate's coalition: www.fireadvocates.org
5. The United States Fire Administration (USFA): www.usfa.dhs.gov
6. Fire Team USA: www.fireteamusa.com

The New Epidemic: Displays of Risky Fire Use in Social Media

By Karla Ahrns-Klas, BSN, RN, CCRP
University of Michigan Trauma Burn Center

Fire. For centuries upon centuries, man has exhibited decided power with and thereby taken great pride in the making of fire. Fire. With it, tribes provided warmth, nourishment, and protection to their people. Fire. Somewhere along the course of history and society's development, the purposes for using it drastically changed. Legitimate applications were replaced with risky and thrill-seeking activities. While these unsafe fire behaviors are not exclusively limited to the male gender, boys certainly do monopolize the marketshare. Fire and its use with gasoline, bottle bombs, starting fluid, body spray, Molotov cocktails, fuel-propulsion launchers, aerosol cans, etc....what is it that compels youth to dismiss all logical thought processes and scoff at self-preservation in the quest of igniting a bigger or more explosive fire? While it's easy to first respond, "What the \$%^# were you thinking?!" Or joke that stupidity provides us with job security, what is this injury prevention challenge really about?

Let's step back and ask ourselves, how have we prepared this group of young, immature, impressionable persons who can't independently determine reality from staged media illusions? We have shown them commercials, movies, and "reality" shows with irresponsible and inaccurate depictions of fire as exciting, harmless, thrilling, sexy, edgy, and safe.¹ Provided them with toys, gaming videos, packaging, and virtual game worlds that associate fire without injury consequences. These are the basis for what is an appropriate and normal use of fire?? Hasn't our society cultivated youth to do exactly what they are doing regarding risky fire use?

Add that "training" to the mix of adolescent boys developmentally primed to react to peer challenges to impress and flaunt. Fire. Previously it was only ideas and peer pressure generated by word-of-mouth in a small group of friends that made a young man do what he thought he had to do. But alas, the emergence of internet and social networking sky-rocketed (pun intended) things to a new level. Peer groups now extend to a world of thousands and millions, where youth are exposed to innumerable ideas for risky fire use. Fire. Start it with gasoline or another handy accelerant, a fun idea. Spray aerosol or body spray on yourself or a friend, ignite it, and see how fast you can put it out... better yet. Video-tape it and post it on any of the numerous social media on-line video sharing and/or networking sites...perfect! And hence a new epidemic in high-risk fire behavior has emerged.

While multi-media technology advances at a dizzying rate and provides our youth with even more venues to display their risky behaviors, our prevention efforts lag behind. There currently only exists one manuscript in the medical literature that explores the potential relationship of YouTube videos with injury in youth.² So what strategies do we burn and injury prevention experts employ to address this new "epidemic"? How do we rapidly change and adapt in response to new technologies? How can our safety messages historically stereo-typed as "boring" compete in this social media environment? How do we "reach" and change behavior in these youth? The ABA Prevention Committee encourages you to attend the Burn Prevention Workshop to discuss these challenges. In the interim, some thoughts to ponder:

- Prevention experts need to be educated and aware of the social media technology available to youth.
- Educators must assist youth in bridging their virtual and real worlds.
- Positive safety messages utilizing humor were found to be most effective in influencing young male drivers.³ Could this have applicability to our population?
- Should the injury prevention community collectively advocate for filtering of high-risk behavior on video-sharing websites and for more strongly moderated message boards?
- How do we provide targeted education to parents on social media so they have the skills and awareness to monitor their child's on-line searches, activities, and net-friends for high-risk fire behavior?

References

- Greenhalgh DG, Palmieri TL. The media glorifying burns: a hindrance to burn prevention. *J Burn Care Rehabil.* 2003;24(3):159-62.
- Linkletter M, Gordon K, Dooley J. The Choking Game and YouTube: A Dangerous Combination. *Clin Pediatric (Phila).* [Epub ahead of print; accessed on 1/27/2010]
- Lewis IM, Watson B, White KM, Tay R. Promoting public health messages: Should we move beyond fear-evoking appeals in road safety? *Qual Health Res* 2007;17(1):61-7

The Changing Face of Prevention in a Changing America

By Larry Sagan
Executive Director, FIRE 20/20

Like it or not, our country is demographically changing. According to the U.S. Census Bureau we'll become a minority-majority country by 2042. Others estimate this could be as soon as 2025. The Hispanic/Latino population is projected to triple, the Asian population is expected to grow by 2 ½ times and the African American population is expected to nearly double. The foreign born population is expected to grow from 12% today to 19% in 2050. Half the children under five years of age today are Hispanic, Asian or African American. Our elderly population is expected to double by 2030, and over 40% of those 65 and over report being disabled. Today, 20% of students in our public schools speak a language other than English at home.

