

Injury Prevention Through Childhood

By

Jim Carpenter MD, MPH

Goals

- Discussion about child safety and the Physician role in Anticipatory Guidance
- Data on Child Injury
- Anticipatory Guidance for safety: why and what to say
- Questions

Anticipatory guidance

- Recent lit review: 18 of 20 studies showed positive effects from injury prevention counseling
- 60% of parents report never receiving injury prevention counseling

TIPP

- American Academy of Pediatrics taskforce entitled The Injury Prevention Program
- TIPP components
 - Policy statement saying safety counseling is a priority and standard of care for PCP's
 - Provides counseling schedule which suggests age appropriate topics for each well child visit
 - Materials for PCP's including a Framingham Safety survey as well as info sheets

TIPP too

- TIPP encompasses 11 visits between 0-4yrs.
- Survey to be completed 2, 15, 24 mos. and they allow PCP to tailor counseling
- Topics are: Safety seats, smoke detectors, crib safety, water safety, firearms, pedestrian, play equipment, fall prevention, burn prevention, choking, suffocation prevention, and poisoning prevention

TIPP cost

- Only takes 22 min of PCP's time over 4 years thus adding an avg. of 1.5 min to the WCC visit (estimated as 16min long in 1992)
- Materials from AAP provided at \$1.09 per child

TIPP Benefit

- medical costs saved \$5.50 per visit, \$60 per child, 230 million annually at national level
- Work (wages lost to parents not included) \$15.50 per visit, \$170 per child, 660 million annually
- Quality of Life \$59 per visit, \$650 per child, 2.5 billion annually

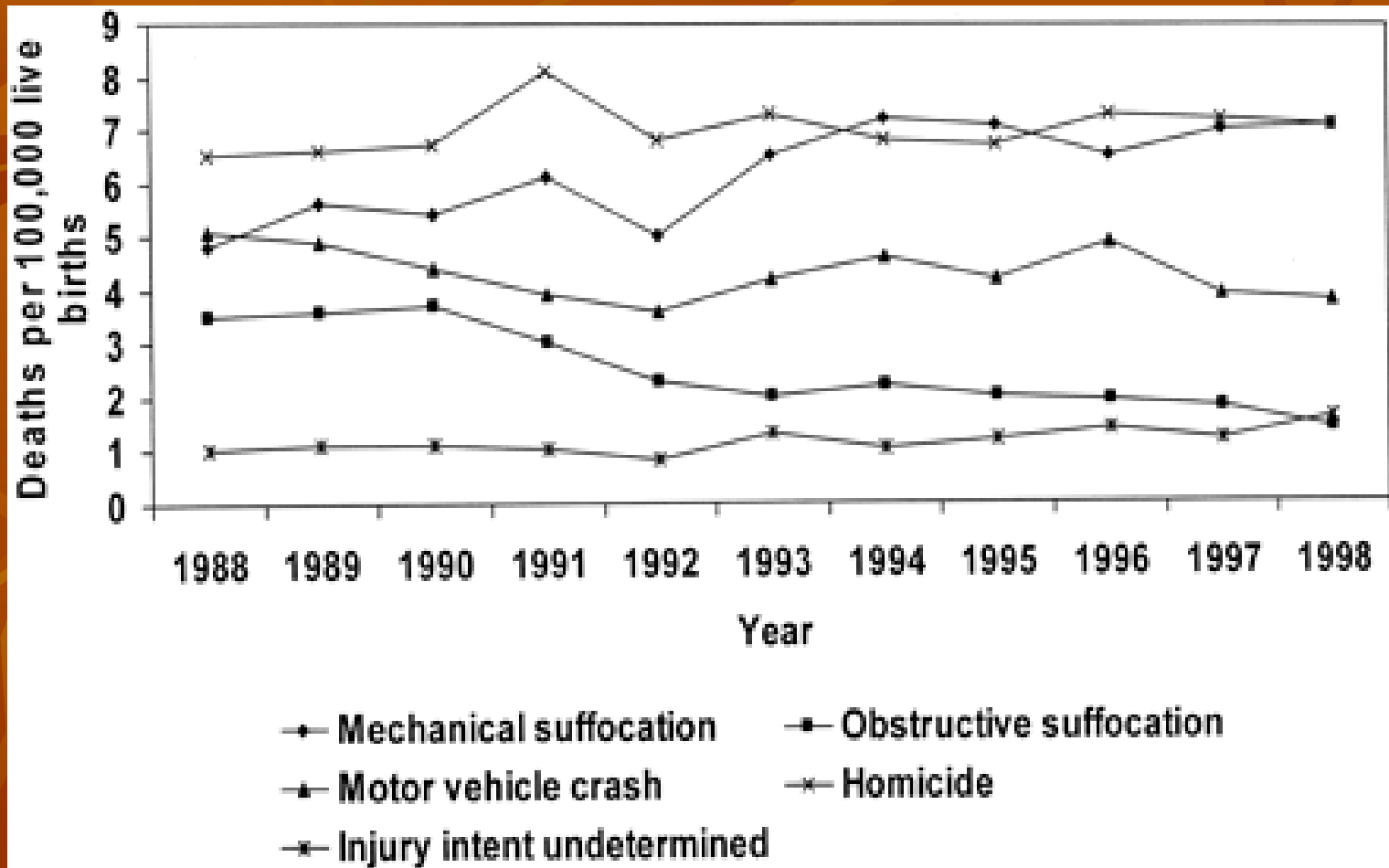
Were did those #'s come from?

- Effectiveness of broad prevention counseling in a suburban office reduced child injury rate by 15.3%. National medical expenditure survey shows avg. injury cost \$394 per 1st 5 yrs of a child's life
- Preventing permanent disabilities and death allows kids to work as adults
- Injury reduces quality of life. Took ratio of QOL cost to wage loss to injured in data from safety seats and smoke detectors yields QOL savings

Why care about injury prevention

- National Health Interview Survey data determined an injury rate of 25/100 kids through 0-21 yrs of age (26.6 million injuries per year) Estimate cost \$347 billion annually

