Personal Emergency Preparedness

Preparing Yourself, Your Family and Your Home

Office of Emergency Management
(650) 723-0448
preparedness@lists.stanford.edu
http://ehs.stanford.edu
Agenda

- Your personal preparedness
  - What to expect
  - Making a plan
  - Preparing yourself and your family
  - Volunteer opportunities
Where do I start?

- Get Informed
- Make a Plan
- Practice your Plan
- Purchase Supplies
- Perform Work
- Relax

What is the one thing you will do this weekend?
Be Aware

What are my risks? (What could happen to me!)
- Fire (local or wildfire)
- Earthquake
- Power Outage
- Severe weather
- Flood
- Mud slide
- Personal Injury/Illness
- Chemical Release/Hazardous Material release
- Tsunami
- Terrorist event
- Infectious disease
- Etc…
My personal risk assessment

Worst case scenario

Events to plan for!

- Chemical Release
- Mud Slide
- Tsunami
- Earthquake
- Fire
- Personal Injury
- Power Outage

Probability

Severity

Low - High
Earthquakes
There are three major earthquake faults in the Bay Area:

- San Andreas
- Hayward
- Calaveras

2007 USGS study concluded that there is a 63% chance of one or more 6.7 earthquakes in the bay area before 2036.
Sooner or later it will happen!
Reality Check

Richter Scale (Magnitude)
- Relative measure of how much energy is released by an earthquake
- Does not say anything about how much the ground moves
- Mitigating factors (location of rupture, depth, soil type)
- Example:
  - 1906 Earthquake 7.9 on the Richter scale
  - 1989 Loma Prieta 6.9 on the Richter scale

Modified Mercalli Scale (Intensity)
- Measure of ground shaking intensity at a specific location
Reality Check

http://quake.abag.ca.gov
Be clear about your responsibilities
- At home (family, pets, possessions, neighbors)
- At work (to your Department, to the University)
- In the community
**Earthquake Effects**

<table>
<thead>
<tr>
<th>Types of facilities</th>
<th>Number (or extent) of Bay Area facilities with a high likelihood of experiencing damaging shaking in the next 30 years</th>
<th>Percentage of total number of facilities in the nine-county Bay Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>76</td>
<td>[80%]</td>
</tr>
<tr>
<td>Fire, Police, and Local Government</td>
<td>2,970</td>
<td>[90%]</td>
</tr>
<tr>
<td>Elementary Schools</td>
<td>987</td>
<td>[90%]</td>
</tr>
<tr>
<td>Intermediate or Middle Schools</td>
<td>164</td>
<td>[80%]</td>
</tr>
<tr>
<td>High Schools</td>
<td>233</td>
<td>[90%]</td>
</tr>
<tr>
<td>Colleges or Universities</td>
<td>62</td>
<td>[80%]</td>
</tr>
<tr>
<td>Bridges and Interchanges</td>
<td>2,721</td>
<td>[80%]</td>
</tr>
<tr>
<td>Bay Area Rapid Transit (BART) tracks</td>
<td>95 miles (150 km)</td>
<td>[80%]</td>
</tr>
<tr>
<td>Roads</td>
<td>18,963 miles (30,350 km)</td>
<td>[80%]</td>
</tr>
</tbody>
</table>
Secondary Effects

- Aftershocks
- Fires
- Hazardous materials releases
- Communications disruptions
- Utility disruptions
  - Electricity
  - Drinking Water
  - Natural Gas
  - Gasoline and Diesel
- Damage failures
- Landslides
- Liquefaction
- Surface ruptures
- Tsunamis
- Civil Unrest
- Financial disruptions
How are you affected?

- Collapsed or dangerous structures
  - Unable to stay in your home (Rubble Dwellers)

- Road closures and traffic congestion
  - Road and bridge closures
  - Public transportation disruptions
  - Difficulty picking up kids

- Overloaded 911
Limited / unavailable communication systems

- Landline
- Cell
- Internet

Banks and other financial institutions not open

- ATMs not operational
- Credit Cards useless
- Cash is King

How are you affected?
Making your Plan

Before the event:
- Make your plan
- Create emergency procedures
- Perform mitigation work
- What should you have accessible?
  - Cash (including coins and small bills)
  - Important phone numbers
  - Identification
  - Medical information (physician, medical conditions, medications)
  - Emergency kit supplies
Making your Plan

Before the event:

What should you have somewhere safe? (in a safe or safety deposit box or use the software tool!)

