Prevention of Childhood Injuries
Creating a Healthy and Safe Child Care Environment

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Scope

1. Safety measures in the Care Centre & Playground
2. Handling common accidents
3. Developing children’s awareness of safety
Safety Measures in the Care Centre

- Child to staff ratio
- Transport
- Indoor furnishings & equipment
- Fire safety
- Water safety
- Electrical safety
- Toy safety
- Playground safety
Child To Staff Ratio

• Affects quality of care
  – children learn faster → more positive developmental outcomes
  – talking & learning more often
  – in distress less often
  – less exposed to danger
  – more cooperative & responsive
  – providers give better attention
## Child To Staff Ratio

- **Recommendations by APHA/AAP**

<table>
<thead>
<tr>
<th>Age</th>
<th>Max. Grp Size</th>
<th>Child-Staff Ratio</th>
<th>MCYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-24 mths</td>
<td>6</td>
<td>3:1</td>
<td>5:1 (&lt;18 mths)</td>
</tr>
<tr>
<td>25-30 mths</td>
<td>8</td>
<td>4:1</td>
<td>8:1 (18-30 mths)</td>
</tr>
<tr>
<td>31-35 mths</td>
<td>10</td>
<td>5:1</td>
<td>12:1</td>
</tr>
<tr>
<td>3 years</td>
<td>14</td>
<td>7:1</td>
<td>15:1 (3-4 yrs)</td>
</tr>
<tr>
<td>4-6 years</td>
<td>16</td>
<td>8:1</td>
<td>25:1 (4-7 yrs)</td>
</tr>
<tr>
<td>&gt; 7 years</td>
<td>-</td>
<td>5:1</td>
<td></td>
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</tbody>
</table>
Transport

- Release child to only designated person
- Designate pick-up/drop off zone
- Child-care staff to supervise children till release/boarding the bus
- Remind children about safety rules & proper behavior
- For bus - equip with a fire extinguisher & a first aid kit
- Have available emergency contact info for each child who ride on the bus
Indoor Furnishings & Equipment

• Walls & ceilings are clean, in good repair, with no peeling paint or damaged plaster

• Have child-sized furniture/equipment
Indoor Furnishings & Equipment

- Discard items with sharp corners, protruding nails or bolts, loose/rusty parts, small parts or with toxic finishes

- Use corner & edge bumpers to prevent injuries
Indoor Furnishings & Equipment

- Cords from window coverings should be out of children’s reach

- Medicines, cleaning agents & tools are out of children’s reach

- Use door knob covers & door locks/gates to prevent access to potentially hazardous areas
Indoor Furnishings & Equipment

- Teach child not to stand next to door
- Use door stops & door holders to prevent injuries to fingers & hands
- Use safety latches or locks on drawers
Water Safety

- **Bathroom/Toilet**
  - no entry to younger children without supervision
  - install anti-slip strips in bath area
  - close lid of toilet at all times
  - install scald-resistant taps (<48°C), especially in areas accessible to younger children
Fire Safety

• Smoke detectors should be installed
  – test monthly, replace batteries yearly

• Install fire-extinguishers

• Written plan for fire evacuation & should be posted visibly

• Practice fire drills regularly
Electrical Safety

• Installation certified by authority

• All electrical cords should be out of children’s reach

• Electric outlets are covered with child-proof caps

• Try not to use extension cord – should not pose potential safety hazard

• Ceiling fans should be high enough – do not use standing fans
Toy safety

• Small objects and toys can be a hazard
• Keep the following out of reach of younger children:
  – coins, marbles, plastic bags, safety pins
  – toys or objects <3 cm diameter
  – toys or objects with sharp points or edges
• No projectile toys
• Don’t mix toys for different age groups
More than 350 children with injuries sustained in the playground are managed in the Children’s Emergency annually...
Playground Safety

- 87% lacked adequate protective surface
- 62% of climbing equipment was too high
- 58% had swings that were too close

Injuries
- cuts, bruises, head injury, spinal trauma
- falls 75%

- Majority could be prevented by close supervision & better designed equipment
Playground Safety

• General rules
  – Conduct check that playground equipments are in safe condition
    • No rusty parts, loose joints, sharp edges, unsteady stands or sharp protruding ends
  – Playground areas should be properly maintained (free from sharp or harmful objects e.g. broken glass)
  – children should play on age-appropriate equipment
Playground Safety

• Slides
  – Use ladder to climb up instead of the sliding surface
  – Don’t permit pushing & shoving on the ladder
  – Have children go up the ladder one at a time
  – Teach them to leave the bottom of the slide as soon as they reach it
  – In hot weather, check the sliding surface to see if it’s too hot
Monkey Bar Injuries

- >80% Children < 10 years old
- Monkey bar is suitable only for the older children (>10 years)
- In playground, warning should be put up to discourage younger children from playing the monkey bar
- Lower the height of the monkey bar
- Otherwise, it should be banned altogether!

Supracondylar fractures sustained from falls off the monkey bar…
“accidents”? Or predictable and preventable?