5 leading causes of PNM in US per CDC records 1988-1998



10 Leading Causes of Death by Age Group, United States – 2003

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 5,821	Unintentional Injury 1,717	Unintentional Injury 1,396	Unintentional Injury 1,522	Unintentional Injury 15,272	Unintentional Injury 12,541	Unintentional Injury 16,788	Malignant Neoplasms 49,843	Malignant Neoplasms 65,692	Heart Disease 563,360	Heart Disease 685,069
2	Short Gestation 4,849	Congenital Anomalies 541	Malignant Neoplasms 516	Malignant Neoplasms 560	Homicide 5,360	Suicide 6,065	Malignant Neoplasms 15,508	Heart Disease 37,732	Heart Disease 65,060	Malignant Neoplasms 388,911	Malignant Neoplasms 556,902
3	SIDS 2,162	Malignant Neoplasms 392	Congenital Anomalies 190	Suicide 244	Suicide 3,969	Homicide 4,516	Heart Disease 13,600	Unintentional Injury 15,837	Chronic Low Respiratory Disease 12,077	Cerebrovascular 136,134	Cerebrovascular 157,656
4	Maternal Pregnancy Comp. 1,710	Homicide 375	Homicide 122	Congenital Anomalies 206	Malignant Neoplasms 1,851	Malignant Neoplasms 3,741	Suicide 6,602	Liver Disease 7,468	Diabetes Mellitus 10,731	Chronic Low Respiratory Disease 109,130	Chronic Low Respiratory Disease 128,352
5	Placenta Cord Membranes 1,069	Heart Disease 185	Heart Disease 104	Homicide 202	Heart Disease 1,133	Heart Disease 3,250	HIV 5,340	Suicide 6,481	Cerebrovascular 9,546	Alzheimer's Disease 62,614	Unintentional Injury 199,277
6	Unintentional Injury 945	Influenza & Pneumonia 163	Influenza & Pneumonia 75	Heart Disease 160	Congenital Anomalies 451	HIV 1,588	Homicide 3,110	Cerebrovascular 6,127	Unintentional Injury 9,170	Influenza & Pneumonia 57,670	Diabetes Mellitus 74,219
7	Respiratory Disease 831	Septicemia 85	Septicemia 39	Chronic Low Respiratory Disease 81	Influenza & Pneumonia 224	Diabetes Mellitus 657	Liver Disease 3,020	Diabetes Mellitus 5,658	Liver Disease 6,428	Diabetes Mellitus 54,919	Influenza & Pneumonia 65,163
8	Bacterial Sepsis 772	Perinatal Period 79	Benign Neoplasms 36	Influenza & Pneumonia 72	Cerebrovascular 221	Cerebrovascular 563	Cerebrovascular 2,480	HIV 4,442	Suicide 3,943	Nephritis 35,254	Alzheimer's Disease 63,457
9	Neonatal Hemorrhage 619	Chronic Low Respiratory Disease 55	Chronic Low Respiratory Disease 37	Benign Neoplasms 41	Chronic Low Respiratory Disease 191	Congenital Anomalies 426	Diabetes Mellitus 2,049	Chronic Low Respiratory 3,537	Nephritis 3,606	Unintentional Injury 34,335	Nephritis 42,453
10	Circulatory System Disease 591	Benign Neoplasms 51	Cerebrovascular 29	Cerebrovascular 40	HIV 178	Influenza & Pneumonia 373	Influenza & Pneumonia 562	Viral Hepatitis 2,259	Septicemia 3,651	Septicemia 26,445	Septicemia 34,069

Source: National Vital Statistics System, National Center for Health Statistics, CDC.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

National Estimates of the 10 Leading Causes of Nonfatal Injuries Treated in Hospital Emergency Departments, United States, 2004

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Fall 128,281	Unintentional Fall 888,995	Unintentional Fall 878,704	Unintentional Fall 868,589	Unintentional Struck by/Against 980,060	Unintentional Fall 762,703	Unintentional Fall 816,521	Unintentional Fall 791,813	Unintentional Fall 607,041	Unintentional Fall 1,850,848	Unintentional Fall 8,058,458
2	Unintentional Struck by/Against 35,760	Unintentional Struck by/Against 368,104	Unintentional Struck by/Against 404,124	Unintentional Struck by/Against 583,752	Unintentional MV-Occupant 911,021	Unintentional Overexertion 673,076	Unintentional Overexertion 646,508	Unintentional Overexertion 423,682	Unintentional Struck by/Against 200,708	Unintentional Struck by/Against 214,235	Unintentional Struck by/Against 4,430,171
3	Unintentional Other Bite/Sling 12,753	Unintentional Other Bite/Sling 145,001	Unintentional Cut/Pierce 115,886	Unintentional Overexertion 272,797	Unintentional Fall 869,363	Unintentional Struck by/Against 668,346	Unintentional Struck by/Against 575,089	Unintentional Struck by/Against 393,861	Unintentional Overexertion 200,451	Unintentional MV-Occupant 185,779	Unintentional Overexertion 3,279,383
4	Unintentional Fire/Burn 11,372	Unintentional Foreign Body 115,084	Unintentional Pedal Cyclist 101,891	Unintentional Cut/Pierce 155,040	Unintentional Overexertion 739,741	Unintentional MV-Occupant 812,446	Unintentional MV-Occupant 501,564	Unintentional MV-Occupant 383,728	Unintentional MV-Occupant 157,298	Unintentional Overexertion 167,395	Unintentional MV-Occupant 3,000,888
5	Unintentional Foreign Body 9,767	Unintentional Cut/Pierce 86,767	Unintentional Other Bite/Sling 93,317	Unintentional Pedal Cyclist 140,063	Unintentional Cut/Pierce 468,896	Unintentional Cut/Pierce 440,900	Unintentional Cut/Pierce 398,151	Unintentional Cut/Pierce 296,883	Unintentional Cut/Pierce 154,110	Unintentional Cut/Pierce 122,162	Unintentional Cut/Pierce 2,285,151
6	Unintentional Other Specified 7,879	Unintentional Overexertion 76,876	Unintentional MV-Occupant 74,395	Other Assault* Struck by/Against 116,670	Other Assault* Struck by/Against 466,700	Other Assault* Struck by/Against 279,583	Other Assault* Struck by/Against 224,653	Unintentional Other Specified 149,760	Unintentional Other Bite/Sling 68,461	Unintentional Other Bite/Sling 74,556	Other Assault* Struck by/Against 1,314,436
7	Unintentional Inhalation/Suffocation 7,801	Unintentional Fire/Burn 57,728	Unintentional Overexertion 73,980	Unintentional MV-Occupant 99,333	Unintentional Other Bite/Sling 184,493	Unintentional Other Bite/Sling 173,843	Unintentional Other Specified 176,427	Other Assault* Struck by/Against 118,537	Unintentional Other Specified 59,121	Unintentional Poisoning 61,888	Unintentional Other Bite/Sling 1,103,257
8	Unintentional MV-Occupant 6,992	Unintentional Other Specified 49,446	Unintentional Foreign Body 68,303	Unintentional Unknown/Unspecified 55,311	Unintentional Other Specified 158,451	Unintentional Other Specified 142,385	Unintentional Other Bite/Sling 153,531	Unintentional Other Bite/Sling 117,186	Unintentional Poisoning 39,802	Unintentional Other Transport 47,822	Unintentional Other Specified 820,676
9	Unintentional Cut/Pierce 5,102	Unintentional Poisoning 47,402	Unintentional Dog Bite 52,666	Unintentional Other Transport 70,429	Unintentional Unknown/Unspecified 142,089	Unintentional Other Transport 102,175	Unintentional Poisoning 118,140	Unintentional Poisoning 92,787	Unintentional Other Transport 33,866	Unintentional Unknown/Unspecified 40,910	Unintentional Other Transport 523,846
10	Unintentional Poisoning 5,814	Unintentional Unknown/Unspecified 47,078	Unintentional Other Transport 49,071	Unintentional Other Bite/Sling 70,286	Unintentional Other Transport 126,800	Unintentional Foreign Body 89,096	Unintentional Foreign Body 86,079	Unintentional Other Transport 67,640	Other Assault* Struck by/Against 33,257	Unintentional Other Specified 37,148	Unintentional Foreign Body 608,483

* The "Other Assault" category includes all assaults that are not classified as sexual assault. It represents the majority of assaults.

