

# What-to-do manual: Tsunami

the Americas · Updated on 2026-09-10 · [comoactuaencrisis.com](https://comoactuaencrisis.com)

A local tsunami doesn't wait for an alarm to sound: it can arrive within minutes, before any authority manages to issue a warning. That's why the official instruction here is different from almost any other emergency — here, the earthquake itself is the warning. Whoever knows the three natural signs and moves to high ground without waiting for permission lives; whoever goes back to the beach after the first wave often doesn't.

## Before the crisis

### The three natural warning signs: if you see one, that is the alert

The U.S. National Weather Service lists them this way: **feeling a strong or long earthquake**; **seeing the ocean behave strangely** — rising like a fast flood, appearing as a wall of water, or **pulling back suddenly**; and **hearing a loud roar coming from the ocean**. And the instruction that goes with them allows no nuance: **do not wait for official warnings — leave low-lying coastal areas immediately and move to high ground or inland**. The tsunami can arrive within minutes.

**Learn your evacuation route today**, because on the day of the earthquake you won't have time to improvise one. FEMA's official fact sheet gives a concrete target for where to go: **30 meters (100 feet) above sea level, or at least 1.6 kilometers (one mile) inland**. If your area has evacuation signage, follow it: it was mapped using the local inundation study, which is better than any calculation you could make yourself.

- Walk your route at least once, timing it, and do it with the children and older family members too.
- Keep closed shoes and a flashlight within reach in a fixed spot: many tsunamis arrive at night.
- Agree on a meeting point **on high ground**, not at home. Nobody goes back down to look for anyone.
- If you live, work, or send your children to school in a low-lying coastal area, ask what the protocol is and where the safe zone is.
- Have a battery radio: for a distant tsunami, the official warning does arrive, and there is time to hear it.

### Local tsunami — the earthquake is the warning

The NWS defines it this way: **"The source of a local tsunami is close to the coast and may arrive in less than one hour."** NOAA adds that local tsunamis **can arrive just minutes after** the event that generates them. In this scenario there won't be a bulletin in time: if you feel a strong or long earthquake on the coast, first protect yourself from the earthquake — drop, cover, hold on — and, as soon as the shaking stops, move to high ground.

### Distant tsunami — here there is a warning

When it is generated on the other side of the ocean, **"there is more time to issue and respond to warnings."** This is the case where the radio, your phone, and the authorities work as a warning system, and where it's best to leave in an orderly way rather than in a stampede.

Source: NWS — National Weather Service (NOAA, USA) — Tsunami Safety — During. <https://www.weather.gov/safety/tsunami-during>

Source: NWS — National Weather Service (NOAA, USA) — About Tsunamis. <https://www.weather.gov/safety/tsunami-about>

Source: FEMA · Ready.gov (USA) — Be Prepared for a Tsunami (fact sheet V-1011).

[https://www.ready.gov/sites/default/files/2024-08/ready-gov\\_tsunami\\_info-sheet.pdf](https://www.ready.gov/sites/default/files/2024-08/ready-gov_tsunami_info-sheet.pdf)

Source: NOAA — National Tsunami Warning Program — Knowledge Saves Lives! Tsunami Awareness & Safety.

[https://repository.library.noaa.gov/view/noaa/16128/noaa\\_16128\\_DS1.pdf](https://repository.library.noaa.gov/view/noaa/16128/noaa_16128_DS1.pdf)

## During the crisis

**1. First, survive the earthquake**

If you're on the coast and the ground shakes, the first threat is the earthquake itself: **drop, cover, and hold on** until the shaking stops. Only then does the evacuation begin.

**2. Move to high ground or get away, without waiting for confirmation**

Move **as high or as far inland as possible**, or to your safe zone outside the risk area. Don't waste time checking social media to see if it "really" is coming: in a local tsunami, by the time there's confirmation, there won't be any time left.

**3. Do it on foot if you can**

NOAA is explicit about this: **plan to evacuate on foot if you can; roads may be impassable because of damage, closures, or traffic jams**. A strong earthquake leaves streets broken and traffic lights dead; the car that seemed like the faster option is the trap where many people get stuck.

**4. Don't go down to look at the sea**

Water pulling back and exposing the seabed isn't a spectacle: it's the sign that the wave is coming. Every documented tsunami has its own list of people who went down to look or to pick up stranded fish.

**The first wave is not the biggest**

This is the mistake that kills the most people, because it happens right when the danger seems to have passed. The NWS puts it bluntly: **the first wave may not be the last or the biggest, and the danger can last for hours or days**. It adds that **the time between waves ranges from five minutes to two hours**, and that **it is not possible to predict how long a tsunami will last, how many waves there will be, or how much time will pass between them**. Do not go back until the authorities give the all-clear.

**Warning**

Issued when a tsunami with the potential to generate **widespread inundation** is imminent, expected, or occurring. Action: **move to high ground or inland**.

**Advisory**

Issued when **currents or waves dangerous to anyone in the water or very close to it** are expected. Action: **get out of the water and stay away from beaches and waterways**. It doesn't require evacuating inland, but the beach stops being a safe place.

