



## *Disaster Preparedness for Taiwan*

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Taiwan lies near the junction of the Philippine and the Eurasian tectonic plates, which makes it prone to frequent earthquakes. While most are so slight they pass unnoticed, a major quake in September 1999 resulted in the deaths of more than 2,000 people in Central Taiwan.

April through October is typhoon season in Taiwan. In addition to strong winds, these storms can bring huge quantities of rain which cause flooding and, in mountainous areas, mudslides.

Global health experts are closely monitoring the spread of H5N1 avian influenza. Some experts fear the virus possesses the capacity to mutate into a strain capable of human-to-human transmission, which could result in a flu pandemic.

These potential disaster scenarios do not play a big role in the day-to-day life of the Taiwanese or expats. People generally acknowledge the threat, but get on with their lives. It is, however, wise to accept the fact that you may experience some sort of emergency situation during your time in Taiwan, and it's a good idea to be prepared.

### *General Disaster Preparedness Tips for Individuals and Families*

Preparing in advance for a possible disaster situation is not only prudent but can also provide peace of mind.

#### *Family Disaster Plan*

Your family may not be together if disaster strikes. Develop a plan that covers how you will contact one another and what you will do in different situations, including earthquake, typhoon, political unrest, medical emergency and flu pandemic. Your plan should include:

- A sufficient supply of cash kept in a safe place, enough to cover evacuation or basic needs in the event of a prolonged quarantine. Be sure to include a large quantity of bills in small denominations.
- Up-to-date travel documents. Be sure to renew passports, visas and other important identification documents as early as is possible to do so.
- Important documents centralized in a safe place, as well as copies of these in your disaster supplies kit. Scan these documents and save the files onto a CD or flash drive. Include photographs of family members and pets, which would be important in the event you are separated
- Two places your family will meet in the event of an emergency: one right outside your home and the other outside your neighborhood.
- A friend or family member outside of Taiwan who will act as your "family contact"
- A Chinese-speaking friend or associate based in Taiwan who can relay official emergency response information to you and your family if you are not proficient in Chinese
- An earthquake plan which identifies a safe place in every room of your home where family members can protect themselves during shaking.
- Registration of all your family members with your country's embassy or trade office in Taipei.

Practice your plan and be sure all family members are clear on what to do.

Additional disaster planning aids and resources are available at:

FEMA – general disaster preparedness	<a href="http://www.fema.gov/pdf/areyouready/basic_preparedness.pdf">www.fema.gov/pdf/areyouready/basic_preparedness.pdf</a>
Red Cross – disaster preparedness at home	<a href="http://www.redcross.org/services/prepare/0,1082,0_80_00.html">www.redcross.org/services/prepare/0,1082,0_80_00.html</a>
Red Cross – disaster preparedness at school	<a href="http://www.redcross.org/services/prepare/0,1082,0_454_00.html">www.redcross.org/services/prepare/0,1082,0_454_00.html</a>
Red Cross – disaster preparedness at work	<a href="http://www.redcross.org/services/prepare/0,1082,0_57_00.html">www.redcross.org/services/prepare/0,1082,0_57_00.html</a>
Red Cross – multilingual preparedness information	<a href="http://www.redcross.org/services/disaster/0,1082,0_504_00.html">www.redcross.org/services/disaster/0,1082,0_504_00.html</a>
FEMA / Red Cross – people with disabilities & special needs	<a href="http://www.redcross.org/images/pdfs/preparedness/A4497.pdf">www.redcross.org/images/pdfs/preparedness/A4497.pdf</a>
Red Cross – children & disasters	<a href="http://www.redcross.org/services/disaster/0,1082,0_602_00.html">www.redcross.org/services/disaster/0,1082,0_602_00.html</a>
Red Cross – pets & disaster preparedness	<a href="http://www.redcross.org/services/disaster/0,1082,0_604_00.html">www.redcross.org/services/disaster/0,1082,0_604_00.html</a>
FEMA / Red Cross – financial planning for disasters	<a href="http://www.redcross.org/services/disaster/0,1082,0_605_00.html">www.redcross.org/services/disaster/0,1082,0_605_00.html</a>
Taipei Trade Offices – contact information	<a href="http://www.community.com.tw/TradeOffice.pdf">www.community.com.tw/TradeOffice.pdf</a>