Source: National Electronic Injury Surveillance System—All Injury Program operated by the U. S. Consumer Product Safety Commission.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

10 Leading Causes of Injury Death by Age Group Highlighting Unintentional Injury Deaths, United States – 2003

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 619	Unintentional MV Traffic 602	Unintentional MV Traffic 597	Unintentional MV Traffic 911	Unintentional MV Traffic 10,735	Unintentional MV Traffic 6,875	Unintentional MV Traffic 6,780	Unintentional MV Traffic 5,876	Unintentional MV Traffic 3,824	Unintentional Fall 15,701	Unintentional MV Traffic 43,340
2	Unintentional MV Traffic 144	Unintentional Drowning 496	Unintentional Fireburn 137	Suicide Suffocation 162	Homicide Firearm 4,410	Homicide Firearm 3,540	Unintentional Poisoning 6,230	Unintentional Poisoning 5,434	Suicide Firearm 2,317	Unintentional MV Traffic 7,279	Unintentional Poisoning 19,457
3	Homicide Unspecified 135	Unintentional Fireburn 229	Unintentional Drowning 125	Unintentional Drowning 142	Suicide Firearm 2,075	Unintentional Poisoning 3,435	Suicide Firearm 2,827	Suicide Firearm 3,279	Unintentional Poisoning 1,370	Unintentional Unspecified 5,344	Unintentional Fall 17,225
4	Homicide Other Spec., Classifiable 100	Unintentional Suffocation 169	Unintentional Other Land Transport 60	Homicide Firearm 139	Unintentional Poisoning 1,999	Suicide Firearm 2,381	Homicide Firearm 1,541	Suicide Poisoning 1,567	Unintentional Fall 1,220	Suicide Firearm 3,854	Suicide Firearm 16,507
5	Unintentional Drowning 65	Homicide Unspecified 153	Homicide Firearm 45	Unintentional Other Land Transport 81	Suicide Suffocation 1,348	Suicide Suffocation 1,479	Suicide Poisoning 1,532	Homicide Firearm 1,110	Suicide Poisoning 711	Unintentional Suffocation 3,175	Homicide Firearm 11,920
6	Homicide Suffocation 39	Unintentional Pedestrian, Other 116	Unintentional Suffocation 37	Unintentional Fireburn 78	Unintentional Drowning 667	Suicide Poisoning 797	Suicide Suffocation 1,531	Suicide Suffocation 1,085	Suicide Suffocation 496	Adverse Effects 1,858	Suicide Suffocation 5,636
7	Undetermined Suffocation 36	Homicide Other Spec., Classifiable 84	Unintentional Other Transport 21	Suicide Firearm 73	Homicide Cut/pierce 471	Undetermined Poisoning 656	Undetermined Poisoning 1,320	Unintentional Fall 1,043	Unintentional Suffocation 446	Unintentional Fireburn 1,183	Unintentional Unspecified 6,530
8	Unintentional Fireburn 32	Unintentional Fall 54	Homicide Unspecified 15	Unintentional Suffocation 44	Undetermined Poisoning 368	Homicide Cut/pierce 486	Unintentional Fall 636	Undetermined Poisoning 888	Unintentional Fireburn 400	Unintentional Poisoning 653	Unintentional Suffocation 5,579
9	Unintentional Natural Environment 20	Unintentional Poisoning 49	Unintentional Poisoning 18	Unintentional Poisoning 43	Unintentional Other Land Transport 355	Unintentional Drowning 356	Homicide Cut/pierce 479	Unintentional Fireburn 936	Homicide Firearm 384	Unintentional Other Spec., NEC 556	Suicide Poisoning 5,462
10	Unintentional Poisoning 20	Homicide Firearm 40	Unintentional Natural Environment 17	Unintentional Firearm 35	Suicide Poisoning 310	Unintentional Fall 285	Unintentional Drowning 462	Unintentional Suffocation 430	Adverse Effects 380	Suicide Suffocation 539	Unintentional Poisoning 3,700

Source: National Vital Statistics System, National Center for Health Statistics, CDC.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

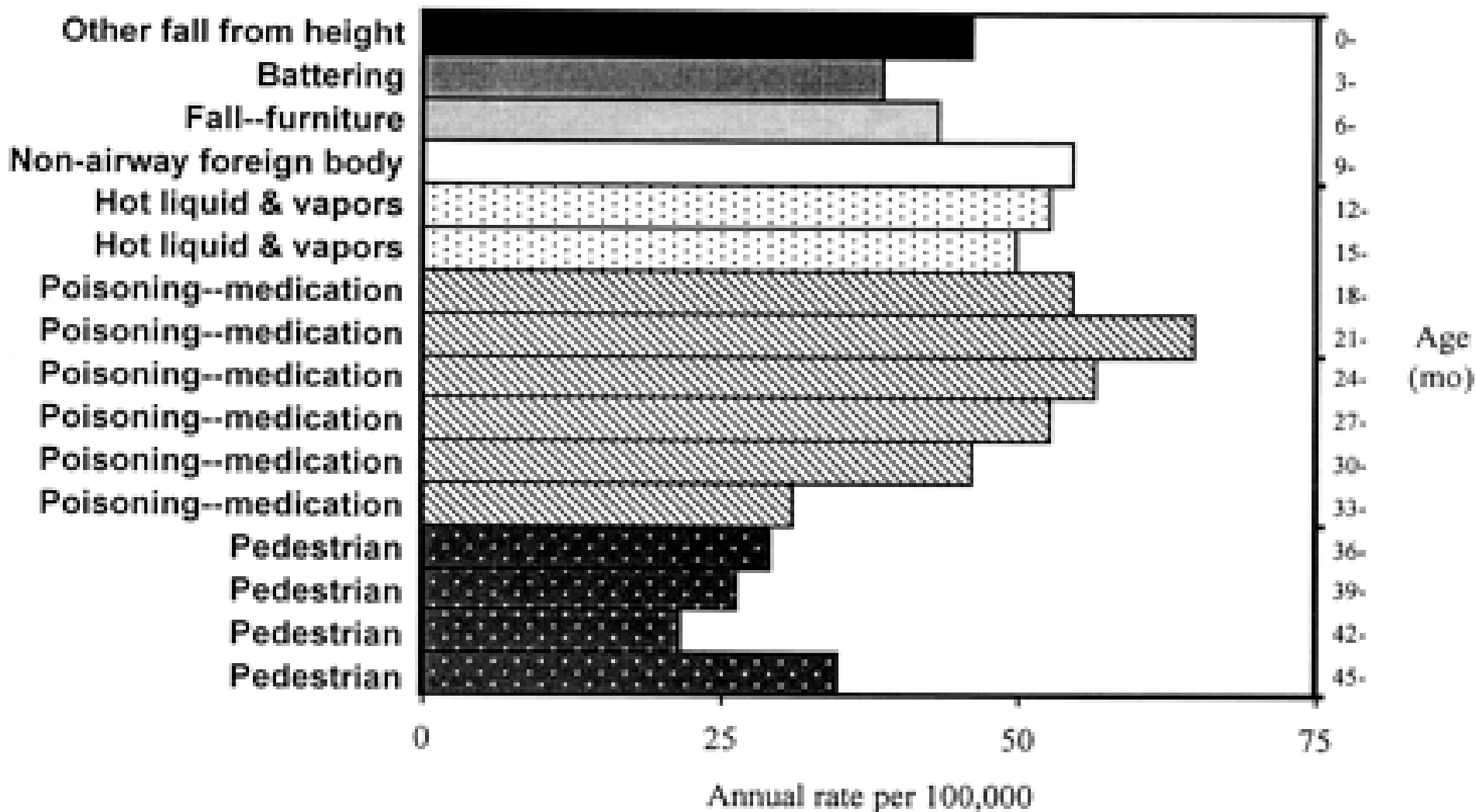
10 Leading Causes of Injury Death by Age Group Highlighting Violence-Related Injury Deaths, United States – 2003