**Watch**

Issued when a tsunami **may later affect** the area. Action: stay informed and **be ready to act**.

Source: NWS — National Weather Service (NOAA, USA) — Tsunami Safety — During. <https://www.weather.gov/safety/tsunami-during>

Source: NWS — National Weather Service (NOAA, USA) — About Tsunamis. <https://www.weather.gov/safety/tsunami-about>

Source: NOAA — National Tsunami Warning Program — Knowledge Saves Lives! Tsunami Awareness & Safety.

[https://repository.library.noaa.gov/view/noaa/16128/noaa\\_16128\\_DS1.pdf](https://repository.library.noaa.gov/view/noaa/16128/noaa_16128_DS1.pdf)

Source: Tsunami Warning Centers (NOAA, USA) — Alert message definitions. [https://www.tsunami.gov/?page=message\\_definitions](https://www.tsunami.gov/?page=message_definitions)

**After the crisis**

- Stay on high ground until the authorities declare the danger over, even if the sea looks calm.
- When you return, avoid standing water: it may contain sewage, fuel, and live electrical wires.
- Don't enter a building that was surrounded by water until someone with technical judgment has inspected it: water undermines foundations.

- Document all the damage with photographs before you clean up or throw anything away, for insurance and for any official aid.
- Treat tap water as unsafe to drink until the authorities confirm otherwise: check the disinfection procedure in the infrastructure crisis guide.
- Expect electricity and water to take a while to come back: the power outage guide covers those days.

### Who issues the warning in Latin America

In **Mexico**, the **Centro de Alerta de Tsunamis (CAT)**, run by the Secretaría de Marina, operates "**24 hours a day, 365 days a year**" to distribute information about distant, regional, and local tsunamis that could affect the country's coasts. In **Chile**, the **SHOA**, part of the Navy, determines the threat and SENAPRED coordinates the response; its protocol calls for preventive evacuation when an intensity of **VII or higher on the Mercalli scale is recorded in a coastal area**. In **Peru**, the **CNAT** falls under the Dirección de Hidrografía y Navegación, Marina de Guerra del Perú. Save your country's official channel today — an emergency is not the time to go looking for it.

Source: SEMAR — Secretaría de Marina (México) — Centro de Alerta de Tsunamis (CAT). <https://diredimoat.semar.gob.mx/cat/centroAlertasTsunamis.html>

Source: SENAPRED — Servicio Nacional de Prevención y Respuesta ante Desastres (Chile) — Earthquake and tsunami protocol (SENAPRED, SHOA, and CSN). <https://www.senapred.cl/2023/10/30/senapred-shoa-y-csn-presentaron-nueva-version-del-protocolo-ante-sismo-y-tsunami/>

Source: Dirección de Hidrografía y Navegación, Marina de Guerra del Perú — Centro Nacional de Alerta de Tsunamis (CNAT). <https://www.dhn.mil.pe/cnat/>

## Family plan

A family tsunami plan stands out for one rule you have to accept ahead of time: **everyone gets to high ground on their own**. Nobody goes back down to look for anyone, and the meeting point is up top, not at home. It sounds harsh, and it's exactly what separates the families who reunite from those who don't.

### With children

Teach them the three natural signs the same way you teach them to cross the street: if it shakes hard, if the sea pulls back, if you hear a roar, **you go up without asking anyone's permission**. A child who knows this can save themselves even if they're not with you, which is exactly the scenario that's frightening.

### With older adults or people with limited mobility

This is the hardest part, and it has to be worked out beforehand: who goes with them, by which route, and which tall, nearby building can serve as vertical refuge if the recommended height can't be reached. That arrangement gets made with your neighbors, not just within the family.

### If you work or live facing the sea

Keep the same things at work as at home: closed shoes, a flashlight, and a known route. Most people are not at home when the emergency happens.

Source: NWS — National Weather Service (NOAA, USA) — Tsunami Safety — During. <https://www.weather.gov/safety/tsunami-during>

Source: FEMA · Ready.gov (USA) — Be Prepared for a Tsunami (fact sheet V-1011).

[https://www.ready.gov/sites/default/files/2024-08/ready-gov\\_tsunami\\_info-sheet.pdf](https://www.ready.gov/sites/default/files/2024-08/ready-gov_tsunami_info-sheet.pdf)

## Food and water

### The water number you need to memorize

The CDC sets it without ambiguity: **at least 1 gallon (3.8 liters) per person per day, for 3 days**. Ready.gov adds the nuances that save whoever heeds them: **"children, nursing mothers, and sick people may need more"**, and **"with very high temperatures, water needs can double"**. If someone in your home is pregnant, sick, or you live in a hot climate, that number is a floor, not a target.

### How to store it so it works when you need it

The CDC calls for **approved food-grade containers** with a tight-fitting lid, made of a sturdy, unbreakable material —**never glass**— and with a narrow mouth for pouring. An explicit warning: **never use a container that has held toxic chemicals** such as bleach or pesticides. And what almost everyone forgets: **stored water should be replaced every 6 months**. To disinfect the container before filling it, use a teaspoon of unscented household bleach per liter of water, wait 30 seconds, and pour it out.

