

Childhood Unintentional Injuries in San Diego County: *A Report to the Community*



Safe Kids San Diego
December 2018

Childhood Unintentional Injuries in San Diego County: *A Report to the Community*

Safe Kids San Diego
December 2018

For additional information, contact:

Lorrie Lynn
Coordinator
Safe Kids San Diego
(858) 576-1700 ext 3547
llynn@rchsd.org



Safe Kids San Diego Childhood Unintentional Injury Report

Acknowledgements

Safe Kids San Diego gratefully acknowledges the contributions of the following agencies who made this report possible.

Safe Kids San Diego

Rady Children's Hospital- Trauma Department

County of San Diego, Health and Human Services, Public Health Services, Emergency Medical Services

County of San Diego, Health and Human Services, Public Health Services, Community Health Statistics Unit

The California Department of Public Health, Epidemiology and Prevention for Injury Control Branch

Live Well San Diego

Live Well San Diego encompasses community engagement on all levels. It starts with individuals and families who are leading efforts to be healthy, safe and thriving and grows through County-community partnerships to convene working groups, conduct program activities, and leverage each other's resources and capabilities to improve the health, safety and overall well-being of residents throughout San Diego County. For more information, please visit www.livewellsd.org



Safe Kids San Diego Childhood Unintentional Injury Report

December 2018

To the San Diego Community,

In August, I moved to San Diego to take on the position of Injury Prevention Manager at Rady Children's Hospital's Center for Healthier Communities. In that role I also have the great fortune to be the coordinator for Safe Kids San Diego. For the past eight years, I worked for the National Safety Council (NSC), headquartered in a suburb of Chicago. While at NSC, I built a knowledge base of injury prevention through safety education and training. Unintentional injuries are the leading cause of death and the largest percentage of those deaths are on the road and in the home. As I head into this new journey, I will be able to use my experience built at the National Safety Council as a foundation for taking action and working to drive down unintentional injuries for children of San Diego County.

I am grateful to the following organizations for their the contributions to this report. The Health and Human Services Agency, Public Health Services, Emergency Medical Services, made it possible to produce a childhood unintentional injury report for San Diego County. This unique report focuses on the overarching domains of injury that affect the children, ages birth through 14 residing in San Diego County and provides evidence informed tips for prevention to reduce the highest injury rates.

In the last report, looking at data from 2003 to 2013 the gains in reducing unintentional deaths continued at a modest pace . With to 3.6 per 100,000 unintentional deaths. There is a significant reduction in unintentional deaths in 2014 to 2016 of 2.7 per 100,000. However, changes in the International Codes for Diseases (ICD) from ICD 9 to ICD 10 may over estimate the trend lines in new Injury cause groupings. Although we can not make direct comparisons, its important to note that we are moving in the right direction. With this report, we will share work that was sparked by the past reports as we recalibrate this year. We look forward to working together with partner agencies and parent and community champions to achieve the goal of Zero unintentional deaths.

We invite you to participate in our efforts toward creating an environment that reduces the risk of injury in children and encourages active and healthy lifestyles.

Sincerely,

Lorrie Lynn
Coordinator
Safe Kids San Diego
(858) 576-1700 ext. 3547

Paige Hargis
President
Safe Kids San Diego



Table of Contents

Introduction.....	1
Overview of Childhood Injury in San Diego County.....	3
Leading Causes Table Fatalities	4
Leading Causes Table Hospitalizations	5
Leading Causes Table Emergency Department Discharges	6
Injury Pyramid.....	7
Injury Prevention Tips Infants-Birth to 12 months.....	8
Injury Prevention Tips Early Childhood- 1 to 4 years.....	14
Injury Prevention Tips Middle Childhood- 5 to 9 years.....	19
Injury Prevention Tips Pre-Teen- 10-14 years.....	24
Summary: Childhood Unintentional Injury in San Diego County.....	28
Injury Categories, Definitions, and Data Sources.....	29

Safe Kids San Diego Childhood Unintentional Injury Report

Introduction

Safe Kids San Diego is a coalition of community organizations and citizens devoted to providing advocacy, public awareness and education to prevent and reduce unintentional injuries and fatalities to children less than 14 years of age.

The **vision** of Safe Kids San Diego is to create a community where children ages 0-14 are free from unintentional injury and death. The **mission** of Safe Kids San Diego is to prevent and reduce unintentional injuries and fatalities of children ages 0-14 through education, public awareness and advocacy.

Safe Kids San Diego is part of a Worldwide Safe Kids organization. Safe Kids Worldwide was founded by Dr. Martin Eichelberger and Dr. C. Everett Koop at the Children's National Medical Center in Washington D. C. The San Diego Safe Kids Campaign was born out of the San Diego Safety Council which began in 1987. In 1992 Rady Children's Hospital -San Diego became the lead agency and the coalition became Safe Kids San Diego. The coalition currently consists of the following organizations:

- ♥ American Red Cross
- ♥ Pacific Safety Center
- ♥ San Diego Unified School District
- ♥ Pool Safe
- ♥ U.S. Consumer Product Safety Commission
- ♥ Bike Coalition of San Diego
- ♥ County of San Diego Health and Human Services Agency
- ♥ YMCA-Childcare Services
- ♥ San Diego Aquatics Council

There is an ongoing campaign to expand our coalition and develop new task force initiatives. It is our intent that this report will increase awareness of the prevalence of injury and encourage community members to join a coalition task force to develop and implement educational and advocacy program to address these issues.

Report Organization. Children develop at different rates, but generalities about their physical, cognitive, and behavioral development can be made at different ages. Based on research presented by Safe Kids in "Raising Safe Kids: One Stage at a Time," injuries occurring during the following four stages of development will be examined in the *Safe Kids San Diego Childhood Unintentional Injury Report*: Infancy (0-12 months), Early Childhood (1-4 years), Middle Childhood (5-9 years), Pre-Teen (10-14 Years).

Safe Kids San Diego Childhood Unintentional Injury Report

The report does not describe injuries that are caused by intentional mechanisms such as homicide, suicide and assault. However, it should be noted that current California law states intent cannot be verified in overconsumption of over-the-counter or prescription medication, therefore they are deemed unintentional poisonings.