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 619	Unintentional MV Traffic 902	Unintentional MV Traffic 597	Unintentional MV Traffic 911	Unintentional MV Traffic 10,736	Unintentional MV Traffic 6,675	Unintentional MV Traffic 6,780	Unintentional MV Traffic 5,876	Unintentional MV Traffic 3,824	Unintentional Fall 13,701	Unintentional MV Traffic 43,340
2	Unintentional MV Traffic 144	Unintentional Drowning 466	Unintentional Fire/burn 137	Suicide Suffocation 162	Homicide Firearm 4,410	Homicide Firearm 3,510	Unintentional Poisoning 6,230	Unintentional Poisoning 5,434	Suicide Firearm 2,317	Unintentional MV Traffic 7,278	Unintentional Poisoning 19,457
3	Homicide Unspecified 136	Unintentional Fire/burn 229	Unintentional Drowning 126	Unintentional Drowning 142	Suicide Firearm 2,075	Unintentional Poisoning 3,435	Suicide Firearm 2,927	Suicide Firearm 3,279	Unintentional Poisoning 1,370	Unintentional Unspecified 5,344	Unintentional Fall 17,229
4	Homicide Other Spec., Classifiable 100	Unintentional Suffocation 169	Unintentional Other Land Transport 50	Homicide Firearm 139	Unintentional Poisoning 1,999	Suicide Firearm 2,381	Homicide Firearm 1,541	Suicide Poisoning 1,587	Unintentional Fall 1,220	Suicide Firearm 3,854	Suicide Firearm 18,507
5	Unintentional Drowning 58	Homicide Unspecified 163	Homicide Firearm 46	Unintentional Other Land Transport 81	Suicide Suffocation 1,848	Suicide Suffocation 1,479	Suicide Poisoning 1,532	Homicide Firearm 1,110	Suicide Poisoning 711	Unintentional Suffocation 3,176	Homicide Firearm 11,920
6	Homicide Suffocation 39	Unintentional Pedestrian, Other 116	Unintentional Suffocation 37	Unintentional Fire/burn 78	Unintentional Drowning 587	Suicide Poisoning 797	Suicide Suffocation 1,531	Suicide Suffocation 1,066	Suicide Suffocation 496	Adverse Effects 1,858	Suicide Suffocation 6,835
7	Undetermined Suffocation 38	Homicide Other Spec., Classifiable 84	Unintentional Other Transport 21	Suicide Firearm 73	Homicide Cut/pierce 471	Undetermined Poisoning 656	Undetermined Poisoning 1,320	Unintentional Fall 1,043	Unintentional Suffocation 445	Unintentional Fire/burn 1,183	Unintentional Unspecified 5,630
8	Unintentional Fire/burn 32	Unintentional Fall 54	Homicide Unspecified 18	Unintentional Suffocation 44	Undetermined Poisoning 388	Homicide Cut/pierce 466	Unintentional Fall 608	Undetermined Poisoning 888	Unintentional Fire/burn 400	Unintentional Poisoning 863	Unintentional Suffocation 5,579
9	Unintentional Natural Environment 20	Unintentional Poisoning 49	Unintentional Poisoning 18	Unintentional Poisoning 43	Unintentional Other Land Transport 355	Unintentional Drowning 358	Homicide Cut/pierce 479	Unintentional Fire/burn 536	Homicide Firearm 394	Unintentional Other Spec., NEC 556	Suicide Poisoning 5,462
10	Unintentional Poisoning 20	Homicide Firearm 40	Unintentional Natural Environment 17	Unintentional Firearm 36	Suicide Poisoning 310	Unintentional Fall 285	Unintentional Drowning 482	Unintentional Suffocation 430	Adverse Effects 380	Suicide Suffocation 539	Unintentional Poisoning 3,700

Source: National Vital Statistics System, National Center for Health Statistics, CDC.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

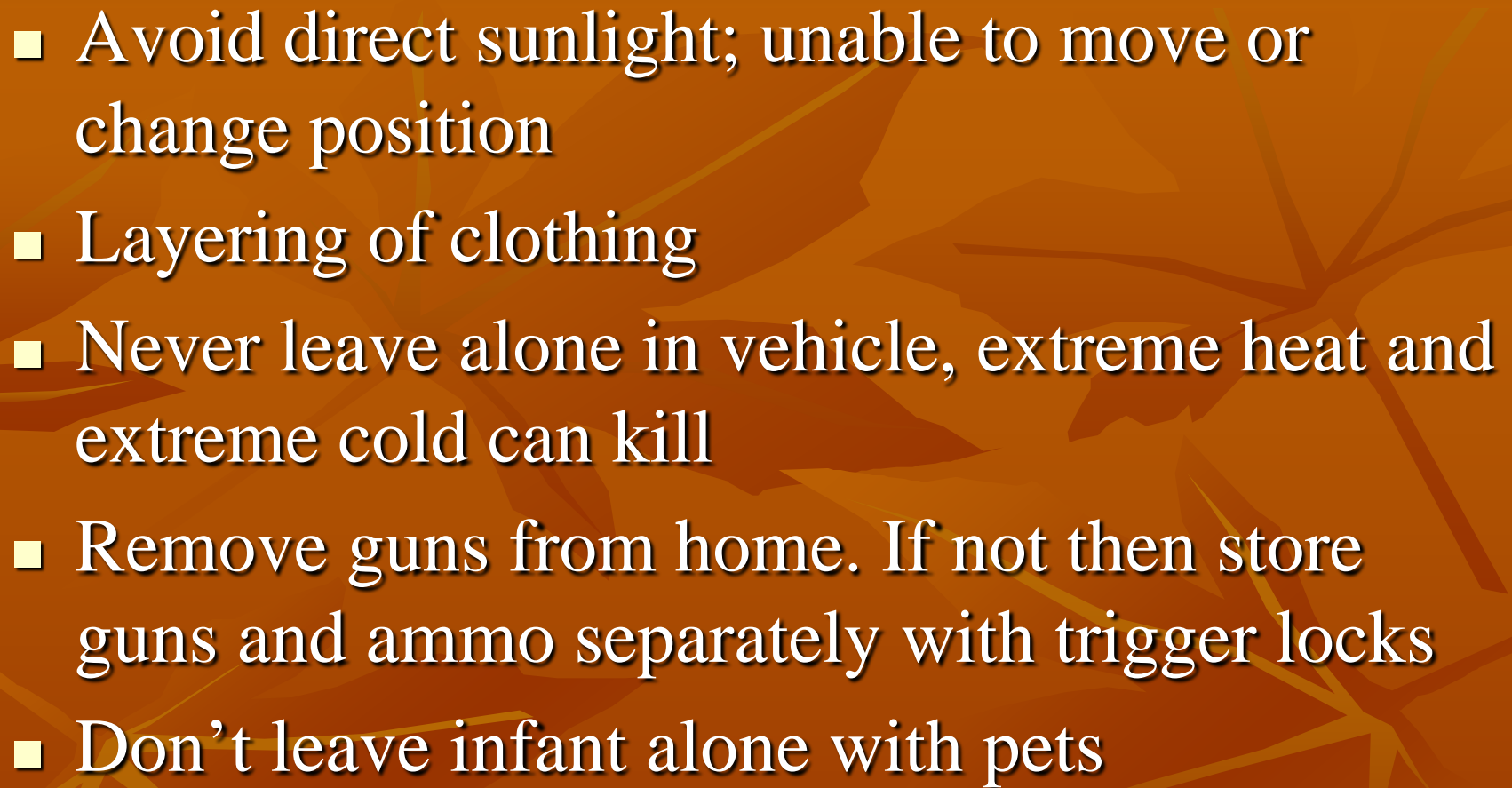
Annual rate of the leading specific cause of injury hospitalization and death / 100K by 3 month intervals 0-4 yrs CA 1996-1998





Newborn Safety

- Sleep position and location
- Microwave heating
- Animals/pets
- Crib
- Water temperature
- Car Seat