The simple truth is fire and emergency services will have to change the way we conduct business. It's our problem not our customers. The question is: "Do we want to help to lead the change or react to the change?"

FIRE 20/20's 2006-2007 Fire Prevention and Safety Research study in Seattle, Austin, Milwaukee and Calgary engaged multicultural communities and firefighters in 92 focus groups. The research identified fire and life safety needs from both the communities' and the fire departments' perspective. For the purpose of the research, FIRE 20/20 identified multicultural as: a reflection of the people in our world today including age, race, ethnic background, gender, people with special needs, socio-economic status, sexual orientation, sexual identity, religion, and country of origin.

Findings showed four key issues that put both civilians and community members at greater risk: Language/communication challenges, lack of proactive non-emergency relationships, trust issues and knowledge gaps. To view video clips of interviews with members of different multicultural communities, view [www.fire2020.org/videos/Multicultural video for presentations.wmv](http://www.fire2020.org/videos/Multicultural%20video%20for%20presentations.wmv)

We learned from our customers that they are concerned about safety. They told us and taught us that showing respect is not "treating everyone the same," but rather reaching out to understand their cultures, their faiths, their lifestyles and their needs. The simple act of asking them what they think and valuing their opinions creates a whole new conversation and opportunity for fire prevention.

Immigrant groups offered to translate materials free of charge, to host community meetings, to invite the fire departments to participate at community festivals, to come in to the fire department to provide cultural competency education. They also taught us more efficient ways to expand the reach and effectiveness of fire prevention. Opportunities for two-way learning and partnerships were abundant:

- Second and third generation Hispanic/Latino community focus groups in Austin talked about candle fire problems with home alters. They brought forth creative solutions. They discovered that putting the candle in a bowl of water reduced fire risk. They explained that the best way for the fire department to promote this solution was through the faith community. It provided a new direction for promoting fire prevention and the community had ownership.
- The Muslim community suggested smoke alarm campaigns be promoted during the holy festival of Ramadan rather than when we change our clocks. They suggested that the message be delivered by the Imam (Islam faith leader) in the Mosque and be tied to the Koran's message of preservation of life.
- A homeless shelter focus group talked about the problems with both fire and life safety. They suggested that the fire department ask homeless people about their needs. A recommendation to teach homeless shelter residents CPR emerged.
- Milwaukee's Hmong community (indigenous people from the hill country of Laos) who had no previous connection with the fire department before a fire took the lives of two children, told the fire department they'd be honored to have a Hmong firefighter and would help to identify "the best of the best" for recruitment. They acknowledged that a Hmong firefighter could speak the language and work with the community in both prevention and suppression efforts. *(Continued bottom of page 5)*

Children's Hospital of Michigan Smoke Alarm Installation and Fire Safety Education Program

By Roberta L. Davis, BS
Children's Hospital of Michigan

Every 34 minutes someone in the United States dies from injuries sustained in a house fire. Fires kill more than 600 children ages 14 and under each year and injure 47,000 more. Hospital emergency departments (ED) treat 88,000 children ages 14 and under for burn-related injuries every year. In Michigan, 94 house fires took 119 lives in 2004. Of those houses, only 15, or 17%, had functioning alarms, while 79 or an astonishing 83% of homes in Michigan did not. The Detroit Fire Department (DFD) estimates that the figure for Detroit homes is even higher. Indeed, 27% of all fire-related deaths in Michigan occur in the City of Detroit.

In 2000, Children's Hospital of Michigan, a verified Level I Pediatric Trauma Center in Detroit, partnered with the DFD to initiate a Smoke Alarm Installation Program. Through our umbrella injury prevention program, Trauma Related Injury Prevention Program (TRIP), we developed a smoke alarm safety survey tool and smoke alarm installation program for to help families prevent injury from house fires. Installation and in-home education regarding alarm maintenance and escape plan development and practice is given to consenting families. Community volunteers as well as the ED director and nurses, trained by TRIP members and/or the smoke alarm coordinator, go out into the community to install alarms and educate families on how to survive a house fire. TRIP/Smoke Alarm staff members make six-month follow-up calls to 100% of the program homes and 10% of the program homes receive a physical in home visit to conduct a post-installation survey.