### ***Disaster Supplies Kit***

Prepare a disaster supplies kit for home, car and office. These kits should include some or all of:

- First aid kit and essential medications – consider prescription and OTC medication requirements in the event of a quarantine
- Canned or shelf-stable food and can opener – enough to last at least 72 hours
- At least 3 gallons of water per person and/or water purification tablets
- Protective clothing, rainwear and bedding / sleeping bags
- Battery-powered radio, flashlights and extra batteries. Models that do not require batteries are worth considering
- Alcohol-based hand cleaner
- Special items for infants, elderly or disabled family members.
- Copies of important documents, including passports, ARCs, credit cards, financial accounts, photos of family members and pets, and lists of important telephone numbers
- Food, leash and kennel for pets
- Masks and gloves in the event of a quarantine

Consider packing your disaster kit in something waterproof that is easy to grab and carry in the event you must evacuate quickly.

Detailed disaster kit information and checklists can be found at:

FEMA – disaster supplies checklist	<a href="http://www.fema.gov/pdf/areyouready/appendix_b.pdf">www.fema.gov/pdf/areyouready/appendix_b.pdf</a>
Red Cross – home disaster supply kit	<a href="http://www.redcross.org/services/prepare/0,1082,0_91_00.html">www.redcross.org/services/prepare/0,1082,0_91_00.html</a>
Red Cross – work place disaster supply kit	<a href="http://www.redcross.org/services/disaster/0,1082,0_607_00.html">www.redcross.org/services/disaster/0,1082,0_607_00.html</a>
Red Cross – disaster kit checklist	<a href="http://www.redcross.org/static/file_cont3615_lang0_1395.pdf">www.redcross.org/static/file_cont3615_lang0_1395.pdf</a>
Disaster kit supplies for sale	<a href="http://www.beprepared.com">www.beprepared.com</a>

## ***Earthquakes***

Reinforced or steel-frame construction typical in the majority of larger buildings today, possesses the strength and flexibility to withstand most earthquake movement. Although most earth tremors are slight, it is best to take precautions in the unlikely event that a major tremor occurs.

### *What You Can Do To Prepare*

Assess your home's readiness to withstand an earthquake. To prepare for an earthquake, do the following:

- Secure bookcases and other top-heavy furniture to wall studs with metal L-brackets and/or lag screws.
- Replace conventional cabinet door latches with safety latches that will not open in a quake. Keep heavy objects on low shelves.
- Secure hanging fixtures well.
- Store toxic and flammable materials in spill-proof, crush-proof containers on low shelves, preferably in locked cabinets.
- Remove any lock wheels or casters on the refrigerator and other heavy appliances or block them so they will not move.
- Brace your water heater by fastening it to a wall with metal straps.
- Keep flashlights and sturdy shoes by your bedside.

### *When an Earthquake Occurs*

Stay where you are! Most earthquake injuries occur as people enter or leave buildings. The greatest danger is from falling objects just outside exterior doorways and walls. In the event of an earthquake, do the following:

#### *If you are inside,*

- Stay inside unless fire has broken out or until you are advised otherwise. Take the best available cover and make sure children are protected.
- Open the door for your exit route, as strong movement can cause door frames to distort and doors to jam.
- Turn off electricity and gas.
- Move to a safe location, get under a sturdy table or desk, stand or crouch in a strong doorway in a load-bearing wall, not a partition wall, or brace yourself in an inside corner of the room.
- If possible, shield your head with a coat, cushion or blanket.
- Stay away from windows, mirrors or other glass that might shatter.
- Avoid chandeliers and other heavy hanging objects that might fall.
- Keep clear of bookcases, cabinets and other pieces of heavy furniture that might topple or spill their contents.
- Stay away from stoves, heating units, fireplaces and any area where bricks might fall from the chimney.
- If you are in a high-rise building, do not use the elevators or the stairs.
- If you are instructed to leave the building, protect your head with a chair or some other sturdy object and watch for falling objects such as windows, glass, walls, ceilings and other loose objects.