### What food to keep on hand

Ready.gov recommends **several days of non-perishable food** and gives a concrete list: ready-to-eat canned meats, fruits, and vegetables —**and a can opener**—, protein or fruit bars, dry cereal or granola, peanut butter, dried fruit, canned juices, and pasteurized long-life milk. The rule when putting it together is simple: food your family will actually eat, that needs no cooking, and that you can rotate before it expires.

### No power, the food clock is running: 4 hours and 48 hours

The official figures come from FoodSafety.gov, part of the USDA: **a refrigerator keeps food safe for up to 4 hours** if you do not open it, and **a full freezer holds for about 48 hours (24 if half full)**. The discard threshold: any perishable food —meat, poultry, fish, eggs, leftovers— that has been **at 4 °C (40 °F) or above for 2 hours or more must be thrown out**. A full freezer holds twice as long as a half-full one, so filling the empty space with bottles of water before a forecast storm is money saved. And the line every agency closes with: **"when in doubt, throw it out"**. Do not taste it to find out.

- Keep the refrigerator and freezer **closed**: every time you open one, you waste hours of stored cold.
- **Throw out any food that has touched floodwater**, even if the container looks intact. This is an explicit Ready.gov instruction.
- Keep a manual can opener. It is the item people forget most, and without it your pantry is useless.
- If you buy bottled water, keep it **sealed in its original container**, in a cool, dark place.

Source: CDC — Centers for Disease Control and Prevention (U.S.) — How to Create and Store an Emergency Water Supply. <https://www.cdc.gov/water-emergency/about/how-to-create-and-store-an-emergency-water-supply.html>

Source: Ready.gov · FEMA (U.S.) — Water. <https://www.ready.gov/water>

Source: FoodSafety.gov · USDA and HHS (U.S.) — Food Safety During a Power Outage. <https://www.foodsafety.gov/food-safety-charts/food-safety-during-power-outage>

Source: Ready.gov · FEMA (U.S.) — Food. <https://www.ready.gov/food>

## Power and communications

### The generator rule: 6 meters, no negotiating

The CPSC does not soften it: **"using a generator indoors CAN KILL YOU IN MINUTES"**, because **"generator exhaust contains carbon monoxide, a poison you cannot see or smell"**. The official distance, repeated by the CDC and CPSC: **only outdoors, more than 20 feet (6.1 meters) from any window, door, or vent**. The same goes for pressure washers, charcoal grills, and camp stoves. A battery-powered carbon monoxide detector is cheap and the only thing that warns you in time.

**When the cell network is overloaded: text, do not call**

The joint FCC and FEMA guide explains why: **"text messages may get through when your call does not"**, even if delivery is delayed when the network is congested. And it asks for something almost no one does: **"limit non-emergency calls"**, because every call takes up space that emergency communications need. Also save a contact under the name **"ICE"** (In Case of Emergency), the convention rescue personnel look for on someone else's phone.

**How to stretch your battery**

The same guide recommends **lowering screen brightness and turning off apps** to conserve charge. In an emergency your phone stops being entertainment and becomes your only line to the outside world: treat it like your water supply.

**The battery-powered radio is still irreplaceable**

The FCC and FEMA recommend **a battery-powered radio or a portable television** to follow emergency bulletins during power outages. It is the only channel that depends on neither your electricity nor the cell network.

**The alerts you already have and did not know about**

In the United States, **Wireless Emergency Alerts** are free messages that go straight to your phone for severe weather, AMBER alerts, and threats to safety in your area. Two things worth knowing: **you do not need to sign up —phones have supported them since 2012— and they are not affected by network congestion**, so they get through when calls no longer do. Find out what the equivalent system is in your country, and do not mute it.

- Have at least one light source that does not depend on the grid: a battery-powered or hand-crank flashlight, or a rechargeable lamp.
- Charge phones and backup batteries **before** the forecast event arrives, not after the power is already out.
- Keep a list of important phone numbers **on paper**: if your phone dies, your contacts die with it.
- Agree with your family that after an emergency **everyone texts the same contact** instead of calling each other.

Source: CPSC — Consumer Product Safety Commission (U.S.) — What to Know About Portable Generators and Carbon Monoxide. [https://www.cpsc.gov/s3fs-public/468-WhattoKnowGenerators\\_2022.pdf](https://www.cpsc.gov/s3fs-public/468-WhattoKnowGenerators_2022.pdf)

Source: FCC and FEMA (U.S.) — Tips for Communicating During an Emergency. [https://www.fcc.gov/sites/default/files/fcc-fema\\_tips\\_for\\_communicating\\_during\\_an\\_emergency.pdf](https://www.fcc.gov/sites/default/files/fcc-fema_tips_for_communicating_during_an_emergency.pdf)

Source: FEMA (U.S.) — Wireless Emergency Alerts (fact sheet). <https://www.ready.gov/sites/default/files/2020-08/wea-fact-sheet.pdf>

## Health and special needs

This is the section that decides who has a hard time and who has a dangerously hard time. An emergency does not suspend diabetes, high blood pressure, pregnancy, or dependence on an oxygen concentrator: **what gets cut off is access to the pharmacy, the clinic, and electricity**. Everything that follows needs to be prepared beforehand, because once the emergency hits, there is no more room.