- 
- The background of the slide is a solid orange-brown color, overlaid with a pattern of stylized, semi-transparent autumn leaves in various shades of brown and orange. The leaves are scattered across the frame, creating a seasonal aesthetic.
- Avoid direct sunlight; unable to move or change position
 - Layering of clothing
 - Never leave alone in vehicle, extreme heat and extreme cold can kill
 - Remove guns from home. If not then store guns and ammo separately with trigger locks
 - Don't leave infant alone with pets

Post neonatal Deaths

- From 1988-1998 12,209 post neonatal (28-364 days of age) deaths occurred
- avg. 1110/year
- Majority unintentional injury due to
 - mechanical suffocation i.e. wedging, oronasal obstruction by a plastic bag, overlying in bed, falling earth, lack of air in enclosed space, and accidental hanging
 - obstructive suffocation from aspiration
 - motor vehicle crash related deaths

Car Seat Anticipatory Guidance

- In 1994, 673 kids less than 5 yrs of age killed, 362 unrestrained.
- Rear facing until 20lbs and 1 yr of age to decrease risk of cervical spine injury
- Back seat only
- Infant seats should not have shields, abd pads, or arm rest that can directly contact face
- In rear facing, shoulder straps should be lower than infants shoulders, clip should be mid sternum

Car seat continued

- If child's head leans forward in rear facing car seat, chair should be reclined until head against back of chair
- Convertible seat at 20 lbs and greater than 12 mos. Should be semi upright and forward facing (ears below top of back of seat and shoulders below the seat strap slots)
- Booster seat to position lap and shoulder strap. Lap across hips and shoulder strap below neck

2-6 Weeks

- Car Seats
- Crib safety
- Sleep Position
- Sibling jealousy
- Smoke detectors
- Bathwater
- Rolling over

- Infant should always sleep on back to reduce risk of SIDS
- Avoid sofa, soft mattress, waterbeds, comforters, crib pads, pillows, quilts.
- Co-sleeping (bed-sharing) increase risk of SIDS and suffocation by 20% or more. Parents should not smoke, drink, take sedating meds
- Non skid surface for baths
- Hot water heater should be at 120 degrees

- Never leave new infant alone with sibling under 7. Observe interactions. Children under five should not lift a younger sibling
- Smoke detectors should be on each floor of the house. Check batteries monthly. Change batteries yearly(landlords are responsible in many municipalities)

Hot water and burns

- Hot water of 140F takes 6 sec for full thickness burns in adult
- Hot water 150 takes 2 seconds for full thickness in adults
- 120 takes 2 min to achieve full thickness in adult

1.5 to 4 Months

- Baby Walkers
- Toys
- Rolling/falls
- Infant seat safety
- Cribs
- Car Safety

- Crib slats- should be narrower than 2 and 3/8th inch(soda can)
- 1994 AAP recommend ban on walkers, CPSC reports more injuries than any other juvenile device. Decrease visual feedback
- Babies can wiggle, kick, scoot never leave alone on surface. Pillow barriers do not prevent falls and may cause suffocation
- No hot liquids and baby in your arms
- If baby gets burned, cool water, loose bandages, call MD

Falls

- Leading cause of nonfatal injury
- Fatalities usually from heights >2 stories. If not fatal 1/3 cuts and abrasions, fracture most common serious injury
- Fall less than two stories resulting in injury usually head first onto hard surface from caregiver's arms or impact of caregiver onto infant

4-6 months

- Walkers
- Toys
- Infant Seats
- Rolling
- Car Seats
- Choking therapy

- Toys with small parts or that fit into a toilet paper roll pose a choking hazard
- Look for age appropriateness labeling on toys and follow it(ie. Not for use by < 3yo)
- Hard pieces of food are choking risks
- Gates to block stairs
- Encourage BLS, no blind finger sweep, back blows
- Pad coffee table and sharp corners

6-9 Months

- Walkers
- Toys/Choking
- Drowning
- Stairs/gates
- Crawling
- Child proof the house
- Hand to mouth activity
- Plug covers
- Burns

- Walkers let kids get to dangerous areas, head and neck protrude unprotected for falls, can pull objects down on themselves
- Playpen/crib/ high chair are safe places while you are cooking
- Kids this age love water, leave no standing water, close door to bathroom or have toilet lock to prevent drowning
- Hand to mouth exploration leave no small objects or poisonous items within reach
- Crawl through house, great perspective to help child proofing

9-12 months

- Burns
- Car seats
- Bath safety
- Poisoning
- Child proofing
- Kitchen safety
- Aspiration risks
- Hand to mouth activity
- Stairs/gates

- Pedestrian injuries: 1-2 yrs old most likely backed over in driveway
- Highest over all rate of injury 495/100K in California in 1997
- Never leave alone in bath, even with bath ring, do not leave in reach of fixtures
- Post poison control number(1-800-876-4766 or 1-800-8POISON)
- Lock away all med and cleaners (remind other care givers as well). Kitchen, bathroom, purses.
- Turn handles of pots inwards, use back burners, kids in playpen or high chair, not under foot, 3 foot safety zone from stove

15-18 Months

- Bathtub safety
- Electrical cords
- Smoke detectors
- Falling/tripping
- Hot water temp
- Climbing

- Most likely fatal fall is from a windows >2 stories
- Remove furniture from windows, install operable window guards
- Virtually all kids less than 6 can slip through 6 inch railing opening (none older than 1 can get through 4 inch opening)
- Unplug appliances when not in use. Keep cords tied back and out of reach
- Kids love to climb to demonstrate new abilities and reach enticing objects. Anchor book shelves. Keep chairs away from counters etc

18 –24 Months

- Electric wires
- Electric outlets
- Car seats
- Climbing
- Bath time
- Pica/lead

- Ask about lead in home. CBC and Lead level. Sooner if hx of lead exposure. Discourage play near old paint. Remember increased risk with remodeling, car repair, Greta, Azarcon
- Outlet plugs for higher outlets. Consider covers that require better fine motor and more strength

24-30 Months

- Car seats
- Electric outlets
- Knives/guns
- Locks on doors and cabinets
- Car safety

- Second highest rate of injury in California in 1997 387/100K
- Re-iterate car seat safety. Forward facing. If out growing then booster seat.
- Locks on sliding doors and window guards. Consider door jam bumper guards