#### *If you are outside,*

- Find shelter outdoors, unless you are lucky enough to be in an open space where nothing can fall on you. Be sure to stay clear of power lines and poles, trees or branches, external stairs, building facade ornaments, chimneys or anything that might fall.
- If you are downtown, hazards increase, especially in areas of high-rise buildings. Windows and building facades can shower the streets with deadly litter. Get under a strong doorway or crawl under a parked vehicle, the bigger the better.

### *What to Do After the Shaking Stops*

- Check yourself for injuries.
- Check others for injuries, provide first aid and/or seek medical assistance, as required.
- Check your home for damage and fires. Turn off the gas if you think you smell a leak. If you think your home is unsafe, get everyone out.
- Listen to ICRT (FM 100.7) for information updates.
- Prepare to experience after-shocks which can be almost as severe as the initial quake and may occur minutes, hours or even days later. If you feel one, take cover.

If the earthquake is severe it may be wise to contact your local trade office for advice.

For additional resources, please refer to:

FEMA – earthquake preparedness	<a href="http://www.fema.gov/hazard/earthquake/index.shtm">www.fema.gov/hazard/earthquake/index.shtm</a>
Red Cross – earthquake preparedness	<a href="http://www.redcross.org/static/file_cont164_lang0_71.pdf">www.redcross.org/static/file_cont164_lang0_71.pdf</a>
Taiwan Central Weather Bureau – earthquake info	<a href="http://www.cwb.gov.tw/V5e/index.htm">www.cwb.gov.tw/V5e/index.htm</a>
USGS – earthquake info	<a href="http://earthquake.usgs.gov">http://earthquake.usgs.gov</a>

## *Typhoons*

A typhoon, known as a hurricane in the Atlantic Ocean, is a storm of damaging proportions. Typhoons are most likely to hit Taiwan from July to October, and unlike earthquakes, are somewhat predicable as to when and where they will hit.

There are four types of destructive storms that can directly impact Taiwan:

- Tropical depressions - wind speeds of 29 mph (46 kph) or less.
- Tropical storms - wind speeds between 29 mph (46 kph) and 55.5 mph (89 kph).
- Typhoons - wind speeds between 55.5 mph (89 kph) and 114.5 mph (183 kph), known as hurricane categories 1 through 4 in the Atlantic.
- Super Typhoons: wind speeds greater than 114.5 mph (183 kph). These are the equivalent of category 5 storms.

In addition to bringing damaging winds, typhoons can drop incredible amounts of rain. Owing to the mountains running the length of the island, these storms can sometimes drop rain in excess of 1 meter in 24 hours.

### What You Can Do to Prepare

Proactively prepare your home:

- Be sure to have on hand the supplies listed above in the disaster kit.
- Check roof for leaks.
- Clear drain holes in balconies and window boxes.
- Obtain plastic sheeting for furniture protection, tape for windows and extra radio batteries.
- Organize valuable papers into a waterproof packet.
- Make sure your PC or other sensitive electronic equipment is not situated in a place where water can damage it.

48 hours prior to a typhoon:

- Fill your gas tank; power loss may disable pumps during storms.
- Make extra ice for short-term cold storage if power fails.
- Check potable water supply.
- Listen to ICRT, FM 100.7 for regular typhoon updates. Within 36 hours from landfall, ICRT includes hourly typhoon updates as part of their regular newscasts.