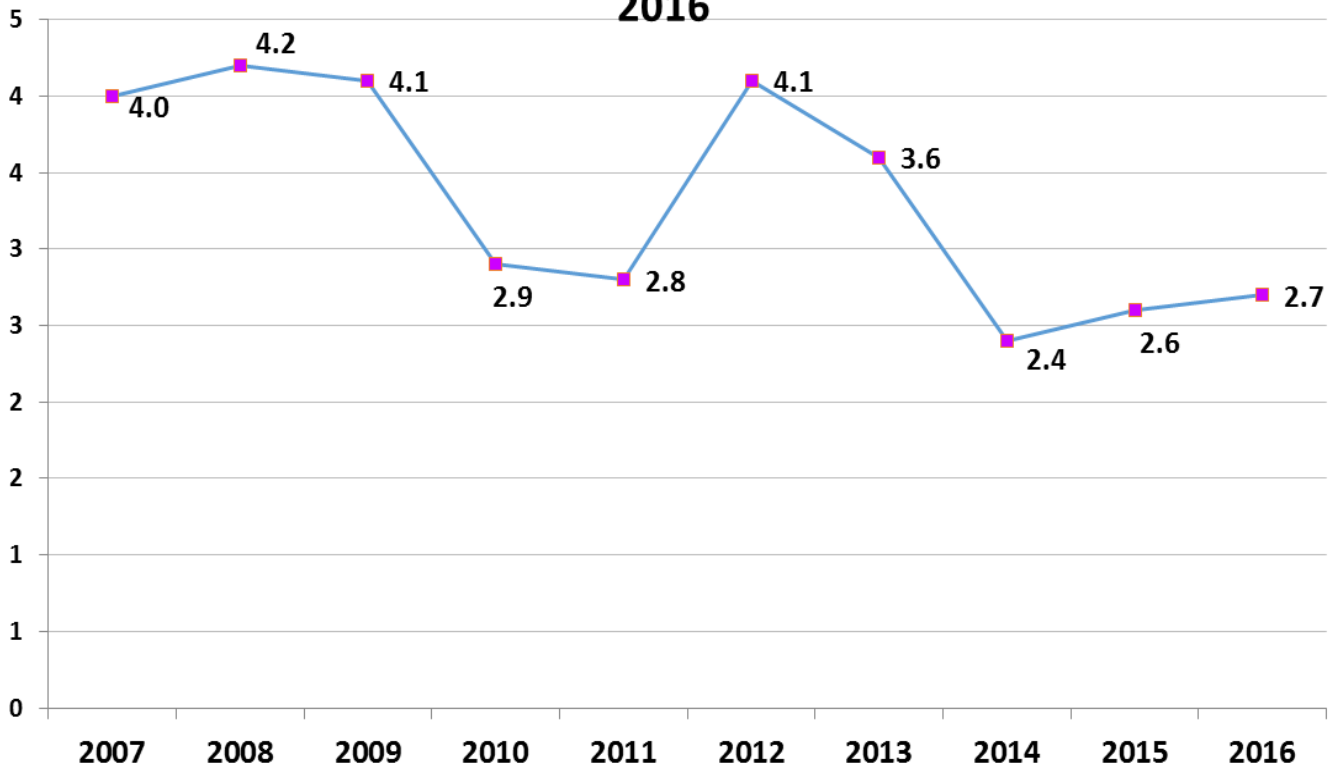
In addition to injury data, the report includes prevention strategies, tips for parents and caregivers, projects that grew out of data driven issues and stories of parent advocates who children experienced an unintentional injury.

The Safe Kids coalition suggests that you to use this information to assist in your efforts to support prevention activities in your home and community. By focusing on injuries that affect the greatest number of victims or pose the greatest risk to a specific population group, balanced with those injuries that have the greatest medical and societal impact, resources can be allocated to appropriate prevention efforts.

Unintentional Injury Death Trends

Over time, the rate of both unintentional injury death among 0-14 year old children has fluctuated. But it has been dropping. Due to the introduction of ICD 10 and the re-categorization of injury cause there is a new baseline which we will help set the course going forward.

Unintentional Injury Death Rate* Ages 0 to 14, 2007-2016



Source: California Department of Public Health, Epicenter, 2016. Prepared by: County of San Diego, Health and Human Services, Medical Care Services Division, Emergency Medical Services 06/2018

*Rate per 100,000 people

Leading Causes of Injury

Fatalities

Leading Causes of Unintentional Injury Death by Age Group, San Diego County, 20015-2018

Rank	Age Group				Total
	<1 Year	1-4 Years	5-9 Years	10-14 Years	
1	Suffocation (22)	Drowning/ Submersion (35)	Motor Vehicle (18)	Motor Vehicle (15)	Drowning/ Submersion (49)
2	Drowning/ Submersion (<5)	Pedestrian (15)	Drowning/ Submersion (9)	Pedestrian (5)	Motor Vehicle (47)
3	Fall (<5)	Motor Vehicle (11)	Pedestrian (9)	Bicycle (<5)	Suffocation (36)
4	Motor Vehicle (<5)	Suffocation (9)	Fall (<5)	Burn (<5)	Pedestrian (29)
5	Natural/ Environmental (<5)	Struck by Object (6)	Suffocation (<5)	Suffocation (<5)	Struck by Object (8)

Source: California Department of Public Health, Epicenter, 2016. Prepared by: County of San Diego, Health and Human Services, Medical Care Services Division, Emergency Medical Services 06/2018

Leading Causes of Injury

Hospitalization

Leading Causes of Unintentional Injury Hospitalization by Age Group, San Diego County, 2018

Rank	Age Group				Total
	<1 Year	1-4 Years	5-9 Years	10-14 Years	
1	Fall (59)	Fall (236)	Fall (283)	Fall (156)	Fall (734)
2	Burn (11)	Burn (47)	Struck by Object (32)	Struck by Object (34)	Struck by Object (89)
3	Natural/ Environmental (5)	Natural/ Environmental (41)	Motor Vehicle (27)	Pedestrian (25)	Burn (84)
4	Struck by Object (<5)	Drowning/ Submersion (23)	Other Transporta- tion (27)	Motor Vehicle (24)	Natural/ Environmental (78)
5	Cut/Pierce (<5)	Struck by Object (20)	Bicycle (24)	Bicycle (21)	Motor Vehicle (59)

Source: California Office of Statewide Health Planning and Development, Patient Discharge Data, 2016 Prepared by: COSD HHSA MCSD EMS, June 2018

Note: Leading causes are determined by the total number of hospitalizations in each category.