Since the smoke alarm installation program began in 2000, a total of 15,467 smoke alarms have been installed in 8,134 Detroit homes housing 13,999 adults and 16,608 children. Six-month follow-up data reveal that 90% of families have tested their smoke alarms since installation; 67% have developed escape plans; and 56% of those families have practiced their plans. These results represent a dramatic improvement in behavioral change from baseline results which showed 78% had tested their smoke alarms in the last 6 months, 23% had developed escape plans and 2% of those families had practiced that plan. Several participating families (37 individuals) have reported to us that lives have been saved as a result of their newly installed smoke alarms. A Smoke Alarm Installation Program is an effective means of ensuring families have working alarms on every floor of their homes and an escape plan in place they can follow. By enlisting the help of other staff members and partnering with local fire agencies and/or injury prevention programs, hospitals can create similar programs to combat fire and burn injuries and death.

Mark your calendars and start spreadin' the news.....

The Phoenix Society's 2009 World Burn Congress is coming

to

Galveston, Texas on August 26-29, 2009



Phoenix Society
for burn survivors

(Continued: The Changing Face of Prevention in a Changing America)

- The South Asian community (India, Pakistan, Bangladesh) in Calgary identified that it was disrespectful to visit a fire station unless they had been invited. In their culture, they don't visit someone's home without an invitation, and the firehouse was where the firefighters lived. Proper etiquette was an invitation to their community leader from a fire leader.

These best practices are just the tip of the fire prevention opportunity iceberg. With a slight reframing to include our customers as partners these difficult and challenging budgetary times provide us with boundless opportunities to get outside the box and elevate prevention's noble work as an effective and efficient strategy to fulfill our missions to save lives and property.

For additional information about more effective fire prevention in multicultural communities, please contact info@fire2020.org or view their website at www.fire2020.org.

Treadmill Injuries: A Growing Trend among the Pediatric Population

By Angela Drelles, RN, BSN and Desiree Jimenez, EMT-B
The Children's Hospital, Aurora, Colorado

In home treadmill use has steadily increased since the late 1980's, today there are almost 40 million treadmills present in U.S. homes. Burn centers nation wide are seeing a rise in the number of treadmill friction burns specifically to the pediatric population. Approximately 8,700 injuries from home exercise equipment occur annually in children younger than 5 years of age in the United States. These injuries range from partial thickness to full thickness in depth. They can be difficult to treat due to their location and depth, with the hand the most common site of injury¹.

The Burn Program at The Children's Hospital in Colorado has treated 59 children from 2002-2008 with treadmill related injuries. 76% of these injuries were to the hand(s), 47% of these hand injuries required grafting. Of the remaining patients that did not sustain hand burns, 29% required surgical intervention. In our outpatient burn clinic we have observed a 53% increase in patients with treadmill related injuries from 2002. The mean age was 2.7 years.

All treadmills have a rotating belt that can entrap a child's hand or limb causing severe friction burns, lacerations and even amputations. The curious toddler is the most commonly affected group, due to the nature of this age group to explore their environment often with their hands. In a study completed at Sydney Children's Hospital in 2007, lack of supervision accounted for most injuries. The study also found that when the treadmill was in use by the caregiver, the child typically approached the treadmill from behind without the knowledge of the caregiver.

There are currently no treadmill safety guidelines regarding treadmill safety and children, thus education is considered necessary for prevention of treadmill related injuries. In 1999, the United States Consumer Product Safety Commission issued a warning about the hazard of exercise equipment in the home. The Commission warned, "Children's fingers can be amputated if they touch moving parts of exercise equipment, keep children away from all exercise equipment."

Prevention must start in the home with education to caregivers. Wong et al have listed practical recommendations to prevent treadmill injuries in children³.

Use a gate or lock the room while a treadmill is in use.

Position the treadmill to face the open room or door.

Avoid the use of headsets while on a treadmill.

Store treadmill away after use in a locked room.

Educate children on the dangers of a treadmill and that it is not a toy.

