Earthquake Preparedness

Illinois is at risk from two major seismic zones, the Wabash Valley Seismic Zone and the New Madrid Seismic Zone (NMSZ). The Wabash Valley Zone is located between southeastern Illinois and southwestern Indiana. The NMSZ is located in the Central Mississippi Valley and includes portions of the states of Alabama, Arkansas, Illinois, Indiana, Kentucky, Missouri, Mississippi, and Tennessee. During any 50-year time span, there is a 25% to 40% chance of a magnitude 6.0 or greater earthquake in this seismic zone. Since 1974, the year network monitoring of seismic activity began, more than 3000 earthquakes have been recorded in the NMSZ. Fortunately, none of these earthquakes exceeded a magnitude of 5.0, and most occurred without our noticing. The largest earthquake in recent years occurred on the Wabash Valley Seismic Zone. This earthquake registered a magnitude of 5.4 and occurred in Mt. Carmel, Illinois on April 18th, 2008.

Did you know that the most powerful earthquakes ever to occur in the continental United States took place in the NMSZ during the winter of 1811-1812? At that time, the area of the seismic zone was scarcely populated. Experts estimate that a similar series of earthquakes today would devastate the region, with projected damages of $60 to $80 billion. This website is dedicated to making citizens more aware of the earthquake hazard in their backyard and to informing them about what they can do before, during, and after an earthquake.

What is an earthquake?

An earthquake is the sudden, rapid shaking of the earth, caused by the breaking and shifting of subterranean rock as it releases strain that has accumulated over a long time. Initial mild shaking may strengthen and become extremely violent within seconds. Additional earthquakes, called aftershocks, may follow the initial earthquake. Most are smaller than the initial earthquake but larger magnitude aftershocks also occur. Earthquakes may cause household items to become dangerous projectiles; cause buildings to move off foundations and/or
Movement of the ground is seldom the actual cause of death or injury. Most casualties result from partial building collapse and falling objects and debris, such as toppling chimneys, falling bricks, ceiling plaster, and light fixtures. Many of these conditions are easily preventable.

Because earthquakes occur without warning, it’s important to take steps now to prepare, especially if you live in Very High and High earthquake risk areas.

Knowing what you can do and how to respond with constructive and protective actions, can make yourself, your family, and your home safer.
Earthquake Hazard Hunt You can identify potential dangers in your home by conducting an earthquake hazard hunt. Knowledge of the issues below and actions taken to mitigate them can decrease your risk of damage and/or injury from an earthquake.

Some possible hazards are:

- Tall, heavy furniture that could topple, such as bookcases, china cabinets, or modular wall units.
- Water heaters that could be pulled away from pipes and rupture.
- Appliances that could move enough to rupture gas or electrical lines.
- Hanging plants in heavy pots that could swing free of hooks.
- Heavy picture frames or mirrors over a bed.
- Latches on kitchen cabinets or other cabinets that will not hold the door closed during shaking.
- Breakables or heavy objects that are kept on high or open shelves.
- A masonry chimney that could crumble and fall through an unsupported roof.
- Flammable liquids, such as painting or cleaning products, which would be safer in a garage or outside shed.

Take steps to correct these hazards.

As with all emergencies it is important follow the simple steps of Preparedness:

1. Get a Kit of Emergency Supplies
2. Make a Plan for What You Will Do in an Emergency
3. Be Informed About What Might Happen
4. Get Involved in Preparing Your Community

For more information on these steps, be sure to visit our Preparedness Page: http://www.pcchd.org/213/Emergency-Preparedness