Leading Causes of Injury

Emergency Department Discharge

Leading Causes of Unintentional Injury ED Discharge by Age Group, San Diego County, 2018

Rank	Age Group				Total
	<1 Year	1 - 4 Years	5 - 9 Years	10 - 14 Years	
1	Fall (1,232)	Fall (7,083)	Fall (5,458)	Fall (4,299)	Fall (18,072)
2	Struck by Object (203)	Struck by Object (2,073)	Struck by Object (2,337)	Struck by Object (3,416)	Struck by Object (8,029)
3	Motor Vehicle (74)	Natural/ Environmental (751)	Natural/ Environmental (774)	Motor Vehicle (576)	Natural/ Environmental (1,999)
4	Natural/ Environmental (62)	Cut/Pierce (353)	Motor Vehicle (501)	Cut/Pierce (444)	Motor Vehicle (1,452)
5	Burn (49)	Motor Vehicle (301)	Cut/Pierce (473)	Natural/ Environmental (412)	Cut/Pierce (1,318)

Source: California Office of Statewide Health Planning and Development, Emergency Department Discharge Data, 2016 Prepared by: COSD HHSa MCSD EMS, June 2018

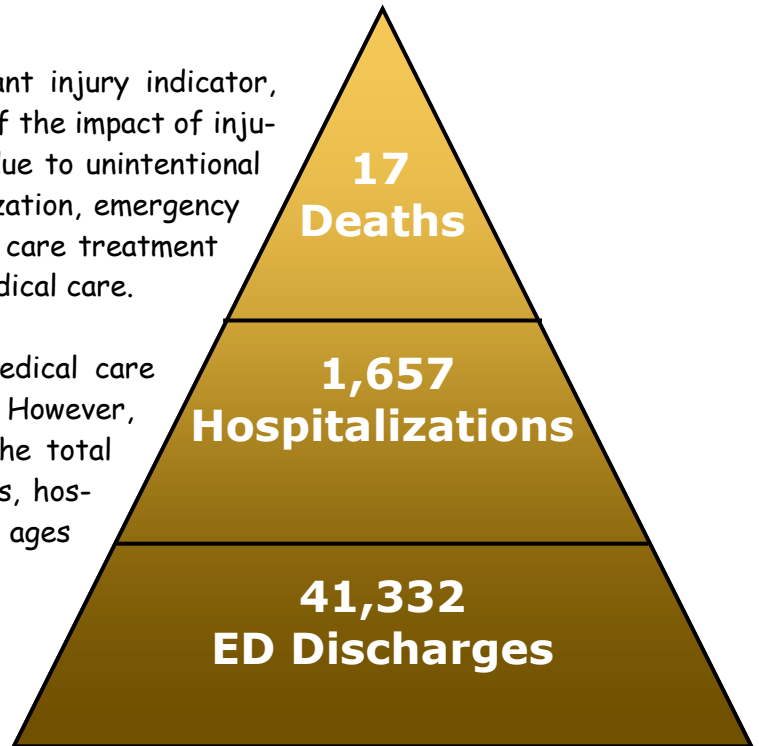
Note: Leading causes are determined by the total number of ED discharges in each category.

Safe Kids San Diego Childhood Unintentional Injury Report

The Injury Pyramid

While mortality data are an important injury indicator, they represent just a small fraction of the impact of injury on populations. For every death due to unintentional injury, many more result in hospitalization, emergency department (ED) treatment, primary care treatment or treatment not requiring formal medical care.

Unfortunately, primary care and informal medical care treatment for injury is difficult to quantify. However, the injury pyramid to the right describes the total number of unintentional injury-related deaths, hospitalizations, and ED discharges for children ages 0-14 years in San Diego County in 2016.



Year: 2016



Injury Pyramid

Injury Prevention Tips

Infants Birth to 1 year of age

Infants are particularly vulnerable to injury because they are completely reliant on adult caretakers for their safety. Their small size and lack of physical and mental development further increase their risk for and the severity of many injuries.

The greatest injury risk in this age group occur in the home and typically occur in the sleep environment, and/or while bathing.



Suffocation

Suffocation remains as the most common cause of unintentional injury and death in children birth to one year. Some of the reasons are the brain chemistry does not register a lack of oxygen as with older children. And children do not begin to roll or have adequate head control until three months. In addition there is a growing trend in bed sharing. Of the 22 suffocation deaths recorded 17 suffered accidental suffocation in bed.

In response to this persistent preventable issue, Safe Kids San Diego developed a county wide taskforce focused on raising awareness about safe sleep for infants. The target for the physician led awareness campaign are health care organizations across the county. This taskforce seeks to create consistent messaging and practices across the birthing centers resulting in consistent and clear messages for parents of newborns. Messages for new parents need to be simple and easy to remember. Across the county the **ABCs of safe sleep** is a simple and practical guide to keeping children safe every time a parent lays their child down to sleep, at night and during nap times:

A = Alone—not with other people, pillows, blankets or stuffed animals

B = On their back—not on their stomach or side

C = In their crib—on a firm mattress, and not on an adult bed, couch or other soft surface

The ABCs of safe sleep, when shared by trusted health practitioner gives new parents simple guidelines to keep their infant safe when they sleep.