- Inventory of your possessions
- Insurance information
- Home ownership documentation
- Bank statements, financial documents
- Wills

Tell someone you trust where it is and how to get it

Don’t plan FOR your family, plan WITH your family
Checklists to help gather the necessary information

Reports include:
- Emergency information
- Baby sitter
- Elder care
- Pet sitter reports
- Financial reports and more

Includes encryption software able to be used for other documents on your computer as well
Making your Plan

Personal Information
In this section, you will record basic information such as your name, address, contact information, government identification numbers and marital status. Although this is basic information, easy access is of immense importance in the event of a crisis. You will also record basic medical information such as your medical provider, medical concerns, known allergies, and the location of important medical records.

Do you have the following items?
The following information, once gathered, will assist you in completing this life area for you and your loved ones.

- Family birthdates, birthplaces, citizenship and email addresses
- Social Security Numbers
- Drivers License Numbers
- Passport Numbers
- Other identification Numbers and Membership Cards (Military, Medicare, etc)
- Employers Names and Phone Numbers
- Medical Insurance Provider, Phone Number, identification Number, Group Number
- Current Medications
- Current and Former Physician Names and Contact Information
- Medical Records and their Location
Financial Information

This section provides a snapshot of your financial situation. You can list assets, debts, income sources and basic expenses. You will also record insurance policies and contact information to facilitate recovery in the event of a financial loss.

Do you have the following items?

The following information, once gathered, will assist you in completing this life area for you and your loved ones.

- Bank Information - Checking, Savings, Safe Deposit Box, Other
- Investments - Stocks, Bonds, CD, IRA 401K, Pension, Brokerage, Other
- Debts - Credit Cards, Auto Loans, Student Loans, Other Debts
- Real Property - Home, Rental, Time Share, Senior Housing, Other
- Personal Property (Major Items) - Automobiles, Motorcycles, Boats, RV, Other
- Personal Property (Minor Items) - Furniture, Jewelry, Art, Collectibles, Other
- Income Sources - Wages, Bonuses, Commissions, Rent, Leases, Alimony, Child Support, Other
- Expenses - Mortgage, Electric, Gas, Water, Cable, Home phone, Cellular, Trash, Pet Care, Other
- Insurances - Home, Vehicle, Renters, Other
- Tax Record History - Federal, State, Business, Estate, Other
Making your Plan

Household Information
This section organizes information necessary to the efficient operation of your household.

Emergency Information
This section provides emergency data information that should be stored both in your organizer and as a separate document.

Legal Information
This section is designed to help you organize your important legal documents, including identification cards, powers of attorney, wills, and trusts.

Preview and Print
Click on the button to preview the report

- Family Members
- Print Household
- Financial Report
- Baby Sitter Report
- Print Emergency
- Elder Care Report
- Print Legal
- Pet Sitter Report
Making your Plan

- Basic Procedures – know them and practice them!
  - First Aid CPR
  - Fire extinguisher training
  - Hazard specific procedures
    - Fire - stop, drop, roll
    - Fire - location of extinguishers
    - EQ - duck, cover, hold
    - Infectious disease - cough etiquette, hand hygiene
    - Hazmat release - Shelter in place
    - Evacuation routes - home & workplace
Making your Plan

- Utility shut off
  - Water / Gas / Electricity

- Emergency Supplies
  - Where they are located
  - Inventory
  - Multiple locations (home, work, car, school)

- Transportation
  - Walking routes
  - Know alternate routes
  - Keep at least ½ tank of gas
Reporting the Emergency

Report the Emergency

Know the Emergency Numbers to call

- (9)-911    In the School of Medicine - 286
- Local 7 digit emergency phone for cell phones (in your phone book)
  - Palo Alto Police    650-321-4433
  - Menlo Park Police   650-325-4424
  - Los Altos Police    650-947-2779
  - Mountain View Police 650-903-6395

