Hail is a form of precipitation that occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Hail can cause billions of dollars of damage to structures, crops and livestock.

Preparation is the key to protecting your family, home, and property from the damages of hail and the high winds that often accompany these storms.

**Hailstorm preparation checklist:**

- **Install impact resistant roofing.** Roofing materials with a UL 2218 Class 4 rating offer the best protection against hail damage.

- **Trim Trees.** Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm. Pay close attention to trees and branches in close proximity to your home.

- **Secure outdoor items.** Strong winds cause outdoor furniture, playsets, woodpiles, and decorative landscape items to become damaging projectiles. Make sure you tie down outdoor items during strong winds or move them to a sheltered location where they can also stay protected from hail damage.

- **Keep roof gutters clear of leaves and debris.** Avoid water intrusion by ensuring that water can drain quickly away from your home.

- **Shutter windows and secure outside doors.** If shutters are not available, close window blinds, shades or curtains as large hail can break windows.

- **Create a disaster plan.** Develop a plan for you and your family. For tips visit The American Red Cross website at: [www.redcross.org](http://www.redcross.org), or the Federal Emergency Management Agency (FEMA) website at: [www.ready.gov](http://www.ready.gov).

- **Prepare an emergency kit.** Safety and preparedness materials are available at:
  - American Red Cross at: [www.redcross.org](http://www.redcross.org)

- **Build a Safe Room.** Having a safe room in your home can protect you and your family from damage caused by extreme winds. Information on how to build a Safe Room is available from FEMA at: [www.fema.gov/plan/prevent/saferoom/fema320.shtm](http://www.fema.gov/plan/prevent/saferoom/fema320.shtm)

- **Cars and trucks.** Move vehicles into a garage or carport to prevent hail damage.

- **Don’t forget pets and farm animals.** Animals are very vulnerable to hail. Make plans to shelter your animals either in your house or in a farm building, as appropriate.
When a Hail Storm Approaches

- Monitor the weather. Look for signs of a developing thunderstorm such as darkening skies, flashes of lightning, or increasing wind.
- When conditions are warm, humid, and windy, or skies are threatening, monitor for severe weather watches and warnings by listening to NOAA Weather Radio, logging onto weather.gov or tuning into your favorite television or radio weather information source.
- Get to a safe place. If you hear thunder, even a distant rumble, immediately move to a safe place. Stay inside until 30 minutes after the last rumble of thunder.

After the Storm

- Check for roof and siding damage. Hail damage commonly comes in the forms of dimples, made by smaller chunks of hail that impact the outer layer of shingles. You should schedule an inspection with a reputable roofing contractor if you feel there may be damage.
- Check your gutters for signs of potential damage such as large dents and cracks.

Did you know?

Though Florida has the most thunderstorms, Nebraska, Colorado, and Wyoming usually have the most hail storms. The area where these three states meet – “hail alley,” averages seven to nine hail days per year. This occurs because the freezing levels (the area of the atmosphere at 32 degrees or less) in the high plains are much closer to the ground than they are at sea level, where hail has plenty of time to melt before reaching the ground.

Choosing a contractor*

- Look for an established, licensed or bonded roofing contractor. Ask for references.
- Ask to see certificates of insurance. Make sure that both liability and workers compensation insurance coverages are carried and are in force while roofing work is being done.
- Insist on a detailed, written estimate that clearly states the quantity of materials needed; labor charges; work specifications, including approximate starting and completion dates and payment procedures.
- Carefully review and understand any warranty and watch for conditions that would void it.
- Be skeptical about lowest bids or those considerably lower than others written for the same job. Many contractors seem attractive because of low bids; however, they may be uninsured and may perform substandard work. If it looks too good to be true, it probably is.
- Contact your local Better Business Bureau to check for complaints filed against the contractor.
- For further information, contact the National Roofing Contractors Association at 1-800-USA-ROOF or www.nrca.net.

Facts about Thunderstorms and Hailstorms*

- They may occur singly, in clusters or in lines.
- Some of the most severe damage occurs when a single thunderstorm affects one location for an extended time.
- Thunderstorms typically produce heavy rain for a brief period, anywhere from 30 minutes to an hour.
- Warm, humid conditions are highly favorable for thunderstorm development.
- About 10 percent of thunderstorms are classified as severe – one that produces hail, at least an inch or larger in diameter, has winds of at least 58 miles per hour or produces a tornado.

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