“Monkey bars are for monkeys only”
Handling common accidents

• General measures
  – Have emergency numbers posted by the phone--police, ambulance
  – Keep parents’ consent forms for emergency treatment and numbers for emergency contacts on file
  – Take pediatric CPR and first aid training every year
  – First Aid Room / First Aid Kit fully stocked and out of reach of children
Handling common accidents

• General measures
  – Post first aid procedures where they can be easily seen.
    You may want to copy and laminate the list of first aid measures
  – Write up an emergency procedure and evacuation route and make sure you are familiar with it
Handling common accidents

• If an injury occurs:
  – Stay calm
  – Check for life-threatening situations (choking, severe bleeding, or shock). Do not move a seriously injured child. (Remember ABC)
  – Call 995 if the child is seriously hurt.
Handling common accidents

• If an injury occurs:
  – Give CPR or first aid, if necessary.
  – Contact the parent/emergency contact.
  – Record all injuries on a standard form developed for that purpose. You may want to list on the back of the form the names of all of those who witnessed the injury.
Handling common accidents

• **Abrasions (Scrapes)**
  – Wash abrasion with soap and water.
  – Allow to dry.
  – Cover with a sterile nonstick bandaid or dressing.
  – Notify parents

• **Bruises**
  – Apply cold compresses to fresh bruises for the first 15 to 30 minutes.
  – Note: A child with bruises in unusual locations should be evaluated for child abuse.
Handling common accidents

RICE Therapy for Sprain

- **Rest** – immobilize the injured part
- **Ice**
- **Compression** - Bandage
- **Elevation**
Handling common accidents

• **Bleeding (External):**
  
  – For small wounds, apply direct pressure with a gauze pad for 10-15 minutes. (Use gloves.)
  
  – If bleeding continues or is serious, apply a large pressure dressing and call 995 immediately.
Handling common accidents

- **Tooth (Broken)**
  - Rinse dirt from the injured area with warm water.
  - Place cold compresses over the face in the area of the injury.
  - Locate and save any tooth fragments.
  - Call the parent to pick up and take the child and tooth fragments to the dentist IMMEDIATELY.
Handling common accidents

• Tooth (Knocked Out)
  
  – Find the tooth. Handle tooth by the smooth, white portion (crown), not by the root.
  – Rinse the tooth with water, but DO NOT clean it.
  – Place tooth in a cup of milk or water.
  
  Call the parent to pick up and take the child and tooth to the dentist IMMEDIATELY. (Time is critical.)
Handling common accidents

• Burns and Scalds
  – No blisters:
    • Place burned extremity in cold water or cover burned area with cold, wet cloths until pain stops (at least 15 minutes).
  – With blisters:
    • Same as for no blisters. Do not break blisters.

Seek medical attention!
Handling common accidents

1. Suspected fracture
   - **Shoulder or arm**: Use a sling made of a triangular piece of cloth.
Handling common accidents

Choking

- Can’t breathe or talk or turning blue
- Try sweeping out object if visible
- Heimlich maneuver
Handling common accidents

• **Head Injuries**
  – *Keep child lying down.*
  – *Call parents*
  – *Call 995 if the child is:*
    • Behaving abnormally
    • complaining of severe or persistent headache
    • oozing blood or fluid from ears or nose
    • twitching or convulsing
    • unable to move any body part
    • unconscious or drowsy
    • vomiting
Children’s Safety Awareness

• **Childhood injuries**
  - The child
  - Object
  - Environment

• **Situations a/w injury**
  - Hunger/fatigue
  - Illness/stress
  - new environment
  - change in care giver
Children’s Safety Awareness

- Explain reasons behind rules
- Repeat rules each time until he understands that unsafe actions are always unacceptable
- Make it a point to praise child for positive behaviour
Children’s Safety Awareness

- Incorporate safety awareness in your class lessons
  - show them books & pictures with safety messages
- Teach child not to play when eating & vice versa
- Encourage them to chew & swallow before talking & laughing
Children’s Safety Awareness

- Examples
  - Never run onto the road (because you could be hit by a car)
  - Do not play with plastic bags (because you could suffocate yourself)
  - Do not hold sharp/long objects and run at the same time (because you could poke yourself)
  - Do not run when the floor is wet/when you are only wearing socks (because you could slip and fall)
Why injury prevention?

- Injury is a “disease” of public health importance.

- It is considered the most neglected “disease” of modern society.

- Effective prevention decreases health care consumption and costs.

- Injury prevention often costs less than treating injuries
Count the costs of childhood injuries!

- The cost of treatment - paramedic, ED, outpatient and in-patient treatment, surgery, rehabilitation.
- The cost of time off from school.
- The cost of time off from productive work by the parents
- Potential years of lives lost - societal loss
Impact of Injury on Child

- Psychological trauma
  - At the scene: Pain
  - At the Children’s Emergency
    - Anxiety, Procedure, Strange environment

- Specific Sequelae
  - Scarring (wound, burns, scalding)
  - Functional disability (door crush injury of fingers)
  - Poor psychosocial adjustment (burns, disfiguration)
  - Intellectual abnormality, seizure (severe head injury)
Injuries are not accidental or haphazard events! They are predictable, the risk factors are identifiable and interventions are available to prevent and minimize the impact of injuries.