Be prepared to answer

- Your location
- Your phone #
- Nature of the emergency
- Do you (or anyone else) need medical attention
- Stay on the line until the operator hangs up. Never hang up first!
In Case of Emergency

In
Case of
Emergency

ICE2, ICE3
Communications

- Emergency Alert System
  - Local Radio stations
    - 740 KCBS
    - 90.1 KZSU
  - Mass notification - sign up! Get notices by phone, email or SMS text
- AlertSU & Outdoor Warning system

- Personal communications
  - Out-of-area contact
Communications Plan

Out-of-Area Contact
Other Plan Considerations

❖ Reunification plan
❖ At work - EAP
❖ Local - family, friends
   - Instructions on how long to wait at a particular location. Where will you go next?
   - Leave messages for each other.
Other Plan Considerations

❖ Children
❖ Know your school emergency plan
❖ Who is authorized to pick up your children?
❖ Talk to your children about earthquakes

❖ Aging parents/loved ones
❖ If you can not check in on them, who can?

❖ Pets
# Planning Assumptions

<table>
<thead>
<tr>
<th>Question</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of emergency?</td>
<td>Assume earthquake (Also consider other events)</td>
</tr>
<tr>
<td>Where will you be?</td>
<td>Home, Office, Vehicle (Other frequent locations)</td>
</tr>
<tr>
<td>How long will you be without services?</td>
<td>Experts say to plan for 5 days</td>
</tr>
<tr>
<td>How many people?</td>
<td># of people in your family/office</td>
</tr>
<tr>
<td>Do you need to evacuate?</td>
<td>Assume yes and create a Grab and Go kit</td>
</tr>
<tr>
<td>What are the conditions?</td>
<td>Assume cold and rainy (if you assume warm and sunny, it won’t be!)</td>
</tr>
</tbody>
</table>
Emergency Kits

- Emergency Kits (Home, Work, Car)
- Minimum 3, 5, 7, 10-day supply of food
- Water (1 gallon/person/day)
- Flashlights, radio, and spare batteries
- Extra supplies in work area and car

- Extra Supplies
  - Warm clothing, shoes, extra glasses and prescription medications

- #1 Rule
  - If you don’t have it with you…
  It can’t help you!!!
# Emergency Kit Contents

<table>
<thead>
<tr>
<th>Qty/Item</th>
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<th>Qty/Item</th>
<th>Qty/Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Headlamp Light</td>
<td>1 Emergency Poncho</td>
<td>1 Leather Palm Gloves LG</td>
<td>1 Toothbrush</td>
</tr>
<tr>
<td>1 Dynamo Light, Radio, Cell Charger</td>
<td>4 12 Hour Lightstick GREEN*</td>
<td>1 Tissue Pack</td>
<td>1 Toothpaste</td>
</tr>
<tr>
<td>1 Pocket Tool 14 in 1</td>
<td>1 Plastic Whistle w/Lanyard</td>
<td>1 Razor, Disposable</td>
<td>1 Bar Soap 1.5oz</td>
</tr>
<tr>
<td>1 Matches, Waterproof 2pk</td>
<td>1 All Purpose 1st Aid Kit 81pc*</td>
<td>1 Shave Cream 1.5oz</td>
<td>1 Wash Cloth</td>
</tr>
<tr>
<td>1 Survival Bag</td>
<td>12 Antiseptic Wipe*</td>
<td>1 Deodorant 1.5oz</td>
<td>18 Wet Wipe Towelettes</td>
</tr>
<tr>
<td>1 Heat Pack BODY GRABBER*</td>
<td>1 Utility Tape 10 Yard</td>
<td>1 Comb</td>
<td>1 Lotion Hand &amp; Body 4oz</td>
</tr>
<tr>
<td>1 Aqua Literz Water*</td>
<td>3 Dust Mask</td>
<td>1 Shampoo / Body Wash 4oz</td>
<td></td>
</tr>
</tbody>
</table>

