# Florida HEALTH

# Unintentional Fall Injuries – Children Aged 0 – 17 Years Miami-Dade County 2010 - 2012



Falls are far and away the leading cause of nonfatal injury to children aged 0-17 years, accounting for 35% of all nonfatal medically-treated injuries.

Between 2010 & 2012, there were 59,285 emergency department (ED) visits, 1,337 hospitalizations, and one death due to unintentional falls to Miami-Dade County children aged 0-17 years.

- The injury rate for unintentional falls for children has slightly increased since 2010, up 4% in 2011 and another 4% in 2012.
- Unintentional falls occurred most frequently during the late afternoon (20% of all falls) and early evening hours of 6 – 9 pm (26%).
- There was no difference in the day which the fall occurred.



## Who is at Risk?

- Unintentional falls occurred most often to children under 5 years of age (44% of fall injuries). The age 0-4 fall injury rate was 72% higher than children aged 5-9 and decreased as children aged.
- Male children suffered 59% of unintentional falls and had a rate 39% higher than female children.
- Hispanic children suffered approximately two-thirds of unintentional falls and had a rate 25% higher than African American children.
- There was little difference in unintentional fall rates among African American and White Non-Hispanic children.





#### **Body Region Injured From Unintentional Fall Injuries**

- 46% of all medically-treated fall injuries occurred to the head or neck, of which 6% resulted in a diagnosis of traumatic brain injury (TBI).
- Upper (31%) and lower (17%) extremities were the next most common site of fall injuries.
- Nearly 3 of every 4 nonfatal fall injuries to children aged 0-4 years were to the child's face, neck, or head.
- As children aged, the percentage of fall injuries to the face or head decreased and injuries to the upper and lower extremities increased.



#### **Primary Injury Diagnosis**

Nature of Injury:

• Fractures (26%), open wounds (21%) and superficial injuries such as contusions (19%) accounted for two-thirds of medically-treated unintentional fall injuries.

Primary Diagnosis:

- Upper extremity fractures were the most common primary diagnosis, accounting for a third of hospitalized falls and 20% of falls treated in the ED.
- Approximately one-fourth of hospitalized patients were diagnosed with a traumatic brain injury (TBI).

Leading Injury Diagnoses	Hospitalizations	ED Visits
Upper Extremity Fracture	33%	20%
Open Wound: Head/Neck	2%	19%
Superficial Wound Head/Neck	< 1%	9%
Lower Extremity: Sprain/Strain	< 1%	6%
Superficial Wound: Upper Extremity	< 1%	4%
TBI	27%	2%

#### **Activities Causing Injuries Due to Falls**

Identifying the causes for any injury is essential for injury prevention because modifying or eliminating the external causes are among the most effective ways to prevent injury. Unfortunately, the data sources typically used to monitor injury often don't provide enough information to identify the specific cause of an injury. As seen in the table below, over half of the fall injuries were coded in the medical record as an unspecified fall. Among fall-related injuries that contained a cause-of-injury, the leading causes of child fall injuries included:

- Slipping or tripping on the same level was the most common cause of medically-treated fall injury for every age group. Records don't specify on what or where the children tripped or slipped.
- Falls from bed accounted for nearly 1/2 of fall injuries to infants < 1 year old and was the 2nd leading cause of fall injury to children 1-4 years old.
- Injuries that occurred at playgrounds were the 4th leading cause of medically treated falls (n=2,139). A total of 94 children were hospitalized due to playground falls and 2,045 were treated in the emergency dept. Playground injuries accelerated at age 2 and peaked at 5 years of age. Approximately half of the playground injuries resulted in an upper arm fracture.

Fall Type	Percent
Slip/Trip	19%
Fall From Bed	10%
Other/Different Level Fall	6%
Fall From Playground Equipment	4%
Fall From Chair	3%
Fall From Stairs/Steps	2%
Fall From Other Furniture	2%
Fall From Skateboard	1%
Fall From Roller Skates/Blades	1%
Other/Unspecified Fall	51%

## **Reducing the Risk of Falls**

These simple home safety tips can help reduce the risk of falls:

• Use gates at the top and bottom of staircases.

• Baby walkers should never be used. They are very dangerous because they can tip over and allow children to reach things they wouldn't otherwise get to. Instead, use a playpen or stationary play toy without wheels.

- Never leave a baby or child alone on furniture like changing tables, beds or sofas
- Fasten straps on equipment such as high chairs, changing tables, and strollers.
- Consider window guards or stops for windows above the first floor. Fixed guards or bars (ones that can't be removed in an emergency) should not be used.
- Children should not play on balconies. Spaces between the vertical rails on balconies should be no wider than 4 inches.
- Secure heavy furniture, like dressers and bookshelves, to the wall with brackets or straps. These can tip over when a child tries to grab something or climb up.
- Try using something else besides a shopping cart. Use a front pack, backpack or stroller. Consider bringing another adult to watch your child if you can.
- If you do use a shopping cart,
  - Try to use safer carts ones with seats that allow children to ride close to the ground.
  - Always have the child sit in the seat using the safety strap. They shouldn't be in the basket or standing on the outside.
  - Never place an infant carrier in or on top of the cart.

Active play is an important part of healthy child development. Spending time at the playground allows children to use muscles and move their bodies in new and challenging ways. Unfortunately, not every playground is as safe as it should be. To help prevent injuries, keep these things in mind as you choose a play space for your child:

- Always supervise children on playground equipment. Make sure you can see all play areas.
- Equipment checks:
  - The surface under the equipment should absorb energy to help prevent fall injuries.
    Good surface covers are rubber, a deep layer of sand, or wood chips. Exposed concrete, grass or wood are not acceptable.
  - o High surfaces should have guardrails to prevent falls.
  - Any space between equipment should be less than 3 ½ inches or more than 9 inches, to prevent children from getting trapped.
- Age-appropriate play areas: Play areas are usually made for either preschoolers or school-aged children. They should stick to play areas for their age group only. Equipment for school-aged children is not safe for preschoolers. Older children can also become trapped in the smaller pre-school equipment.

Produced by the Florida Department of Health - Miami-Dade County DATA SOURCES: Death Certificates, Office of Vital Statistics, FL Dept. of Heath Hospitalization and Emergency Department Data, Florida Agency for Health Care Administration. PHONE: 305-470-5649 E-MAIL: anthony.llau@flhealth.gov WEBSITE: http://dadehealth.org/injury/INJURYintro.asp