**1. Keep a reserve of your medications, and know which ones hold up**

Ready.gov calls for **a several-day supply of prescription medications**. For those that need refrigeration, the CDC is blunt: **once the power has been out for a day or more, discard any medication that requires refrigeration**, unless its label says otherwise.

**2. The insulin exception, worth knowing word for word**

The FDA documents that insulin in the manufacturer's original vials or cartridges —opened or unopened— **can stay unrefrigerated between 15 and 30 °C (59 and 86 °F) for up to 28 days and still work**. It loses effectiveness at extreme temperatures, and the longer the exposure, the less effective it becomes. In an emergency **"you may still need to use insulin that was stored above 30 °C"** —that is better than not using it at all— but as soon as proper storage is available again, those vials **should be discarded and replaced**.

### 3. If someone depends on electric medical equipment, there is one step almost no one takes

Ready.gov says it explicitly: you can **ask your power company to put you on a priority list for service restoration**. That step is free, can be done on any ordinary day, and changes the order in which you get reconnected. Add a backup battery for an electric wheelchair and for any assistive device, and talk with your doctor about how to keep the equipment running during a power outage.

### 4. Keep a copy of medical information, not just the pills

A list of medications with dosages, allergies, diagnoses, doctors' contact information, and —for infants— the vaccination record. A prescription bottle cannot always be refilled at a pharmacy in another city; a written list can solve that.

### Pregnancy and newborns

The CDC calls for **prenatal vitamins and other medications** in the kit, plus supplies in case delivery happens without being able to reach a hospital: clean towels, clean sharp scissors, a bulb syringe, gloves, two clean white shoelaces to tie the cord, clean sheets, sanitary pads, soap or alcohol, and garbage bags. For infants: diapers, wipes, ointment, bottles, and formula. One detail that matters: **ready-to-feed formula is the safest option in an emergency**, because it does not need to be mixed with water and comes in sterile, single-use containers.

### Disability, reduced mobility, and older adults

Ready.gov stresses **planning accessible transportation in advance** for evacuating or getting around, and including a service or support animal with its food, water, and supplies. That plan should be worked out with specific, named neighbors, not left vague.

### The blow that comes later: mental health

The CDC names the normal reactions after a disaster —**fear, anger, sadness, worry, numbness, frustration, trouble sleeping, or nightmares**— and recommends taking care of your body, staying in touch with other people, and taking breaks from the news. In the United States and its territories, the **Disaster Distress Helpline is available 24 hours a day: 1-800-985-5990**, with service in Spanish. Asking for help here is not weakness: it is part of recovery, just like repairing the roof.

Source: Ready.gov · FEMA (U.S.) — People with Disabilities. <https://www.ready.gov/es/discapacidad>

Source: CDC — Centers for Disease Control and Prevention (U.S.) — What to Do to Protect Yourself During a Power Outage.

<https://www.cdc.gov/natural-disasters/response/what-to-do-protect-yourself-during-a-power-outage.html>

Source: FDA — U.S. Food and Drug Administration — Information Regarding Insulin Storage and Switching Between Products in an Emergency.

<https://www.fda.gov/drugs/emergency-preparedness-drugs/information-regarding-insulin-storage-and-switching-between-products-emergency>

Source: CDC — Centers for Disease Control and Prevention (U.S.) — Emergency Kit Checklist: Pregnant Women, Infants, and Children.

<https://www.cdc.gov/children-and-school-preparedness/resources/emergency-kit-checklist-pregnant-women-infants-and-children.html>

Source: CDC — Centers for Disease Control and Prevention (U.S.) — Coping With Disaster or Traumatic Event.

[https://www.cdc.gov/natural-disasters/media/pdfs/2024/08/coping\\_with\\_disaster\\_2\\_english.pdf](https://www.cdc.gov/natural-disasters/media/pdfs/2024/08/coping_with_disaster_2_english.pdf)

## Home and belongings

### Photograph before you throw anything away. It is the rule that recovers the most money

The official insurance instruction is literal: **"photograph and video the interior and exterior of your property, taken before you throw anything away"**. After that, you need to **report the loss to your insurer right away**, and **keep receipts, statements, and contractor invoices**, which is what ensures your claim payment arrives on time. Cleaning up before documenting is, in practice, giving up your claim.

**1. Before you go back in: look, smell, and listen from outside**

The CDC lays it out this way: **if you smell gas or suspect a leak, shut off the main valve, open all the windows, and get out immediately.** If there is standing water inside and you can cut the power from a dry spot, do it. And one simple warning that prevents explosions and fires: **use battery-powered flashlights, not candles, gas lanterns, or torches.**

**2. Ventilate before you settle in**

The CDC recommends going in briefly to open doors and windows, and **letting the house air out for at least 30 minutes** before staying inside.