*Items in RED expire.*

**Items for you to add:**
- Personal Clothing
- Food
- Medications
- Glasses/contacts
- Emergency contacts
- Batteries
- Supplies for children / babies

**Items to consider:**
- Ziploc bags
- Trash bags
- Calling cards
- Safety pins/Zip ties
- Battery or solar cell charger
- Electrolyte drinks/powder/tablets
- Entertainment (books, games)
Emergency Kit Recommendations

- **Flashlights**
  - Get a good LED light

- **Batteries**
  - Lithium are best (10 yr shelf life)
  - Alkaline are ok (4 yr shelf life)
  - Carbon (Heavy Duty) – Don’t do it!!

- **POTS (Plain old telephone service)**
  - Does your phone work when the power is out?
Maintaining Disaster Kits

- Resupply after use ASAP

- Keep an inventory
  - Readily accessible to view kit contents
  - Add expiration date
  - Add last date inventoried and by whom
  - Evaluate if your needs have changed

- Review every 6 months (when you change your clocks)
  - Rotate your water!!!
  - Frequency depends on expiration date of supplies
  - Set specific date and time similar to testing fire alarms
Maintaining Disaster Kits

- Inspect all supplies/equipment for general condition
  - Leakage, pests, holes
  - Make sure to test all battery operated equipment with the batteries in your kit

- Make sure everyone using the kit knows how to operate equipment

- Review emergency plans for updated information or improvements to plan
Preparing your home for Earthquakes

Things to consider (the easy stuff)
- Restrain your water heater
- Add lips to bookshelves
- Add latches to cabinet doors
- Restrain furniture
- Restrain equipment

Things to consider (the harder stuff)
- Bolt the house to the foundation
- Increase house stability with plywood sheeting
  - Is it a HOG (House Over Garage)?
- Chimney safety
- Reinforce cripple walls
Preparing your home for Earthquakes

Why don’t people do it?
- Too much work
  - Take it one step at a time

Too expensive
- Price earthquake insurance and see how expensive that is!
  - 1953 1,050 sq ft house, 2 bed, 1 bath single story home ~$1,200/year with a $50K damage deductible

I don’t know how!
This is why!
Help is Available

http://www.sanleandro.org/depts/cd/bldg/retrofit/handbook.asp
Figure 16. Shows an inadequate pony wall bracing that does not meet the requirements.
(Photo by Gary Milici, RetroFitters Inc.)
## Testimonials

### Loma Prieta Retrofit Success

<table>
<thead>
<tr>
<th></th>
<th>Retrofitted?</th>
<th>Cost to repair after Loma Prieta</th>
</tr>
</thead>
<tbody>
<tr>
<td>210 Elm Street</td>
<td>Yes</td>
<td>$5,000</td>
</tr>
<tr>
<td>214 Elm Street</td>
<td>No</td>
<td>$260,000</td>
</tr>
</tbody>
</table>

The homes were built by the same builder, with identical materials, using the same construction techniques, and they were located on the same street corner.
Northridge Home Retrofit Success

“A family spent $3200 in 1993 retrofitting their home built in 1911. None of their neighbors did any work. When the 1994 Northridge earthquake hit, this home was the only one on both sides of the street for two blocks that was not damaged.” James Russell, Codes Consultant
Websites Worth Your Time

Earthquake information
- quake.wr.usgs.gov
- quake.abag.ca.gov/mapsba.html

Home EQ retrofit guidance

General Preparedness
- redcross.org
- ready.gov
- 72hours.org
- emergency.cdc.gov
- citizencorps.gov
Volunteer and Training Opportunities

On Campus
- Your Department Response Team
- Building Assessment Team (BAT Team)
- Stanford Community Emergency Response Team (SCERT)  http://scert.stanford.edu

Off Campus
- Red Cross
- Community Emergency Response Team (CERT)
- Palo Alto Neighborhood Disaster Assistance (PANDA)
- ARES/RACES Amateur Radio emergency communications team
What is one thing you will do this weekend?

- Make an emergency kit?
- Perform a home inspection?
- Start your home inventory?
- Talk to your kids?
- Others?...