Treadmill injuries to the pediatric population are a preventable injury. These hand injuries are serious and can place a child at risk for long term impairment of hand function. Until home safety guidelines are established caregivers and children must be educated in order to prevent treadmill injuries from occurring.

References:

Collier M, Ward R, Saffle J, Edelman, L, Morris S, Lundy, C. Home treadmill friction injuries: a five year review. JBCR 2004; 25:441-444

Abbas M, Bamberger H, Gebhart, R. Home treadmill injuries in infants and children aged to 5 years: a review of consumer product safety commission data and illustrative report of case. JAOA 2004; 104: 372-376

Wong A, Maze D, La Hie E, Jefferson N, Nicklin S, Adams S. Pediatric treadmill injuries: a public health issue. J Pediatric Surgery 2007; 42, 2086-2089

Carman C, Chang B. Treadmill injuries to the upper extremity in pediatric patients. Ann Plast Surg 2001; 47(1): 15-9

***"The Firefighters Course I' will be held Wednesday, March 10
from 10:00 A.M. until noon for those interested in
the "Chemical Retardant"***

North Carolina Milestones in Health and Safety

By Adam Goldstein, MD, Ernest Grant, MSN and Anna McCullough, MSPH
University of North Carolina Chapel Hill School of Medicine
North Carolina Jaycee Burn Center

As we enter the New Year, two historic public health and safety achievements make North Carolina a healthier and safer place to live. On January 2nd, our state's Smoke-Free Bars and Restaurants law takes effect, a milestone public health achievement that has received deserved praise and attention in North Carolina and across the country. Smoke-free laws in other states and nations have had tremendously positive health effects for their citizens, most notably in significant reductions of heart attacks and asthma for those exposed involuntarily to secondhand smoke. That is something to celebrate!

The celebration for a healthier and safer North Carolina actually begins on January 1st, as the Fire-Safe Cigarette act, passed in 2007, is finally enacted. On that day, all cigarettes manufactured and sold in North Carolina will be designed to self-extinguish when left unattended. A simple manufacturing change, finally adopted by major cigarette manufacturers, dramatically reduces the risk that a dropped or forgotten cigarette will ignite a mattress, carpeting or sofa. Fire-safe technology has existed since the early 20th century, but the tobacco industry has actively fought its adoption. Mandating the use of fire-safe technology will help avoid the kind of destruction and tragedy too often caused by smoking-related fires in North Carolina.

Fires caused by unattended cigarettes are the leading cause of residential fire fatalities in the U.S. Compared to other residential fires, those started by cigarettes cause substantially greater numbers of deaths and injuries and result in higher damage costs. We have had too many tragic examples of the destructive force of fires ignited by smoldering cigarettes. Earlier this fall, a fire in Morrisville left more than two dozen people homeless just as the weather turned colder. Two years before that, a fire at a North Carolina beach house claimed the lives of seven college students. And, one decade ago, we mourned the death of five UNC students after an inferno, started by a smoldering cigarette that did not self-extinguish, destroyed a fraternity house and its occupants on the eve of graduation.

Nearly a decade later, after a group of committed advocates and legislators drove the issue of fire-safe cigarettes forward in our state, we join states around the country in adopting this common sense public safety measure. The North Carolina Coalition for fire-safe cigarettes, with leadership from the state's fire safety, injury prevention and tobacco prevention and control communities, made this a reality. Sadly, if the tobacco industry had adopted this technology in North Carolina and the rest of the U.S. decades ago, thousands of preventable deaths, tens of thousands injuries, and billions of dollars in economic loss would have been prevented from fires caused by cigarettes.

As we usher in a new decade, we celebrate our legislative success and the lives that such legislation will save not only in North Carolina, but also nationally. As of January 1, 48 states have finally adopted Fire-Safe Cigarette laws, effectively protecting most U.S. citizens with improved safety. North Carolina joined 27 other states with Smoke-Free Air laws for restaurants and bars. Fewer fires and cleaner air are things we all deserve, and these legislative achievements deserve attention. On January 1st, we took a moment to thank our legislature for making North Carolina a safer place. On January 2nd, we were able to go out to eat our favorite restaurant, take a deep breath and offer another moment of thanks that North Carolina is a healthier place.

*'The Firefighters Course II' will be held Thursday, March 11
from 10:00 A.M. until noon for those interested in
the "Burn Injury Prevention"*