Drowning

Drowning is the second most common cause of unintentional injury and death in this age group. Children of this age have disproportionately large heads and lack the strength to lift to upright if they find themselves bent over an object. They are also extremely curious, especially around water. Children can drown in as little as 2 inches of water if they find themselves face down in water. In 2018, San Diego saw 2 drownings in a bathtub which were attributed to a lapse in supervision; looking away for a moment. Therefore we recommend the following precautions around any type of water:

- ♥ Consult your health care provider about how to safely bathe your infant
- ♥ Never leave an infant in a bathtub or bathing tub without direct hands on adult supervision
- ♥ Secure the bathroom door with a child proofing door knob cover
- ♥ Secure your toilet lid with a toilet latch
- ♥ Empty all buckets immediately after use
- ♥ Empty all kiddie pools immediately after use
- ♥ Place a door alarm on your back door, if the home serves as a barrier to a backyard pool



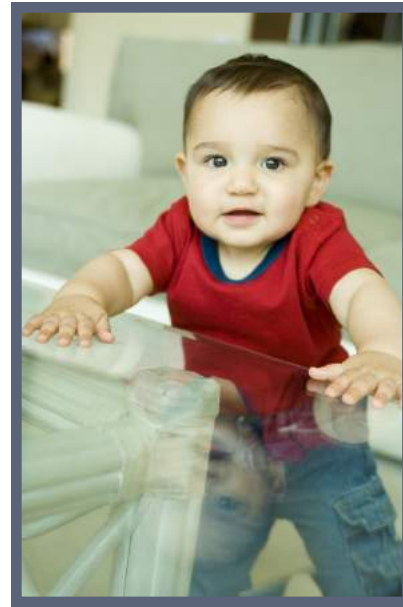
Falls

Falls remain the leading cause of hospitalizations over all age groups. In children birth to age one, most falls are from one level to another which includes falling from windows. In 2016, national data recorded 389 deaths due to falling

for children under one year of age.

Other causes of injury and death to young children include, falling down stairs, or placing the removable car seat on a counter or shopping cart. Children of this age are just beginning to pull up to stand, so it is important to secure all items to the wall to avoid objects falling on them. Baby walkers are also strongly discouraged by pediatricians. The walkers are not appropriate for the healthy development of lower body musculature.. Also, walkers allow children to travel faster and farther giving parents little time to react. Below are additional tips to prevent falls in this age group:

- ♥ Only open windows four inches, and use a dowel in the window track or a window stopper to prevent further opening
- ♥ Never leave you child on a bed or couch unsupervised, they will learn to roll before you know it!
- ♥ Place a baby gate at the top and bottom of all stairs
- ♥ Secure all furniture and televisions to the wall
- ♥ Avoid placing toys and other appealing objects on tall objects within sight of the child
- ♥ Never place your child in their removable car seat on a table, counter or shopping cart
- ♥ Avoid placing furniture near windows to prevent children from opening further
- ♥ Avoid baby walkers



Poisoning

As infants learn to crawl and put things in their mouths, they are more likely to ingest chemicals or small items such as pills that are found within their reach. Poisoning can occur through ingestion or contact with the skin. When in contact with these substances, infants are at increased risk of poisoning compared to older children due to their young age and developing bodies. In 2016, over 1200 children under one year old died from poisoning (National Safety Council, 2018. Injury Facts Online.).

Prevention of poisoning injury or death includes locking poisons and medication out of sight and reach, and ensuring infants receive the proper dosage of medication for their weight. Make sure you understand the dosage prescribed before you leave the doctor's office by repeating the instructions back to the provider to ensure you understand the instructions. Make sure that all purses and suitcases are removed from reach as they contain medications.

Burns and Scalds

Since our last report, burns and scalds are occurring at the same rate. Children of this age have very delicate skin and have not yet developed their temperature regulatory systems. Most of the children who sustain burn injuries at this age are unintentionally burned in bath water or spills from hot fluids such as beverages. We recommend the following strategies:

- ♥ Turn down your water heater to 120 degrees Fahrenheit or lower
- ♥ Always test bath water with the inside of your forearm prior to placing your child in water
- ♥ When drawing a bath, turn off the hot water first, mix the water and test the temperature before placing your child in the tub
- ♥ Face your child away from the faucet and knobs so they cannot turn them on
- ♥ Use a faucet spout cover to protect against the heat of the spout
- ♥ Use a travel mug with the lid firmly secured when drinking hot fluids around the home
- ♥ Secure child or remove child from the kitchen when handling hot items
Remove all open flames or lighters from reach

Prevention Tips Infants

Motor Vehicle Safety

Due to advances in child car seat technology, improved legislation and child care education, death and injury due to motor vehicle crashes has been reduced. Legislation also influences safety for infants and toddlers in motor vehicles. As of January 1, 2017, in California, all children must remain rear facing in their car seat until age 2. However there are other concerns with infants in vehicles. Below are some specific risk areas and prevention



- ♥ American Academy of Pediatrics recommends keeping your child rear facing until you reach the weight and height limit for that seat in rear facing, children have larger heads and poorly developed musculature at this age and rear facing helps protect the head, neck and spine during an abrupt stop or collision
- ♥ Prevention of Heat Related Illness (hyperthermia): As of September 28, 2018, the number of hot car deaths for children is 48. On average, 37 children die each year due to hyperthermia (<https://injuryfacts.nsc.org/motor-vehicle-safety-issues>). Most of these situations were unintentional, and typically occur when one care giver is transporting a child to day care, when it is not their typical routine. To prevent this tragedy we recommend that everyone **ACT**:
 - A**void: never leave your child alone in a vehicle, even for a minute, car temperatures can rise 20 degrees in only 10 minutes. Children of this age do not have well developed temperature regulation and cannot tolerate heat like adults
 - C**reate: Reminders to prevent accidentally leaving your child in a vehicle. Place a plush toy in the car seat when not in use, then place it in the front seat when child is in the car. Place your purse and cell phone in the back seat next to your child. Have the child care center call you if you are more than 10 minutes late
 - T**ake Action: Call 911 and the police if you see a child unattended in a vehicle
- ♥ Remove potential projectiles (articles that can become loose and strike your child) Make sure every passenger wears a seat belt, passengers not secured can cause trauma to other passengers. Secure all items that could potentially become dislodged and strike your child if you have to apply the brakes quickly, for example water bottles, books, toys. Place all items in the trunk or use a cargo cover.

Prevention Tips Infants

Injury Prevention Tips

Early Childhood 1-4 years of age



Children in this age group are developing both physically and mentally. Their increasing mobility gives them newfound independence to explore their surroundings. It is important that adult caregivers do not mistake their child's mobility and curiosity as independence. Children of this age have not yet developed the ability to problem solve or judge if a situation is safe or unsafe. This increase in mobility without the ability to judge safety places this group at increased risk of injury.