30-36 Months

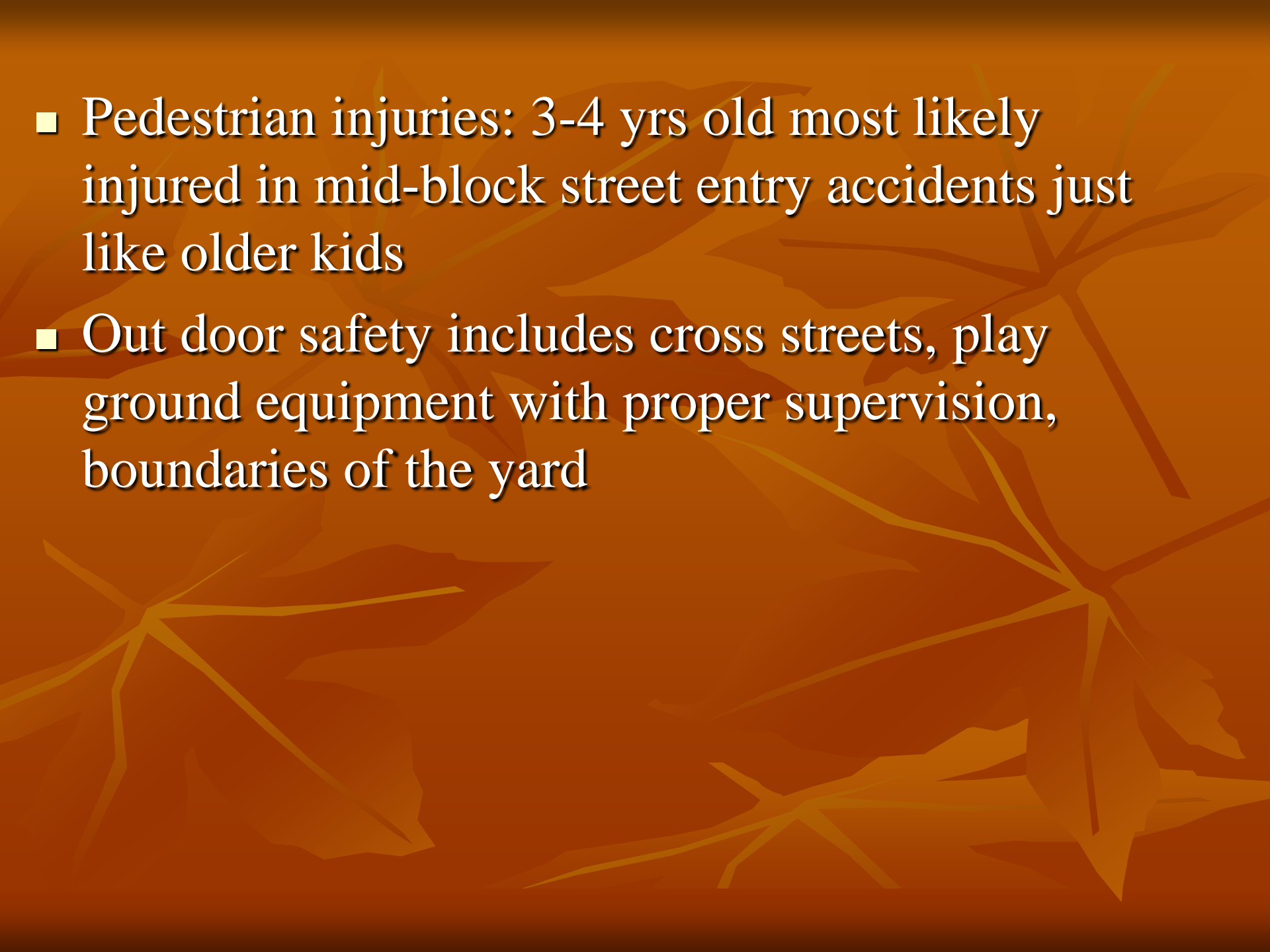
Car seats

Electrical outlets

Locks on doors

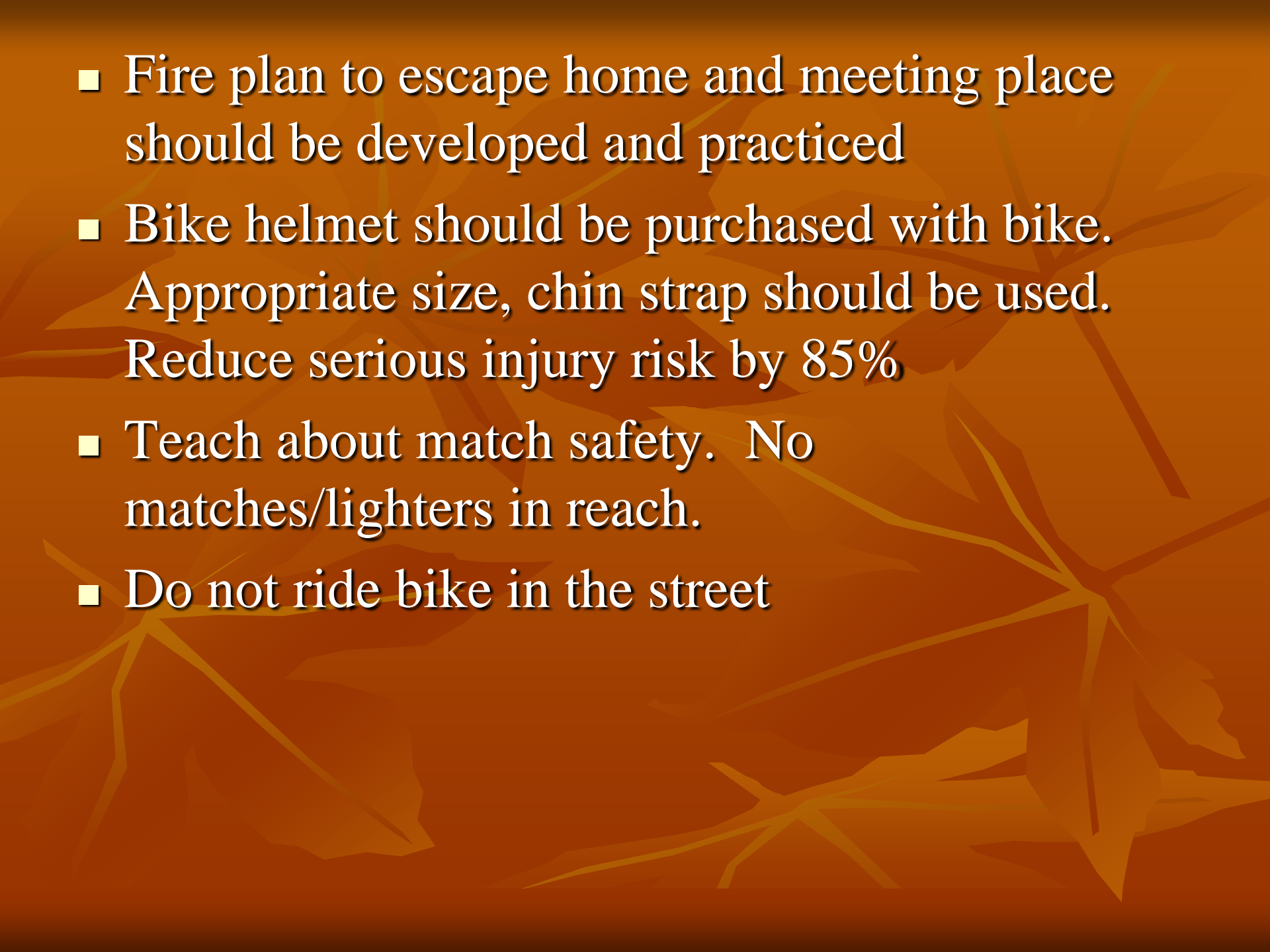
Knives/guns

- Smoke detectors
- Outdoor safety
- Poisoning
- Water temperature

- 
- The background of the slide is a solid orange-brown color, overlaid with a pattern of stylized, semi-transparent autumn leaves in various shades of brown and orange. The leaves are scattered across the frame, with some showing prominent veins.
- Pedestrian injuries: 3-4 yrs old most likely injured in mid-block street entry accidents just like older kids
 - Out door safety includes cross streets, play ground equipment with proper supervision, boundaries of the yard

