

Subdomain [population of interest]	Pass Criteria	Statistics about Hazards	Housing inspection recommendation	Cost	
				Product	Labor
Hot water [All]	Hot water is 120 degrees Fahrenheit and below.	<p>According to the U.S. Consumer Product Safety Commission, nearly 3,800 injuries and over 30 deaths occur in the home each year due to hot water burns.^{3,4}</p> <p>In the United States, the annual cost for scald burn deaths and injuries from all causes among children 14 years and younger is about \$44 million. Children younger than 5 years old contribute to 90% of this cost.⁵</p>	<p>Test, adjust, and retest water to ensure water temperature is not above 120 degrees Fahrenheit.</p> <p>Consider installing scald prevention devices.</p>	Thermostatic Mixing Valve (>\$100 per valve) ¹	TMV installation (\$150) ²
				Bathtub thermometer (~\$12) ¹ Candy thermometer (~\$5) ¹	
Bathroom Fall Hazards [Seniors]	Having a permanently affixed non-slip treads/ material, non-slip mat, or non-slip decals in the tub/shower	<p>More than 43,000 children younger than 18 years old are treated in an emergency room each year after a bathroom or shower related injury. Slipping and falling caused 81 percent of all injuries.⁶</p> <p>For people aged 15 years old or greater, falls are responsible for 81% of all bathroom injuries.⁷</p>	Install a grab bar and non-slip surface in all tubs/showers.	\$40 ¹	
	Having a grab bar in the tub/shower	The bathroom was found to be the most hazardous room in the home for falls (previously thought to be second behind the kitchen). ⁸			

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Fire Escape [All]	Having at least two exits in the room	80.7% of all fire deaths, occurred in the home, this is an increase of 6.8% compared to 2015. ⁹ There was a civilian fire death every 2 hours and 35 minutes and a civilian fire injury every 35 minutes 54 seconds in 2016. ⁹	Make sure that every room in the home has at least 2 exits.	N/A	
Crowding [All]	No furniture in the room or placement/ amount of items allows for freedom of movement	In 2016, there were an estimated 352,000 reported home structure fires and 2,735 associated civilian deaths, and 14,650 civilian injuries in the United States. ⁹ Fire and burn injuries cost about \$7.5 billion each year. ¹⁰	Adjust furniture placement so that no furniture would restrict one from moving around and entering/ exiting the room.	N/A	
	Furniture and other items in the living room are arranged in such a way that you can easily enter/ exit the room				
Electrical Safety Concerns [All]	Power strip has a UL or FM label	Between 2010 and 2014, U.S. municipal fire departments responded to an average of 45,210 home structure fires involving electrical failure or malfunction. These fires caused annual averages of 420 civilian deaths, 1,370 civilian injuries, and \$1.4 billion in direct property damage. ¹¹	Make sure that all electrical outlets and power strips are not presenting any fire hazards, are not overloaded, and have a proper switch and label.	\$10-25/strip \$15-25/outlet ²	\$10-25/strip \$50-75/outlet (or more) ²
	Power strip has a toggle/ switch, breaker or fuse				
	Electrical outlets are not overloaded	Roughly half (57%) of home electrical failure fires from 2010-2014 involved electrical distribution or lighting equipment. Of 31,960 non-confined home structure fires involving electrical distribution or lighting equipment, there were 400 civilian deaths, 1,180 civilian injuries, and \$1.2 billion in direct property damage per year. ¹¹			
	No electrical or extension cords are a fire hazard				

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Electrical Tripping Hazards [All]	No electrical or extension cords are a tripping hazard	An estimated 3,300 residential fires originate from extension cords each year, killing and injuring over 300 people. ¹² More than half of the injuries from tripping over extension cords involved fractures, lacerations, contusions, or sprains. ¹³	Reposition/ rerun electrical cords so they are no longer a tripping hazard.	\$20-60/ ²	\$40-75/ ²
Protruding Nails [All]	No protruding nails/screws in the walls and floors that could cause someone to cut themselves	A query of 2008 NEISS data for children under 18 indicated that there were 31,243 annual injuries associated with protruding nails. ¹⁴	Remove and replace (or hammer in) all protruding nails.	\$0-15/ area ²	\$20-100/ area ²
Tipping Hazards [Children]	No entertainment center 4 feet above the ground is present in the room or if present in this room, it is secured to the wall	An average of 30,700 “falling furniture” injuries are reported annually, 52% involved children. ¹⁵ Each day, more than 40 children younger than 18 years old visit the emergency department for injuries from furniture tip-overs. ¹⁵	Move entertainment centers, bookcases, and TVs to places where they are less than 4 feet above the ground. Secure stove to the wall or cabinet.	Furniture Wall Straps- 2 pack (\$10.00) ¹ Too variable to price ²	Too variable to price ²
	No bookcases are present in the room or if present in this room, it is secured to the wall				
	No flat screen TVs are present in the room or if present in this room, it is secured to the wall				
	No traditional TVs are present in the room or if present in this room, it is secured to the wall				
	Stove must be secured to wall or cabinet/counter				