24 hours prior to a typhoon:

- Move furniture away from windows. Roll up rugs and place on furniture. Place furniture legs in tin cans or on bricks in case of flooding.
- Remove debris and loose equipment from your yard or balcony. Tie down or trim trees and bushes. Secure potted plants.
- Turn refrigerator and freezer to coldest setting.
- Charge mobile phones.
- Fill bathtub and sinks with water for cooking and flushing. Use plastic wrap around stoppers to seal drains.

12 hours prior to a typhoon:

- Typhoon becomes ICRT's top news story. Hourly newscasts begin with a typhoon update. ICRT will announce school and government office closures. When government offices close, so will most private sector companies. Do not be tempted to stay at work, as you may become stranded.
- Traffic is restricted to emergency vehicles only.
- Power loss sometimes occurs. Power outages are monitored by the electric company and repairs will be made as soon as possible. Do not tie up the telephone system with unnecessary reports. Telephone lines may also go down.
- If the power goes out, open the refrigerator and freezer as little as possible. A refrigerator will maintain its temperature for 24 hours or more unless opened. Put the ice you've made and the food you will need into a cooler to avoid opening the refrigerator.
- Pull down typhoon shutters, if available.
- Park your car on high ground in an area free from danger of falling trees or flying debris.
- If leaks develop in the ceiling, you may have to make a small drain hole to localize the leakage and prevent the whole ceiling from becoming saturated.
- Tape windows in crisscross fashion (use strong tape you would use for parcels, most hardware stores stock it). *Note: tape will not prevent windows from breaking, but will minimize the danger of them shattering.*

During the storm:

- Stay indoors, away from windows and keep curtains closed. Winds can knock adults and children down, snap power lines and shatter glass.
- ICRT issues updates on the half hour and hour and continues until the typhoon has moved away. Please do not call ICRT; their telephone lines are needed for emergency communication.
- DO NOT leave your home if the winds suddenly die down. You are in the eye of the storm and winds will resume with full force from the opposite direction soon.

Typhoon recovery – typhoon's radius has cleared Taiwan but danger still exists:

- Stay at home! Roads may be blocked due to landslides, flooding or downed power lines or trees.
- Traffic restricted to official vehicles only. Offices and facilities remain closed.
- Begin cleaning up your residence.
- Do not go 'sightseeing'. Danger still exists due to downed power lines and local flooding.

For more information, please see:

FEMA – typhoon preparedness	<a href="http://www.fema.gov/hazard/hurricane/index.shtm">www.fema.gov/hazard/hurricane/index.shtm</a>
Red Cross – typhoon preparedness	<a href="http://www.redcross.org/static/file_cont207_lang0_94.pdf">www.redcross.org/static/file_cont207_lang0_94.pdf</a>
Taiwan CWB – typhoon tracking	<a href="http://www.cwb.gov.tw/V5e/index.htm">www.cwb.gov.tw/V5e/index.htm</a>
US Navy – typhoon tracking	<a href="http://www.npmoc.navy.mil/jtwc.html">www.npmoc.navy.mil/jtwc.html</a>
Tropical Storm Risk – typhoon tracking	<a href="http://forecast.mssl.ucl.ac.uk/shadow/tracker/dynamic/main.html">http://forecast.mssl.ucl.ac.uk/shadow/tracker/dynamic/main.html</a>

## Avian Flu

Global health experts are closely monitoring a type of avian influenza (H5N1) that is infecting birds in Asia, Africa and Europe and has infected some humans. Many experts fear that this virus could mutate into a form that would allow human-to-human transmission and cause a world-wide flu pandemic. As of April 2006, there is no vaccine to protect against this virus.