4 year old

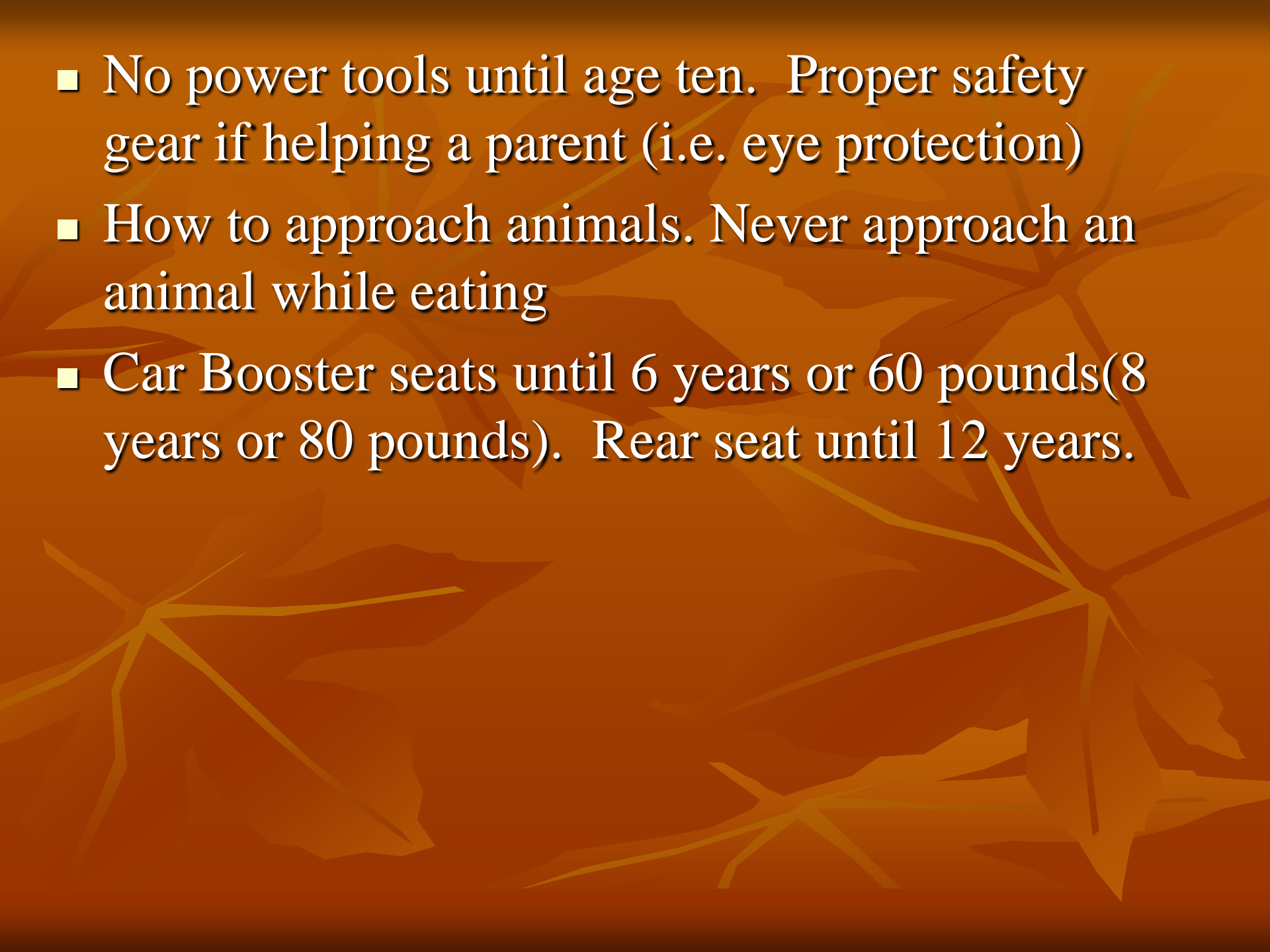
- Bike helmets
- Electrical outlets
- Fire lighting
- Smoke detectors
- Poisoning
- Outdoor safety

- 
- Fire plan to escape home and meeting place should be developed and practiced
 - Bike helmet should be purchased with bike. Appropriate size, chin strap should be used. Reduce serious injury risk by 85%
 - Teach about match safety. No matches/lighters in reach.
 - Do not ride bike in the street

5-6 Year Old

- Seatbelts
- Electrical tools
- Bike helmet
- Guns
- Animal safety
- Name and Address
- Swimming
- Lock up dangerous items
- Street safety

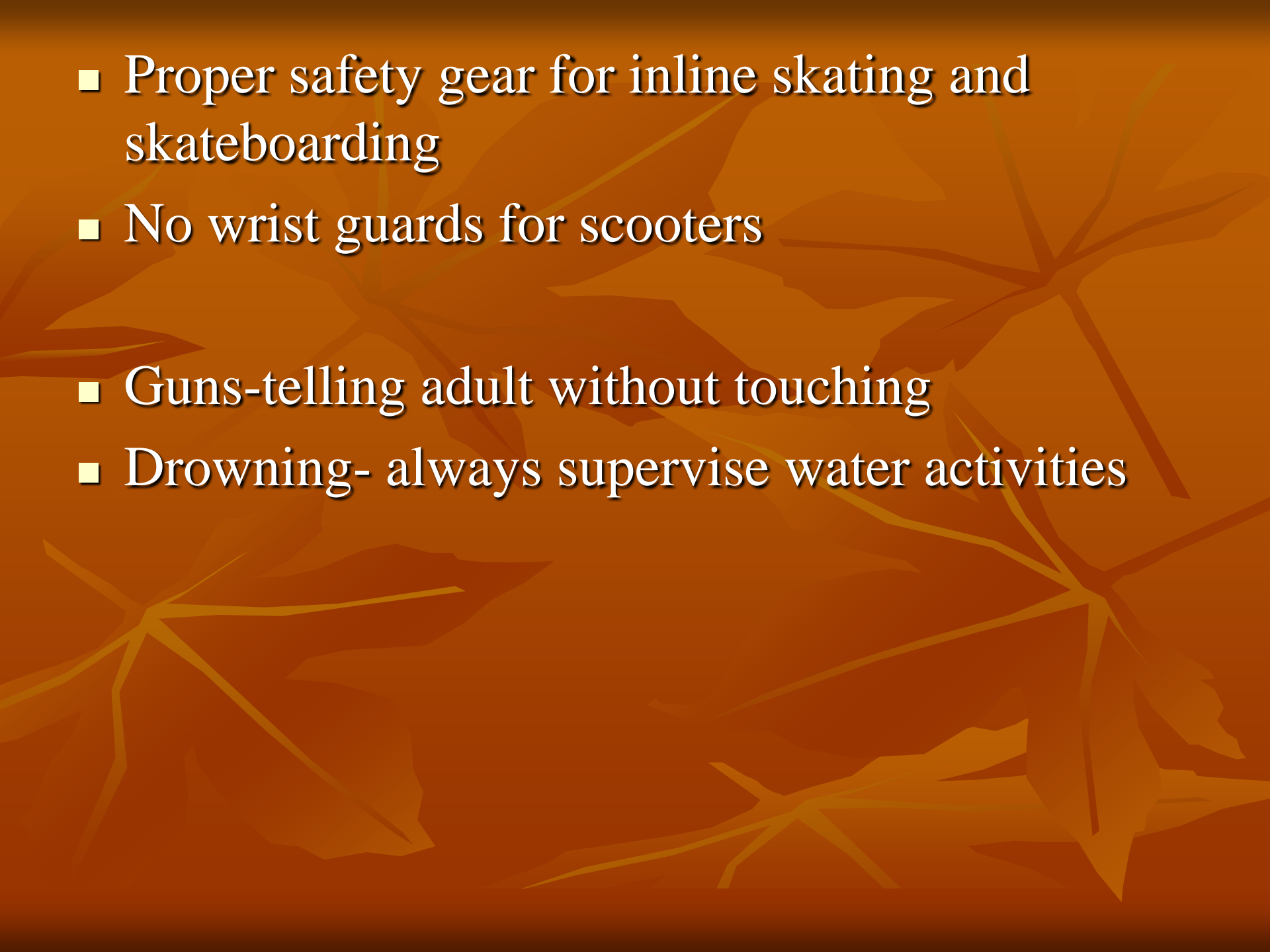
- Street crossing safety, no crossing without adult
- Avoid strangers. Kids should be able to memorize name, address, phone (cell), parent's name
- Peak age for injury from falls related to playground equipment 35/100K in CA 1997
- Also balconies and fire escapes are fall dangers. Boys 1.5:1 girls for rate of falls
- Appropriate age for swimming lessons

- 
- No power tools until age ten. Proper safety gear if helping a parent (i.e. eye protection)
 - How to approach animals. Never approach an animal while eating
 - Car Booster seats until 6 years or 60 pounds(8 years or 80 pounds). Rear seat until 12 years.