Safe Kids San Diego Childhood Unintentional Injury Report

Drowning Prevention

Drowning is the leading cause of injury in this age group. The majority of these deaths occur in swimming pools. Children of this age group are highly mobile and curious, especially around water. Physically they remain top heavy which predisposes them to becoming face down in water, and "A-Framing" over a structure holding water, whereas they bend over to get a closer look and lack the strength to right themselves. Which makes water in bathtubs, the ocean, and baby pools dangerous when they are unsupervised. Children of this age have not yet mastered the coordination and strength to swim or float.

The Safe Kids Drowning Prevention Task Force targeted raising awareness about water safety when buying or selling a home. The passage of SB 422, (Newman). Public health: pools: drownings, gave teeth to the recommendations regarding constructing new or rehabbing existing pools and spas. Again by targeting Real Estate agents, the Task Force conducted seminars and provided "Water Safety" brochures for them to share with prospective clients with steps to keep the home safe for children.

As always the following recommendations can help decrease the risk of drowning:

- ♥ Create a barrier around water; place door knob covers to bathroom doors, place toilet latches on toilets
- ♥ Install a 5-foot mesh fence with self-latching gate with a gate alarm around the perimeter of the pool
- ♥ If your home creates the 4th wall of the fence place a door alarm on the door exiting the home.
- ♥ Empty all buckets and kiddie pools immediately after use
- ♥ Install an Anti-entrapment filter in your pool and spa
- ♥ Consult your physician about the best time to teach your child to swim
- ♥ Learn CPR and rescue techniques
- ♥ Provide direct, arms reach supervision whenever children are in or near water
- ♥ Use a Coast Guard Approved lifejacket on children in or near water, on all docks and boats
- ♥ Check to ensure that all neighborhood pools are fenced, and have a locked gate
- ♥ If your child is missing, check your pool



Prevention Tips Early Childhood

Safe Kids San Diego Childhood Unintentional Injury Report

Falls

This age group is just learning to walk, and will stumble and fall as part of that process. However steps can be taken to avoid serious injury to due to falls.

Most children can ascend stairs fairly early on, but most cannot descend stairs safely until they are 2-3 years old. Every child enjoys climbing so it is best to remove temptations to climb up on objects and secure all furniture and TVs to the wall. In 2016–2017 data twenty-nine children 0-4 years of age fell from second story windows leading to injury (Rady Children's Hospital Trauma Department, 2018). Again, this age group is very curious, has mobility but lacks judgment about avoiding unsafe situations. Below are recommendations to make your child's surroundings safer:

- ♥ Place gates at the top and bottom of stairs (best to have secured into the wall)
- ♥ Secure all furniture and TV to the wall
- ♥ Remove any glass countertops from the home, or only use tempered glass
- ♥ Remove furniture with sharp edges, or place corner cushions on them
- ♥ Avoid placing furniture near windows
- ♥ Open windows to a maximum of 4 inches and place a window lock or dowel in the track to prevent further opening



Window Falls

The Safe Kids Falls Task Force had a laser focused on creating awareness about window falls for children under 5. Along with the recommended steps for safety, this group focused on window screens. Lead by a passionate advocate whose young daughter fell from their home's second story window the Task Force called on Real Estate agents to encourage home buyers to install window guards, locks, and gates to match the development and strength of the child in the home.

Prevention Tips Early Childhood

Safe Kids San Diego Childhood Unintentional Injury Report

Overdose/Poisoning

Children at this age, continue to place everything in their mouth to explore their environment. This includes potentially poisonous items. Everything can be potentially poisonous in the wrong dose including items such as lip stick. Children of this age, don't learn from the mistake of consuming something that makes them sick as an adult would. It is important to keep all items out of reach such as potpourri, lipsticks, perfume and make up. Many cleaning products look like beverages so it is important to keep all product in their original container and out of reach and secured. This includes dishwasher and laundry pods which can look like candy. Most detergent companies do not recommend buying this form of their product for families with children under 5 years old. Medicine and vitamins should never be referred to as candy and should be stored out of reach and secured. Double check dosage recommendations on all over the counter medications, and make sure you understand dosage of prescription medications by repeating back dosage amount and frequency to the healthcare provider before you leave the office.

Burns and Scalds

This type of injury remains a high risk for this age group as they have thin delicate skin and are susceptible to scalds. This age group also now has the ability to reach for objects and has no concept of fire or hot substances. Unfortunately most burns occur in the kitchen when an adult is present. These injuries are preventable in you follow a few simple steps to ensure your child is safer in this environment.

- ♥ Create a "Kids Free" zone in specific areas of the kitchen with the use of tape or rugs. For example use a mat in front of the oven and stove to keep kids several feet away.
- ♥ Ensure your child is seated well away from the stove or oven when handling hot items
- ♥ Turn all pots and pans inward so children cannot reach up and grab the handle.



Prevention Tips Early Childhood

Child Passenger Safety

Injury from Motor Vehicle Crashes is improving, due to improved car seat technology, education and proper installation of car seats.

To continue this positive trend, it is important that caregivers maintain the following tenets of child passenger safety:



Children should be placed in the correct **SEAT**

Children should be placed in the best **POSITION** in the vehicle

Children to be faced in the best **DIRECTION**

- ♥ Children of this age should remain rear facing until the highest weight and height limit for that seat. This being said, many parents opt for a rear facing only seat, which has lower weight and height limits. When a child outgrows the height weight limit before the age of 2, a new Convertible car seat should be used to maintain the child rear facing as long as possible. Pediatricians recommend at least 2 years so that a child's muscular strength can improve and they can better tolerate a forward facing position.
- ♥ Once forward facing, the child should remain in a 5-point harness to the upper height and weight limit for that seat, and should remain in the back seat.
- ♥ The middle seat of the back seat is the safest position in the vehicle, whenever possible the car seat should be installed in that position in the vehicle.

Prevention of rollovers, back overs and hot car deaths: Children of this age love to wander to explore their world, and will dart after a parent driving away in a vehicle. It is important to develop the habit of "Spotting the Tot" before you drive. Walk around the vehicle before starting the car and pulling away, or backing up from a parking spot. Also ensure that the door of the house is locked, or your child is holding the hand of an adult when departing the home.