**3. Shutting off utilities: when to do it, and the mistake you cannot make**

**Gas** has a rule with no exceptions: if you shut it off for any reason, **only a qualified professional can turn it back on. Never turn it back on yourself.** **Electricity** is shut off by switching off the individual circuits first and the main breaker last—the order matters, because an electrical spark can ignite gas if there is a leak—. **Water** should be shut off if pipes may have cracked, because that contaminates the house supply, and should not be turned back on until authorities confirm it is safe to drink.

**4. Go back only when authorities say it is safe**

It sounds obvious, and it is the instruction people break most often: **go back home only when authorities say it is safe.** Structural damage is not always visible from the street.

- Make a photo inventory of what is in each room today: it takes twenty minutes and is worth its weight in gold for a claim.
- Keep that inventory and your policies **outside the house**—in the cloud or with a family member—because a file that gets soaked along with the house is useless.
- If you have to leave, take your documents with you, not your furniture.
- Do not sign anything with a contractor while you are in shock: check the money section for the warning signs of fraud.

Source: FEMA · NFIP (U.S.) — Starting Your Recovery (National Flood Insurance Program fact sheet).

[https://agents.floodsmart.gov/sites/default/files/media/document/2025-07/fema-nfip-starting-your-recovery\\_fact-sheet-10-2021.pdf](https://agents.floodsmart.gov/sites/default/files/media/document/2025-07/fema-nfip-starting-your-recovery_fact-sheet-10-2021.pdf)

Source: CDC — Centers for Disease Control and Prevention (U.S.) — Safety Guide for Reentering a Flooded Home.

<https://cdc.gov/floods/safety/reentering-your-flooded-home-safety.html>

Source: Hawaii Department of Human Services (U.S.) — Utility Shutoff and Safety (official emergency preparedness guide).

<https://humanservices.hawaii.gov/communications/are-you-ready/utility/>

## Money and income

**Cash in small bills: the detail people discover too late**

Ready.gov recommends it for a concrete reason: **"it is important to keep small bills on hand because ATMs and credit cards may not work during a disaster"**, right when you need to buy supplies, fuel, or food. No power means no card reader, and without a card reader a large bill is useless if no one has change.

**The documents you need to protect today**

The official recommendation is to keep insurance policies, deeds, property records, and other important papers **in a safe place outside the house.** FEMA publishes the **Emergency Financial First Aid Kit** for this, organized into four sections: household identification, financial and legal documentation, medical information, and contacts. Its rule for paper: **a fireproof and waterproof box or safe**, a bank safe-deposit box, or in the hands of someone you trust. For digital files: **password-protected files** on an external drive or in secure storage outside the home. And if you pay everything online, print your account records periodically.

### An emergency fund, even a small one

The CFPB avoids magic formulas: **"the amount you need depends on your situation"**, but **"even a small amount can provide some financial security"**. Its underlying argument is the one that matters: without that cushion, a single unexpected expense **can grow far larger than the original bill through interest and fees**, because it forces you to rely on credit.

### After the disaster come the people who rob you with paperwork

The CFPB describes the exact pattern: **"be wary of contractors who go door to door and of people who offer unsolicited 'opportunities' or use high-pressure tactics to force you to decide on the spot"**. Its concrete rules: **never pay by wire transfer, gift card, cryptocurrency, or cash**, because that makes it harder to get your money back; **do not make the final payment until the work is finished to your satisfaction**; and always ask **"can you show me your ID and your contractor's license?"** and **"can you give me three recent references from this area?"**. One fact that cuts off many scams at the root: **no FEMA worker or federal or state official ever asks for or accepts money**. Scammers pose as government employees, insurance adjusters, police officers, or bank employees.

Source: Ready.gov · FEMA (U.S.) — Financial Preparedness. <https://www.ready.gov/financial-preparedness>

Source: FEMA · Operation Hope (U.S.) — Emergency Financial First Aid Kit (EFFAK).  
[https://www.fema.gov/sites/default/files/documents/fema\\_effak-toolkit.pdf](https://www.fema.gov/sites/default/files/documents/fema_effak-toolkit.pdf)

Source: CFPB — Consumer Financial Protection Bureau (U.S.) — How to Avoid Scams and Fraud After a Disaster.  
<https://www.consumerfinance.gov/ask-cfpb/how-do-i-avoid-scams-and-fraud-after-a-disaster-en-1529/>

## What you can sell

A tsunami leaves a different kind of damage than a rain flood: the water arrives with force, drags things along, and **leaves salt, mud, and heavy debris well inland**. The demand it creates resembles a flood's, with two additions of its own: the dragging of large objects and damage from salt water.

- **Debris removal and clearing of objects swept inland:** furniture, vehicles, boats, and construction debris.
- **Mud and salt cleanup** indoors, in yards, and on streets.
- **Drying out homes and mold control**, on the same 24-to-48-hour clock as any flood.
- **Washing and recovering belongings** that sat in salt water, which corrodes metal and electronics.
- **Cleaning of cisterns and rooftop tanks** left contaminated with seawater.
- **Drinking water and prepared food** while the network is down.
- **Signage and evacuation routes:** paint, signs, and maps for coastal neighborhoods and businesses — the preventive work.