7-8 year old

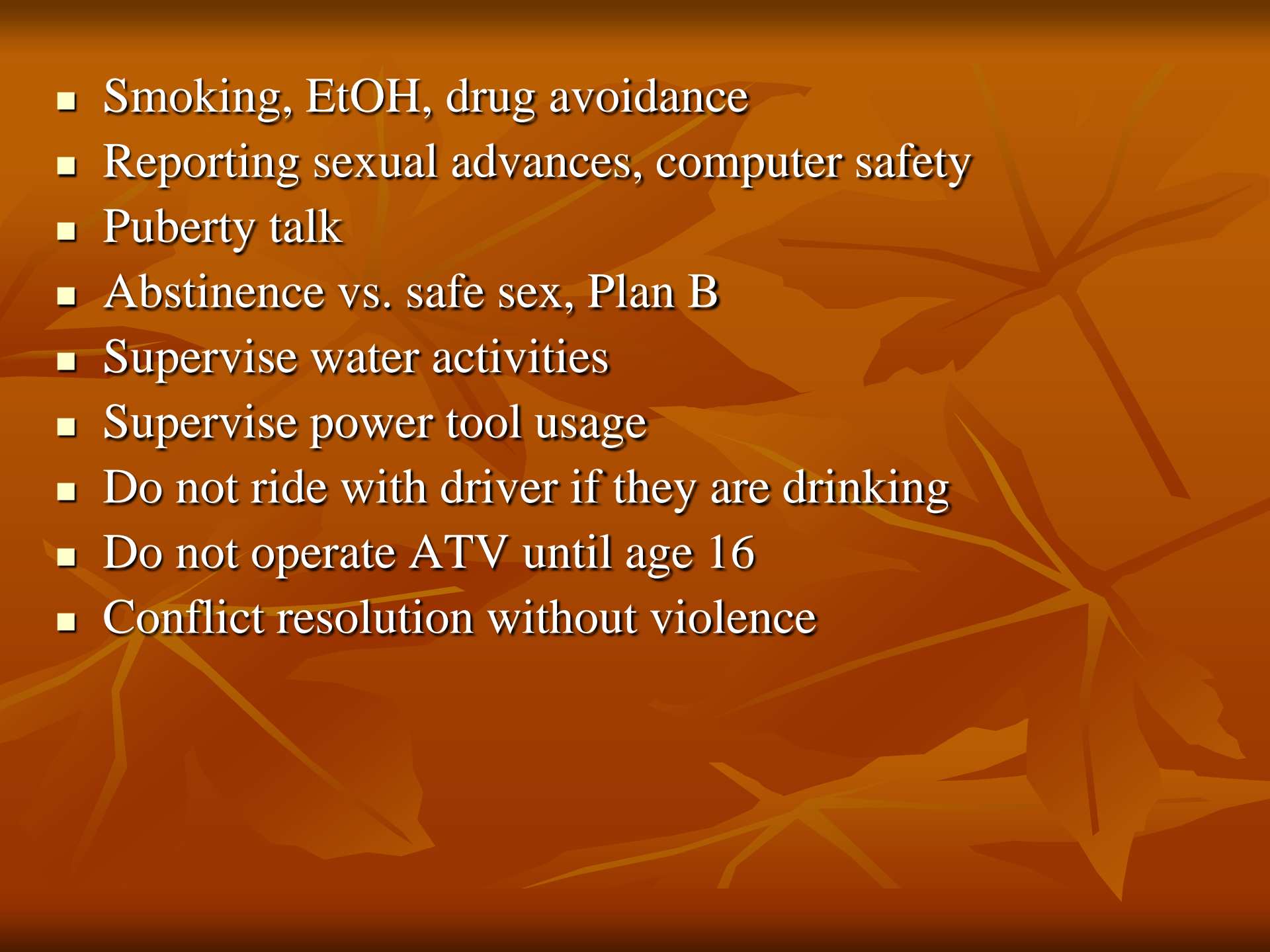
- Bike/skating
- Skateboards
- Seatbelts
- Learn to swim
- Guns

- Bike/Skating
- Skateboards
- Seatbelts
- Smoke detectors
- Learn to swim
- Guns
- Drowning

- 
- Proper safety gear for inline skating and skateboarding
 - No wrist guards for scooters
 - Guns-telling adult without touching
 - Drowning- always supervise water activities

10-13 Years Old

- Bike/Skating/ Skateboards
- Seatbelts
- Learn to swim
- Guns/Knives

- 
- Smoking, EtOH, drug avoidance
 - Reporting sexual advances, computer safety
 - Puberty talk
 - Abstinence vs. safe sex, Plan B
 - Supervise water activities
 - Supervise power tool usage
 - Do not ride with driver if they are drinking
 - Do not operate ATV until age 16
 - Conflict resolution without violence

Adolescent 14-21

- Violence
- Seatbelts
- Guns

14-15 Years Old

- Protective gear for sports
- Illicit drug use and risk of OD
- Driving deaths and drowning risk with EtOH
- Violence- Gun deaths reach 25/100K at age 14 in CA. 50/1000K at 15 yrs, peaks at 110 at 18 yrs for 1997.
- No one under 16 should operate personal water craft

16-18 Years Old

- Seatbelts
- Driving safety-markedly higher rate of fatal crashes, risk increases further with increasing passengers
- Drugs
- Safe sex and date rape, Plan B
- California 1997 18 yr olds with highest rate of injury per year by age 732/100K

Summary

- Take the opportunity to counsel about safety to help prevent injury, disability, and medical costs
- Prompts are great, but only if they actually help you
- Car safety
- Fall risks
- Poisonings

Bibliography

- Agran P, Anderson C, Winn D, Trent R, Walton-Hayes L, Thayer S. Rates of pediatric injuries by 3-month intervals for children 0-3 years of age. *Pediatrics* 2003;111:6
- Agran P, Winn D, Anderson C, Trent R, Walton Hayes L. Rates of pediatric adolescent injuries by year of age. *Pediatrics*. 2001;108:3
- Committee on Injury and Poison Prevention AAP et. al. Falls from heights: windows, roofs, and balconies. *Pediatrics*. 2001;107:5
- Committee on Injury and Poison Prevention AAP et. al. Selecting and using the most appropriate car safety seats for growing children: guidelines for counseling parents. *Pediatrics*. 1996;97:5
- Miller T, Galbraith M. Injury prevention counseling by pediatricians: a benefit-cost comparison. *Pediatrics*. 1995;96:1
- Shrivastava L, Shrivastava N. Anticipatory guidance. *Clinics in Family Practice*. 2003;5:6
- Tomashek K, Hsia J, Iyasu S. Trends in post neonatal mortality attributable to injury, united States, 1988-1998. *Pediatrics*. 2003;111:5
- Website: www.aap.org/family/tippmain.htm

Acknowledgement

- This talk was modified from “Anticipating Safety” by Matthew Kraus MD

Questions?