Children of this age also suffer "hot car deaths" frequently by gaining access to an unlocked car and getting trapped inside. Always remember to lock your car doors, even when the car is in the drive way or garage.

Prevention Tips Early Childhood

Injury Prevention Tips

Middle Childhood 5-9 years of age

During middle childhood, children are developing more rapidly, have become even more independent, spend more time outside of the home traveling by car, bike and foot and play more in groups. Most children of this age have the coordination to learn how to swim, and some studies demonstrate that if an individual has not learned to swim by the age of 8, the chances of learning later in life are minimal. All of these factors increase the risk of injury during transport to and from home and the risk of injury during play-time activities. Children in this age group have not yet fully developed a sense of risk and safety and need direct adult supervision, guidance and good role models. This age group is the most adherent to rules and guidance and is most likely to repeat actions of a role model.



Prevention Tips Middle Childhood

Child Passenger Safety

Motor vehicle crashes are the leading cause of death and injury for children 5 to 9 years old. In this age group. Many of these injuries are preventable if the child is seated in the most appropriate car seat for the child's age, development and height. Seat belts are designed for adults that are a minimum of 4 foot 9 Inches tall. If an individual is not that tall, the seat belt will not restrain across parts of the body, that can best absorb the energy of an abrupt stop or collision. It is recommended that children remain in a 5-point harness to the upper weight and height limits for that seat, then transition to a booster seat. Many young children can unbuckle a car seat in a booster. If your child is inclined to unbuckle themselves, it is advised to purchase a car seat with a high harness weight and height limit to keep them in a 5-point harness until they are old enough to understand the importance of staying buckled up!

Children should ride in the back seat of the vehicle until the minimum age and height required by California Law (8 years old and or 4 foot 9 inches tall). The American Academy of Pediatricians recommends that children remain in the rear seat until their 13th birthday, it is the safest seat for travel. However, as children grow older they may resist being in the back seat in a booster seat because of peer influence. Children are ready to transition into a seat belt when they correctly fit in a seat belt and can pass the 5 Step Safety Belt Test outlined below:

- ♥ Can the child sit with their hips all the way to the back of the seat?
- ♥ Are their knees comfortably bent over the edge of the seat?
- ♥ Does the Shoulder strap of the belt cross over the midline of the shoulder and chest?
- ♥ Does the Lap Belt cross low over the top of the thighs?
- ♥ Can the child remain seated like this for the duration of the trip?

Many children grow in varying proportions; many grown in height through the length of their legs before their torso can catch up! They may reach a height of 4 foot nine inches, but have a short torso and do not pass the 5-Step Safety Belt test. These children need a booster seat to position them correctly to use a seat belt. Consult a certified child passenger safety specialist to get advise on the best seat for your child.

Drowning Prevention

Drowning is the second leading cause of unintentional death for children in this age group. Many children have learned to swim some basic strokes by this age. We encourage parents to speak to their pediatrician about the best age to begin swim lessons based on the child's growth and development. Regardless of swimming abilities children of this age should never be left unattended near water, they require arms reach adult supervision at all times. California law requires that children of this age group wear a Coast Guard approved life jacket when they are on a dock or a boat. Safe Kids recommends care takers adopt a "Water Watcher" policy when ever children are near or in water.



The **Safe Kids Drowning Prevention Coalition** developed Water Watcher tags (see right) which provides guidelines for adults to keep eyes on children while near water, especially pools. The coalition has strong and active partners like the Prevent Drowning Foundation of San Diego. Their goal of teaching every child in San Diego how to swim moved forward in 2018 by reaching over 5000 children with swim lessons.

The Water Watcher

Commits to:

- ♥ Keep their eyes on the water and children at all times
- ♥ Stay within arms reach of children in the water
- ♥ Know how to use simple rescue techniques such as a life ring or hook
- ♥ Have a cell phone on hand to call 911
- ♥ Know CPR and rescue breathing

Pedestrian Injury

Pedestrian injuries are the third leading cause of death and hospitalization to children in this age group. Children of this age perceive traffic very differently from adults. Developmentally children in this age group:

- ♥ Have less peripheral vision than adults, so they cannot see objects approaching from the side as well as adults
- ♥ Cannot localize the location of a sound, for example cannot judge the location of the sound of an approaching vehicle or sirens
- ♥ Do not understand that if they can see a car, a car might not be able to see them
- ♥ Can only focus on one activity at a time, for example if they are playing ball, they are only focused on the ball and can bolt into the road if chasing a ball
- ♥ Have poor impulse control, they will run to see a parent without checking for oncoming cars

Walking to school is an important part of a child's daily activity. Parents should walk their child to school, and remain within arm's reach, or have an adult directly supervise them until the child is at least 10 years old. Teaching children safe walking habits and modeling those behaviors is extremely important. It is recommended that pedestrians cross streets at intersections, preferably with a signalized light and cross walk. It is also important to make eye contact with drivers and ensure they are stopping for you, before you step out into the street. Teach children to always look right, left then right again to make sure there is no oncoming traffic. As with all other modes of transportation, teach your children to put down the cell phone and unplug the radio or MPS player while walking especially when crossing streets.

Safe Routes to School (SRTS) is a proven strategy for building a culture of safety and health by walking to school. SRTS programs bring together school personnel, adult caregivers, adult volunteers and children to identify safety challenges with routes and mitigate those challenges to create safe walking routes. Through events like walk-to-school days or student walking clubs, school leaders become the center supporting healthy behaviors and exercise for both children and adult caregivers.



Safe Kids San Diego Childhood Unintentional Injury Report

Sports Injury Prevention

Children of this age are beginning to play organized sports and much of their unstructured play is with other children. Many of the children injured in the "Struck By" category are injured in sport. Make sure that your child has the correct equipment for the sport and that it is well fitted. Make sure your child always wears a helmet while playing a sport that requires one. It is also important to vary the sport, and ensure that your child is limiting certain activities as recommended by your pediatrician, such as limiting the number of pitches in a game. Natural play offers a balanced way for your child to develop their strength and coordination and have fun in the process!