### Raising prices because people are desperate can be illegal

When a state of emergency is declared, many countries limit by law how much the price of basic goods can rise. In **California**, the limit is **10% above the pre-emergency price** for 30 days —and **180 days for repair and cleanup services**—, with penalties of up to one year in jail and a \$10,000 fine. **Texas** does not set a fixed percentage but penalizes "exorbitant" pricing with fines of up to \$20,000 per violation. In **Mexico**, the Ley Federal de Protección al Consumidor (Federal Consumer Protection Law) requires sellers to honor the price offered and any maximum prices set by authorities, and PROFECO can impose fines. In **Brazil**, the Código de Defesa do Consumidor (Consumer Defense Code) prohibits "raising a price without just cause." Charging a fair price for hard work is legitimate; taking advantage of desperation is not.

Source: ILO — International Labour Organization — Labour Overview of Latin America and the Caribbean 2025 (executive summary).  
[https://www.ilo.org/sites/default/files/2025-12/Executive%20Summary\\_Labour%20Overview%202025\\_LAC\\_ILO.pdf](https://www.ilo.org/sites/default/files/2025-12/Executive%20Summary_Labour%20Overview%202025_LAC_ILO.pdf)

Source: PROFECO — Federal Consumer Protection Agency (Mexico) — Ley Federal de Protección al Consumidor (Federal Consumer Protection Law), articles 7, 8, and 128. [https://www.profeco.gob.mx/juridico/pdf/Ley\\_fed\\_protec\\_consum.pdf](https://www.profeco.gob.mx/juridico/pdf/Ley_fed_protec_consum.pdf)

Source: California Attorney General (USA) — Price gouging during declared emergencies. <https://oag.ca.gov/consumers/pricegougingduringdisasters>

Source: Presidency of the Republic (Brazil) — Código de Defesa do Consumidor (Consumer Defense Code), art. 39, X (raising prices without just cause). [https://www.planalto.gov.br/ccivil\\_03/leis/l8078compilado.htm](https://www.planalto.gov.br/ccivil_03/leis/l8078compilado.htm)

## Businesses and self-employment

It helps to start with one figure to size up what we're talking about: according to the ILO, informality **affects nearly half of the employed population of Latin America and the Caribbean, around 47%**, with huge differences between countries — under 30% in Uruguay and Chile, over 70% in Bolivia and Peru. For millions of families in the region, "looking for a job" and "starting something on your own" are the same sentence. What follows is not a promise of income: it is a map of what people actually do when a crisis hits, with the requirements and the risks laid out plainly.

### Cleanup and drying after salt water

It's the job with the most demand, and it's worth understanding well: salt doesn't go away on its own — whatever you want to save has to be **rinsed with fresh water**, then dried. NIOSH's clock applies the same as in a flood — remove or dry water-damaged material within **24 to 48 hours** to keep mold from taking hold — and so does the EPA's limit: above **10 square feet** of mold, or if the water came from sewage, the job is for an experienced professional.

### Removal of heavy debris and objects swept inland

A tsunami moves things a flood doesn't: vehicles, boats, tanks. That work requires equipment and coordination with the local authority, which usually decides where each type of debris is dropped off. If you don't have machinery, there's plenty of work in sorting and manual hauling, wearing the protective gear OSHA documents: boots, gloves, a hard hat, and eye and respiratory protection.

### Evacuation-route signage — the preventive business

It's the most useful and the least attended to. Painting and posting evacuation-route signs, marking the safe elevation line, and drawing simple maps for neighborhoods, hotels, schools, and coastal businesses. Sell it to neighborhood committees, chambers of commerce, and tourism businesses, which have a direct interest in being able to say their area is signposted. And unlike everything else on this list, this work **saves lives before anything happens**.

### Three jobs you should NOT improvise

**Mold:** the EPA sets the threshold at **10 square feet (about 3 ft × 3 ft)**; above that, or if the water came from sewage, it recommends hiring an experienced professional. Even below that threshold, you need an **N-95** respirator, long gloves, and non-vented goggles. **Chainsaw:** NIOSH is unequivocal that only a trained person should use one, and OSHA warns about kickback from the tip. **Electrical and gas lines:** OSHA instructs you to assume every downed line is energized, and NIOSH advises staying **10 feet (3 meters)** away from them. That work belongs to certified personnel, not on-the-job learning.

### United States — SBA disaster loans

For areas with a declared disaster. The **Economic Injury Disaster Loan (EIDL)** provides working capital for affected small businesses and nonprofit organizations; the **physical damage loan** covers losses not covered by insurance. Combined cap of **\$2 million**, interest **not exceeding 4%** if you cannot obtain credit elsewhere, terms of up to 30 years, and the first payment deferred 12 months. There is also a line for homeowners (up to \$500,000) and for renters for personal property (up to \$100,000).

