

Structural Entrapment Accident Manual

1. Immediately After Building Collapse

Warning signs of collapse include:

- Cracks or subsidence on the building floor.
- Twisted or jammed doors and windows.
- Floor columns rising or shifting.
- Web-like cracks around pillars or sudden sagging of floor surfaces.
- Smell of gas, smoke, or unusual odors, accompanied by sudden gusts of wind inside the building.
- Explosive noises or continuous snapping sounds of rebar.

These are indicators of potential collapse; evacuate immediately.

In cases of major flooding or earthquakes, local authorities will issue warnings and disaster broadcasts via TV, radio, and internet. Continuously monitor such information and respond swiftly.

2. When Inside a Collapsed Building

- Stay calm, look for escape routes.
- Take shelter in reinforced spots (stairwells, lobbies) before moving with injured to safety.
- Know escape tools (ropes, flashlights) in advance.
- Evacuate elderly, children, women first, led by a capable adult.
- Protect your head, move quickly and orderly.
- Don't move obstacles unless necessary; beware of further collapse.
- If trapped, cover head/face, ration food/water, and move fingers/toes to keep circulation.
- Signal rescuers calmly with flashlight, knocks, or phone (119). Save battery.
- Stay near windows or sturdy furniture in low posture.
- Avoid broken stairs/elevators; never use flames if gas leak suspected—use only flashlights.

3. During a Building Collapse Accident

- Evacuate immediately to designated shelters under the control of the Local Disaster and Safety Countermeasures Headquarters.
- If evacuation to a shelter is impossible due to time constraints, move to the nearest safe area and request rescue from authorities (Disaster HQ, fire department, or police).
- Once in a safe zone, remain until official guidance is provided.
- If family contact is lost, verify their status through Disaster HQ or authorities.

4. Initial Hazard Control (Gas, Electricity, Fire)

- If gas odor, hissing sounds, or broken pipes are detected, stop using flames, matches, or electrical switches.
- Do not touch electrical devices with wet hands or when standing on waterlogged floors. Avoid exposed wires.
- If smoke or burning smells are present, move in a low posture with mouth/nose covered by a wet cloth or mask, evacuating against the wind.
- Before opening doors, check heat and smoke at door seams. Do not open if hot.
- When using a fire extinguisher, follow **PASS**: Pull pin – Aim at base – Squeeze handle – Sweep side to side. If flames spread to the ceiling, withdraw immediately and report.

5. Long-Term Survival in Entrapment (Air, Water, Warmth, Strength)

- Stay near windows, cracks, or vents for air; cover nose/mouth with cloth if dust is heavy.
- Ration water and food; boil or purify if possible.
- Prioritize body heat retention: cover in layers and use newspapers/boxes as insulation against the ground.
- Conserve energy but move fingers and joints every 60–90 minutes to maintain blood flow.
- Use flashlight/batteries sparingly and systematically for signaling, movement, or inspection.

6. Communication, Reporting, and Location Signaling

- Call **119** with details: building name, floor, landmarks, sounds heard nearby.
- If communication is unstable, switch phone to airplane mode and periodically reconnect to save battery.
- If contact is impossible, signal location by tapping pipes or walls at regular intervals (e.g., every 10 seconds), flashing lights, or blowing a whistle three times repeatedly.
- Once in contact with rescuers, assign a representative to briefly report: number of people, injuries, hazards, and actions already taken, minimizing duplicate communication.

7. Immediate First Aid (On-Site Limitations)

- For heavy bleeding, apply **direct pressure** first, wash lightly with clean water, and cover with sterile dressing. Elevate limbs above heart level.
- If no response and abnormal breathing: start CPR following **119** guidance and use AED if available.
- For shock (pale, sweaty, rapid pulse): lay patient flat, keep warm; if breathing difficulty, raise upper body slightly.
- For crush injuries under debris: do not remove weight suddenly—wait for rescue team to prevent crush syndrome.
- Immobilize fractures/sprains in current position with cloth or splints; move gently.
- For burns, toxic gas exposure, or eye injuries: prioritize cooling, rinsing, and warmth—do not burst blisters or remove embedded objects.

8. Criteria for Attempting Self-Escape (Go/No-Go)

- Attempt escape only when:
 - Fire, smoke, or gas leakage spreads.
 - Clear safe route is visible via light, markers, airflow, or rescuer voices.
- Do **not** attempt escape if:
 - Passage is unclear, smoke is dense, further collapse noises continue, or injuries/weakness hinder movement.

If evacuation is decided:

- Move in pairs or groups, linking each other with ropes or clothing.
- Agree on exit, detour, and assembly point beforehand.
- Before opening doors, check for heat and smoke at the top.
- Move low along walls, marking paths with arrows, time, and number of evacuees.
- For vertical movement (stairs/ladders), proceed one at a time, checking handrails.

9. Cooperation When Rescuers Arrive

- Designate one person to brief rescuers: number of people, injuries, location, gas/electricity risks, and actions taken.
- Follow rescue team's **control zones (Hot, Warm, Cold zones)** and avoid unauthorized movement.
- Before transport, share patient identity, symptoms, medications, and allergies.
- During equipment operation or debris movement, remain quiet so verbal commands are heard.
- Photography or recording is permitted only under rescue team control.

10. Post-Evacuation Actions and Recovery

- Once in a safe zone, recount all people and monitor even minorly injured individuals for delayed symptoms (inhalation injury, shock, hypothermia).
- Do not re-enter until gas, electricity, and water systems are restored and safety inspections are complete.
- Wash wounds, replace dressings, maintain strict hand hygiene, and avoid contact with contaminated water or debris. Pregnant women and infants must undergo screening.
- For psychological reactions (hyperventilation, anxiety, confusion): provide a quiet space, warmth, and breathing coaching; connect to professional counseling if needed.
- Finally, record essential accident details (time, location, casualties, damages, actions taken) for submission to disaster authorities and insurance.