Bicycle-Related Safety

Riding in vehicles is not the only safety concern in children of this age group. Bicycle riding is also a leading cause of hospitalization for this age group. Teach children safe bike riding habits and consider having them participate in a bike rodeo or bike safety class to learn how to maintain their balance while trying to avoid an object in the road, turn to look for traffic and ride in a straight line. Always wear a helmet on any set of wheels!

California law requires that all children under the age of 18 years of age wear a helmet, whenever they are riding on any type of wheels, that includes: bikes, scooters, skateboards, or rollerblades.

In 2018, the passage of AB3007 the bicycle helmet safety and enforcement law changed helmet enforcement. If a child rides without a helmet he/she is issued a "fix-it-ticket" which requires the rider to produce a helmet and take a bike safety course. Focus on safety not punishment.



Prevention Tips Middle Childhood

Injury Prevention Tips

Pre-teen 10-14 years of age

When a child becomes a Pre-Teen, children are awkward and striving for independence. Adult caregivers try to strike a balance with allowing freedom and still insuring their child's safety. Often this means less adult supervision and looking to peers for guidance. Studies have also shown that components of the brain that assist with decision making and judgment are not fully developed until most individuals reach their early twenties. All of these transitions lead Pre-Teens to begin feeling invincible which can lead to more risky behavior.



Prevention Tips Pre-Teen

Safe Kids San Diego Childhood Unintentional Injury Report

Motor Vehicle Crashes

Motor Vehicle Crashes are the most common cause of unintentional injury death for San Diego Children ages 10-14 years. Children in early adolescence often stop using booster seats, even if they have not reached the appropriate height for a seat belt (4 foot 9 inches or taller). This leads to more serious injury in a crash. Pediatricians also recommend that children remain in the back seat of a vehicle until they reach their 13th birthday, many children have not reached the required weight for most airbag deployment systems. Children of this age require good role models and reinforcement for good behavior. Many experts believe that if you encourage a safe passenger at this stage they will become safer drivers later. With that in mind, reinforce that your children always use a seat belt, and only travel with others that also wear their seatbelt. Reinforce that children should not ride in vehicles with older children with a provisional license. Encourage your children to never ride with a driver that is distracted or has consumed any alcoholic beverages. Together, you and your children learn about the driving risks and together each should take a pledge to be a non-distracted driver and a safe passenger by visiting Driventosafety.org and taking the pledge for safer driving.

Pedestrian Injuries

Pedestrian Injuries are the second leading cause of death in children of this age group. At this age many are walking without adult supervision, and many take risks while walking as they can be distracted by friends. Use of cell phone, either talking or texting has shown to be a major concern with pedestrian safety. Encourage your children to unplug and take a moment of silence, especially when they cross the street. Encourage them to always cross at an intersection and always, look, left, right, then left again and ensure that there is no oncoming traffic and that cars see them before they attempt to cross. Visit Safe Kids, safekids.org/distracted-walking-pledge and join your child in taking the "Moment of Silence" pledge to take action against distracted walking habits.



Prevention Tips Pre-Teen

Sports Related Injury, Falls and Overexertion

Sports related injuries include overuse injuries, fractures, heat related illness and head injury. It is important that young athletes participate in a variety of sports to balance the development of their strength, flexibility and endurance and avoid overuse injuries. Make sure safety equipment such as protective pads are in good condition and are well fitted to each athlete. To avoid heat related injury, practice an acclimatization program in gear intensive sports like football, so that athletes can acclimate to the increased equipment over time. Avoid outdoor activities and sporting activities during the hottest time of the day (11 a.m. to 4 p.m.) and modify activity with high temperatures and high humidity. Ensure athletes begin hydrating the night before, and drink fluids every hour, 2 to 4 ounces each hour depending on age and weight. Head injury, specifically concussion has been a focus of attention with young athletes for good reason, younger athletes are more susceptible to concussion and take a longer time to recover, especially with cognitive activities such as reading and school work. Make sure athletes wear a helmet that is in good condition and well fitting. Promote a culture of safety in every sporting activity. Promote a reporting system for everyone on the team to call out an athlete suspected of an injury, especially a head injury. Early detection and appropriate care is key to avoiding severe consequences of all types of injury, For more information on how to prevent head injuries in sports go to [cdc.gov/headsup.](https://www.cdc.gov/headsup/)



Prevention Tips Pre-Teen

Wheel-Related

Bike and Skate Board Injuries are equal to the occurrence of pedestrian injuries and can be compounded if the child is not wearing a helmet. California Law requires that all children under the age of 18 wear a helmet whenever they are on wheels. This includes bicycles, skateboards, scooters, and roller skates. Children should avoid riding at dusk or at night. In circumstances with poor lighting a front a rear light should be used while riding.



Modeling safe bicycle behaviors, teaching children bicycle safety rules for the road, and making sure they wear a properly fitting helmet can help to reduce the frequency and severity of bicycle-related injuries among children of this age.

Working for Change—Skateboarding Culture

The **My Grey Matterz** campaign was born from the personal experience of one family who's 13-year-old son, Alex, was placed in a medically induced coma due to a severe traumatic brain injury (TBI) sustained while playing on a skateboard in their front driveway. Over the course of the next 61 days, where they were unsure if he would even survive, the family learned of the near epidemic rise in traumatic brain injuries from skateboarding accidents. From 2013 - 2015 there were an astonishing 373 skateboarding injuries in San Diego County that resulted in emergency room admissions. Of those 373 injuries, 81% of those sustained a Traumatic Brain Injury, and only 9% were wearing a helmet. This staggering number motivated Alex and his family to bring awareness to this very preventable tragedy.

Safe Kids San Diego Childhood Unintentional Injury Report

SUMMARY: CHILDHOOD UNINTENTIONAL INJURY IN SAN DIEGO COUNTY

Unintentional injuries are a leading cause of mortality and morbidity among children in San Diego County, and thus a serious public health problem. However, childhood injuries can be predicted and they can be prevented. Recognizing the physical, behavioral, and cognitive changes that children experience as they grow help to predict the type of injuries they might incur. Understanding the risk factors associated with injury at different ages gives all adult caregivers strategies for injury prevention regardless of gender, race/ethnicity, poverty and community of residence.