### Mexico — what actually exists today

**FONDEN stopped taking on new commitments on January 1, 2021.** What operates today in emergencies is **PAEAN**, run by Civil Protection, and it is worth knowing exactly what it is and is not: it delivers **relief supplies** — food kits, water, blankets, roofing sheets, cleaning materials — when a state's own capacity is overwhelmed. **It is not a reconstruction fund or a loan for your business.** For capital, look at state, municipal, or development-bank programs, always verifying on the official website: fraud schemes that use its name circulate around these programs.

### Brazil — Pronampe for micro and small businesses

A credit line for **microenterprises** (annual revenue up to 360,000 reais) and **small businesses** (from 360,000 to 4.8 million). The amount can reach up to **60% of the previous year's gross revenue** for businesses with more than one year in operation, and up to 50% for new ones. The maximum rate is the SELIC rate plus up to 6% per year.

Source: EPA — Environmental Protection Agency (USA) — Mold Cleanup in Your Home (10-square-foot threshold).

<https://www.epa.gov/mold/mold-cleanup-your-home>

Source: OSHA — Occupational Safety and Health Administration (USA) — Keeping Workers Safe during Disaster Cleanup and Recovery (FS-3698).

[https://www.osha.gov/sites/default/files/publications/OSHA\\_FS-3698.pdf](https://www.osha.gov/sites/default/files/publications/OSHA_FS-3698.pdf)

Source: NIOSH — National Institute for Occupational Safety and Health (USA) — Hurricane and Flood Key Messages (Publication 2025-106).

<https://www.cdc.gov/niosh/docs/2025-106/pdfs/2025-106.pdf>

Source: SBA — Small Business Administration (USA) — Economic Injury Disaster Loans.

<https://www.sba.gov/funding-programs/disaster-assistance/economic-injury-disaster-loans>

Source: SSPC — National Civil Protection Coordination (Mexico) — Guidelines for the Program for Emergency Response to Natural Hazards (PAEAN).

<https://sidof.segob.gob.mx/notas/docFuente/5626632>

Source: Federal Government (Brazil) — Novo Pronampe — credit for micro and small businesses.

<https://www.gov.br/memp/pt-br/programa-acredita/novo-desenrola-brasil/novo-pronampe>

## Related articles

**What documented tsunamis teach us.** The Americas hold the most striking record of all: the largest earthquake ever measured happened in Chile.

### Valdivia, Chile, May 22, 1960 — the tsunami that crossed the Pacific

The **magnitude 9.5** earthquake is **the largest earthquake ever instrumentally recorded**. Deaths in Chile from both events are estimated **at between 490 and 5,700**, according to NOAA. But what sets this case apart is its reach: the tsunami killed **61 people in Hawaii**, left at least **21 dead in the Philippines**, and reached **Japan almost a day later**, where it destroyed close to 3,000 homes. **The lesson:** a distant tsunami can kill on the other side of the ocean a full day later. If your country issues a warning for an earthquake that happened far away, that warning is real.

### Queule, Chile, 1960 — the natural sign that saved a family

USGS documents in its survival circular that, in Queule, Vitalia Llanquimán was warned by a man on horseback that **the sea had pulled back from the coast**. Her husband read it for what it was — a tsunami warning — and they climbed with the children to the hill, where they survived. Another family in the same town stayed on low ground even as their neighbors were already evacuating, and lost members. **The lesson:** knowing how to read the sign and acting without waiting for confirmation is, literally, the difference.

### Onagawa, Japan, 1960 — an entire town warned in time

The same USGS document records the case of firefighter Kimura Kunio, who noticed an abnormal movement of the water in the harbor before dawn and **alerted the town**. Residents reached high ground before the first big wave, and **there were no deaths**. The document also confirms the pattern this guide keeps repeating: the second wave was bigger than the first, and **the biggest one arrived even later**.

### The scale of the risk, in official numbers

NOAA records the major recent events: **Chile 2010**, magnitude 8.8 earthquake, **558 dead** from the earthquake and tsunami combined; **Japan 2011**, magnitude 9.0, **15,890 dead and 2,590 missing**; **Indian Ocean 2004**, magnitude 9.1, **227,898 dead or missing**. These are combined earthquake-and-tsunami figures, exactly as the source publishes them.

Related guides on this site:

- Earthquake — what you have to survive first, and which is also the warning.
- Flood — cleanup and drying out after the water.
- Infrastructure crisis — how to make water safe when the network fails.

- Combined crisis — earthquake, tsunami, and power outage chained together, which is how it actually happens.