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Carbon Monoxide Alarm [All]	Having at least one working CO alarm in the home	<p>An average of 439 people died annually during 1999-2004 from unintentional, non-fire related CO poisoning.¹⁶</p> <p>The CDC estimated an average of 20,636 nonfatal, unintentional, and non-fire related CO exposures were seen in the ER each year from 2004-2006.¹⁷</p> <p>CO alarms are one of the most important protective devices for preventing CO exposure and poisoning in the homes.¹⁸</p>	Check/install carbon monoxide alarms in the home.	CO alarm (battery operated) (\$15) ¹	\$25-40 ²
Poison Storage [Children]	All prescription medicines, over-the-counter medicines and household products are locked away	<p>In 2008, over 41,000 people died as a result of poisoning.¹⁹</p> <p>It was noted that in 2008, the number of poisoning deaths exceeded the number of motor vehicle traffic deaths for the first time since at least 1980. Poisoning is now the leading cause of death from injuries in the US, increasing from 3.0 per 100,000 in 1979 to 13.1 per 100,000 in 2012.²⁰</p> <p>91% of unintentional poisoning deaths are caused by drugs, mainly opioid pain medications.²⁰</p>	Check medicine cabinet to make sure all medicines are locked and closed with childproof caps.	Cabinet slide lock (\$2.00 per lock) ¹	
	All prescription and over-the-counter medicines have childproof caps	<p>46.4% of the 2.159 million calls to Poison Help Number in 2016 involved children ages 5 and younger. 85.1% of poisonings occur at home without a visit to the ER or physician.²⁰</p>			

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Interior Stairs Safety [All]	Stairs are perfect and safe. There are no loose or broken steps, damages or uneven surfaces, disrepair or other safety threats?. The risers are not greater than 7.75" in height and are consistent. The treads are not less than 10" in depth & are consistent. Both risers & treads are free from defect. If a runner or carpet covers stairs, it's free from defect.	An estimated 931,886 children aged less than 5 years old were treated for stair-related injuries from 1999 through 2008, averaging 93,189 injuries per year and 46.5 injuries per 10,000 population annually. ²¹	Repair any loose, damaged, or uneven steps.	Stairs are almost never even. Repair defects- \$50-150.	\$65-300.
	At the bottom of the staircase, the right or the left side has an open handrail only or an open with handrail and baluster (guardrails, spindles). The openings of the guardrail are not greater than 4". The Baluster and spindles is secure. The handrail is secure.	About a third of seniors 65 and older fall annually. ²²	Install handrails/guardrails for the staircase. Consider stair gates in homes with young children.	Wall rails \$85-175/ Open rails \$150-250/ All unfinished ²	\$90-175. \$125-200 ²

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Window Safety [Children]	A window stop or guard was present	Every year since 1983, an average of 12 children have been killed by window blind cords. There has not been a significant decrease in deaths since. Many more have suffered permanent brain damage. ²⁴	Remove any curtains with cords, and install a window stop/guard.	Window Lock (\$1.25 per lock) ¹	
	The blind/curtain was cordless, cord protected, or cord unprotected but inaccessible to the child	From 1990-2015, there were about 16,827 window blind related injuries, about 647 per year. ²⁵ In 2009, the CPSC recalled over 5 million Roman shades and blinds, it was largest product recall in the CPSC's history. ²⁶		Window blind cord wind-ups 2 pack (\$2.50) ¹ Cordless window shade (\$30-\$100) ¹	

Smoke Alarm [All]	At least one smoke detector must be present and working on each level of the unit. Including the basement, but not the crawl spaces and unfinished attic	In 2016, 81% of all U.S. civilian fire deaths occurred in the home. ⁹ In 2016, there were roughly 352,000 reported home structure fires in the US and 2,735 associated civilian death. ⁹		Smoke alarms \$8-\$25 ¹	\$30-\$50 per home ²
Sprinkler	Working Sprinkler system	In 2016, 10.6 billion in property damage was caused by structure fires. ⁹ Based on 2016 US data, there is about one structure fire reported every 66 seconds. The same data shows that a civilian fire injury happens roughly every 36 minutes and a civilian fire death occurs every 2 hours and 35 minutes. ⁹	Inspect sprinkler systems in home with existing systems.	The cost of installing home fire sprinklers is about \$1.35 per sprinklered square foot ²⁷	
			Consider retrofitting homes without existing sprinkler systems.		

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