The leading cause of unintentional injury death differed by age group. For infants less than one year of age, suffocation accounted for more than half of all deaths. Children ages 1-4 years were more likely to die due to drowning than any other injury, and children ages 5-14 years were most likely to die due to motor vehicle crashes or pedestrian injuries. The leading cause of hospitalization and ED discharge for all age groups, 0-14 years, was fall-related injury.

This report focuses only on age related risk factors, using death, hospitalization and ED discharge data. While these data do not capture the burden of all injuries, such as those treated at primary care sites, other medical care clinics, or at home, this information is incredibly valuable. It can be used to help local governmental and community groups prioritize programs targeting high-risk population groups, better direct resources, identify and evaluate prevention activities, and track trends.

For more detailed data on childhood unintentional injuries, contact the County of San Diego, Public Health Services, Community Health Statistics Unit at (619) 285-6429, or visit www.sdhealthstatistics.com.



Summary

Safe Kids San Diego Childhood Unintentional Injury Report

Injury Categories

The injury categories used in this report were developed by the EPIC Branch of the CDPH by making slight changes to the CDC's recommended cause groupings for ICD-9 and ICD-10. Hospitalization and ED discharge data use ICD-9-CM e-codes and death data use ICD-10 definitions to identify the mechanism of injury. The mechanism of injury identifies the agent, product, instrument or activity that led to the injury. For the purpose of this report, only unintentional injuries are described. For a detailed description of the injury category definitions, go to: <http://www.applications.dhs.ca.gov/epicdata/help/icd.htm>.

Unintentional Injury Definitions

Burn/Scald: Asphyxia or poisoning due to conflagration or ignition, burning by fire, secondary fires resulting from explosion; damage caused by hot substance/object, caustic/corrosive material, and steam (ICD-10- UVWXY Codes X00-X09, X10-X19).

Cut/Pierce: Injury caused by cutting and piercing instruments or objects, such as power tools, knives, or glass (ICD-10- UVWXY Codes x25-29, X45).

Drowning/Submersion: Injury caused by cutting lack of oxygen resulting from insufficient air and ingestion of water (ICD-10- UVWXY Codes W65-W74).

Fall: Injury caused by a fall from different levels or the same level, such as tripping, stumbling, fainting; also includes jumping (ICD-10- UVWXY Codes W00-W19).

Motor Vehicle Occupant (MVO): Injury caused by a collision on a public street or roadway harming vehicle occupants (ICD-10- UVWXY Codes V30-V79(.4-.9), V83-V86(.0-.3)).

Pedestrian-Related: Injury caused by a collision on a public street or roadway harming pedestrians; collision in private spaces such as driveways or parking lots harming pedestrians (ICD-10- UVWXY Codes V02-V04(.1,.9), V09.2, V01(.0-.9), V02-V04(.0-.9), V09(.0,.1,.3,.9)).

Bicycle-Related: Injury caused by a collision on a public street or roadway harming bicyclists; collision in private spaces such as driveways or parking lots harming bicyclists, or damaging spills by bicyclists without motor vehicle involvement (ICD-10- UVWXY Codes V12-V14(.3-.9), V19(.4-.6)V10-V11 (.0-.9), V12-V14(.0-.2), V15-V18(.0-.9), V19(.0-.3,.8,.9)).

Other Transport: Injury caused by an incident involving other means of transportation, such as trains, planes, boats, or buses to persons other than pedestrians or bicyclists, (ICD-10- UVWXY Codes V80(.3-.5), V81.1, V82.1V20-V28(.0-.2), V29(.0-.3), V30-V79(.0-.3), V80(.0-.2,.6-.9) V81-V82(.0,.2-.9)v83-V86(.4-.9)V87.9,V88(.0-.9)V89 (.0,.1,.3,.9)V90 -V99).

Definitions & Sources

Safe Kids San Diego Childhood Unintentional Injury Report

Natural/Environmental: Injury caused by excessive heat or cold, lightning or other environment factors; includes animal bites & insect bites and stings (ICD-10- UVWXY Codes W42-W43, W53-W64, W92-W99, X20-X39, X51-X57).

Overexertion: Injury caused by excessive physical and/or strenuous movements (ICD-10- UVWXY Codes X50).

Struck by: Injury caused by striking by or against a blunt object or person (ICD-10- UVWXY Codes W20-W22, W50-W52).

Suffocation: Injury caused by the inhalation or ingestion of objects causing obstruction of the respiratory tract (ICD-10- UVWXY Codes W75-W84).

Rate Calculations

Rates are used to compare groups of unequal size in order to reveal disparities. All rates presented in this report are calculated as the number of injuries per 100,000 population, and can be interpreted as follows: "In 2016, for every 100,000 children aged 5 to 9 in the population, X number were discharged from the ED with an injury ," or "the rate of injury ED discharge was X per 100,000 population in 2016."

Data Sources

Death Data: Cause of death by injury status and intent, and trend data were obtained from the California Department of Public Health, Center for Health Statistics (CDPH CHS), Death Statistical Master Files, and prepared by the County of San Diego, Health and Human Services Agency (CoSD HHSA), Community Epidemiology. Leading causes of injury death and age-specific causes of injury death were obtained from the CDPH, Epidemiology and Prevention for Injury Control (EPIC) Branch, Vital Statistics Death Statistical Master File, and prepared by the County of San Diego, Health and Human Services Agency, Public Health Services, Emergency Medical Services (CoSD HHSA PHS EMS). Death data presented in this report are for the years 2004-2013.

Hospitalization Data: Hospitalization data used in this report were obtained from the CDPH, EPIC Branch, Office of Statewide Health Planning and Development, Patient Discharge Data. All hospitalization data is for the year 2013.

Emergency Department (ED) Discharge Data: ED data used in this report were obtained from the CDPH, EPIC Branch, Office of Statewide Health Planning and Development, Emergency Department Discharge Data. All hospitalization data is for the year 2013.

Definitions & Sources



SAFE KIDS SAN DIEGO

Lead Agency:

Rady
Children's
Hospital
San Diego



Rady Children's complies with applicable state and federal civil rights and non-discrimination laws. See <https://www.rchsd.org/patients-visitors/summary-notice-of-nondiscrimination> for additional information regarding our policies. Language assistance services, free of charge, are available to our patients and visitors. Call 858-966-4096/TDD: 858-627-3002 for more information.