Source: NOAA / NCEI — National Centers for Environmental Information (USA) — On This Day: 1960 Chilean Earthquake and Tsunami.  
<https://www.ncei.noaa.gov/news/day-1960-chilean-earthquake-and-tsunami>

Source: NOAA / NCEI — National Centers for Environmental Information (USA) — Recent and Significant Tsunami Events.  
<https://www.ncei.noaa.gov/products/natural-hazards/tsunamis-earthquakes-volcanoes/tsunamis/recent-significant-events>

Source: USGS — U.S. Geological Survey — Surviving a Tsunami — Lessons from Chile, Hawaii, and Japan (Circular 1187).  
<https://pubs.usgs.gov/circ/c1187/>

## Frequently asked questions

### What are the signs that a tsunami is coming?

The U.S. National Weather Service points to three natural signs: feeling a strong or long earthquake, seeing the ocean behave strangely — rising like a fast flood, appearing as a wall of water, or pulling back suddenly — and hearing a loud roar from the ocean. If you notice any of these, the instruction is not to wait for official warnings and to move immediately to high ground or inland.

### How high or how far do you need to go to be safe from a tsunami?

FEMA's official fact sheet indicates reaching 30 meters (100 feet) above sea level, or at least 1.6 kilometers (one mile) inland. If the area has official evacuation signage, it's best to follow it, because it was mapped using the local inundation study.

### Is it better to evacuate a tsunami on foot or by car?

On foot, whenever possible. NOAA recommends planning your evacuation on foot because roads can become impassable due to damage, closures, or traffic jams — something especially likely after the earthquake that caused the tsunami.

### When can I go back home after a tsunami?

Only when the authorities authorize it. The National Weather Service warns that the first wave may not be the last or the biggest, that the time between waves ranges from five minutes to two hours, and that the danger can last for hours or days. Going back too soon is the mistake that causes the most casualties.

### How much water should you store per person for an emergency?

The CDC recommends at least 1 gallon (3.8 liters) per person per day for 3 days. Ready.gov warns that children, nursing mothers, and sick people may need more, and that with very high temperatures water needs can double. Stored water should be replaced every 6 months.

### How long does food last in the refrigerator during a power outage?

According to FoodSafety.gov, part of the USDA, a refrigerator keeps food safe for up to 4 hours if it stays closed, and a full freezer for about 48 hours (24 hours if half full). Any perishable food that has been at 4 °C or above for 2 hours or more should be discarded. The official rule is: when in doubt, throw it out.

### How far from the house should a portable generator be placed?

Only outdoors, more than 20 feet (6.1 meters) from any window, door, or vent, according to the CDC and CPSC. The CPSC warns that using a generator indoors can kill in minutes, because its exhaust contains carbon monoxide, a poison you cannot see or smell. The same rule applies to pressure washers, charcoal grills, and camp stoves.

### Is it better to call or text during an emergency?

Text. The joint FCC and FEMA guide explains that text messages may get through when a call does not, even if there is a delay when the network is congested, and it asks people to limit non-emergency calls so they do not tie up the network that emergency services need.

**Does insulin go bad if the power goes out?**

Not right away. The FDA documents that insulin in the manufacturer's original vials or cartridges, opened or unopened, can stay unrefrigerated between 15 and 30 °C for up to 28 days and still work, though it loses effectiveness at extreme temperatures. In an emergency it is better to use it than to go without, but as soon as proper storage is available again, those vials should be discarded and replaced.

**What should you do if someone at home depends on medical equipment that needs electricity?**

Ready.gov recommends asking the power company to put your address on a priority list for service restoration, keeping a backup battery for electric wheelchairs and assistive devices, and talking with your doctor about how to keep the equipment running during a power outage. This is something to arrange beforehand, not during the emergency.

**Can you start cleaning your house after a disaster?**

Before you throw anything away or clean anything, you need to photograph and video the interior and exterior of the property and report the loss to your insurer right away, according to the official guide from FEMA's National Flood Insurance Program. You should also keep receipts, statements, and contractor invoices. Cleaning before documenting usually means losing the claim.

**Can you turn the gas back on yourself?**

No. The official emergency preparedness guide is explicit: if you shut off the gas for any reason, only a qualified professional can turn it back on. Also, when shutting off electricity, switch off the individual circuits first and the main breaker last, because an electrical spark can ignite gas if there is a leak.

**Why should you keep cash on hand for an emergency?**

Because ATMs and card readers depend on electricity and network access, and they tend to stop working right when you need to buy water, fuel, or food. Ready.gov recommends keeping a small amount of cash at home, in a safe place and in small bills, since change may not be available during an emergency.

**How can you tell if a contractor offering to repair your house is a scam?**

The CFPB flags as red flags going door to door, offering unsolicited opportunities, or pressuring you to decide on the spot. It recommends never paying by wire transfer, gift card, cryptocurrency, or cash, not making the final payment until the work is finished to your satisfaction, and asking for ID, a contractor's license, and three recent references from the area. Also, no FEMA worker or federal or state official ever asks for or accepts money.

**What was the largest earthquake in history, and what tsunami did it cause?**

The Valdivia, Chile earthquake of May 22, 1960, magnitude 9.5, is the largest earthquake ever instrumentally recorded according to NOAA. Its tsunami crossed the Pacific: it killed 61 people in Hawaii, at least 21 in the Philippines, and reached Japan almost a day later, destroying close to 3,000 homes. In Chile, deaths from both events are estimated at between 490 and 5,700.