Health officials recommend the following precautions to reduce the risk of infection:

- Avoid all direct contact with birds, including chickens, ducks or geese (even those that appear healthy), as well as farms or live-animal markets with birds. Avoid touching surfaces contaminated with bird feces or secretions.
- Practice good hygiene with frequent hand washing or use of alcohol gels. Hand washing is also important when handling raw poultry or eggs for cooking.
- Do not ingest undercooked eggs or foods from poultry.
- Consult your healthcare provider if you become ill with fever and respiratory symptoms.

For current information on the status of the avian flu threat, contact your home country's trade office or visit the following:

US Government – pandemic preparedness	<a href="http://www.pandemicflu.gov/plan/pdf/Individuals.pdf">www.pandemicflu.gov/plan/pdf/Individuals.pdf</a>
US CDC	<a href="http://www.cdc.gov">www.cdc.gov</a>
Taiwan CDC	<a href="http://www.cdc.gov.tw/en/index.asp">www.cdc.gov.tw/en/index.asp</a>
WHO	<a href="http://www.who.int/csr/disease/avian_influenza/en/index.html">www.who.int/csr/disease/avian_influenza/en/index.html</a>

## Staying Healthy During a Disaster

Disasters present not only property safety concerns but also family health concerns. During a serious disaster, impure water, spoiled food, garbage and sewage can lead to sickness. Normal services may not be available for days during an emergency. You should prepare your household to function without outside services for at least seven days, although interruption to services for this length of time is rare, but could be even longer in a flu pandemic quarantine situation.

The following measures will help your family members to stay healthy:

- Store enough drinking water to last seven days: at least 3 gallons for each family member. Humans can survive for quite some time without food, but clean water is a necessity. Emergency drinking water can be made by adding five drops of household bleach to one gallon of water or by boiling water for 15 minutes. To reduce consumption of emergency drinking water, supplement with other fluids such as canned juices and sodas.
- *Note: Stored water does not stay pure for long. Water should be changed and containers cleaned and disinfected at least monthly.*
- Keep enough canned / shelf-stable food on hand to provide for seven days. Power outages can be counted on during and after typhoons and serious earthquakes. If the power outage is lengthy, fresh food may spoil. Powdered, condensed or evaporated milk is a handy substitute for fresh milk. When purchasing emergency food supplies, stick to items that can be eaten without cooking.
- Store all refuse in large plastic trash bags and close them securely. Garbage attracts insects that may carry disease into your home. Household insecticides may also be helpful to discourage insects.
- Fill all bathtubs, sinks and containers with water, then use this water to operate toilets.
- Encourage family members to maintain good hygiene, especially hand washing. Keeping hands clean greatly reduces the risk of transmitting germs, bacteria and viruses.

## ***General Disaster Preparedness Tips for Small Business***

Small businesses are vulnerable to disaster. In many instances they do not have the resources to develop comprehensive disaster preparedness, business continuity and recovery plans.

For information and tips regarding small business disaster preparedness, please refer to the following:

Insurance Information Institute – small business disaster preparedness	<a href="http://www.disasterinformation.org/disaster2/latest/biz_prep/">www.disasterinformation.org/disaster2/latest/biz_prep/</a>
Institute for Business & Home Safety – small business disaster planning tool kits	<a href="http://www.ibhs.org/business_protection/">www.ibhs.org/business_protection/</a>
PERI – small business disaster planning kit	<a href="http://www.ibhs.org/docs/openforbusiness.pdf">www.ibhs.org/docs/openforbusiness.pdf</a>
FEMA – small business disaster planning tools	<a href="http://www.fema.gov/business/">www.fema.gov/business/</a>
US Government – pandemic flu	<a href="http://www.pandemicflu.gov/plan/tab4.html">http://www.pandemicflu.gov/plan/tab4.html</a>

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This overview of disaster preparedness for Taiwan is made available as a service to the international community in Taiwan by the Community Services Center and is excerpted from The Center's **Taipei Living**. If you would like more information about **Taipei Living** or The Center, please go to: [www.community.com.tw](http://www.community.com.tw) or call The Center at +886 2 2836 8134.



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