



AVALANCHE RESCUE HANDBOOK

Field Guide for
Avalanche Emergencies

Andy Garcia
Niseko Gates



Essential rescue procedures, survival
priorities and self-rescue techniques.

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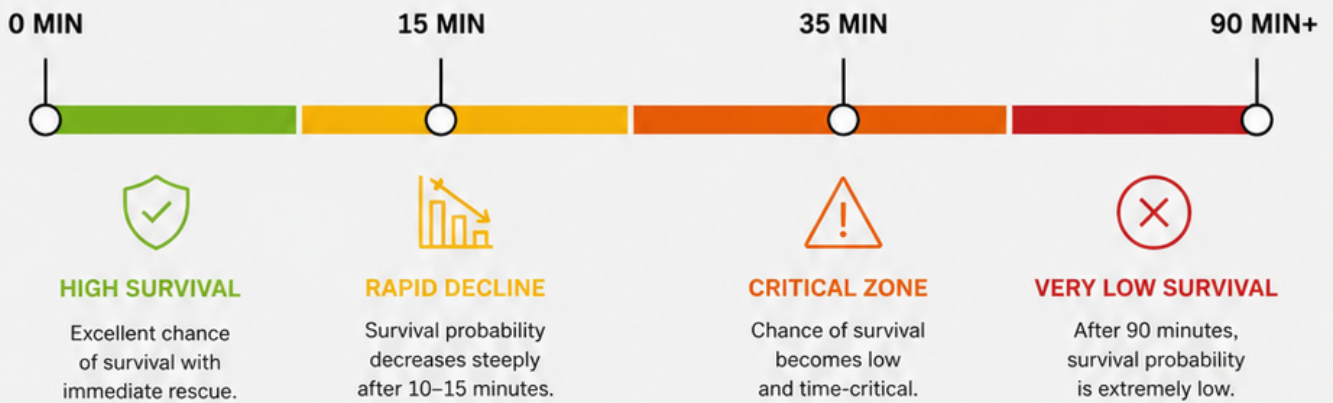


SURVIVAL TIMELINE

In an avalanche, every minute counts. Research shows that the chance of survival decreases dramatically as burial time increases.

The faster the rescue, the higher the chance of survival.

THE FIRST 15 MINUTES MATTER



Source: Data from Canadian (n=301) and Swiss (n=946) avalanche incidents.

KEY FACTS



Time is the most critical factor.



Immediate rescue dramatically improves survival.



Burial duration is directly linked to mortality.



SINGLE RESCUER COMPANION RESCUE



A calm, methodical approach gives your companion the best chance of survival.



SAFETY FIRST

Always assess the scene for ongoing avalanche hazard before you start.

STEP 01



LAST SEEN POINT

Identify the exact point where you last saw your companion before they were caught. Mark it clearly.



STEP 02



SCENE SAFETY

Quickly assess the slope, weather and terrain. Ensure it is safe to proceed. Manage any ongoing hazards.



STEP 03



SIGNAL SEARCH

Set your beacon to SEARCH. From the last seen point, move downhill in a zigzag pattern. Keep your beacon low and move steadily.



ZIGZAG PATTERN

Maintain constant spacing based on your beacon's search strip width.

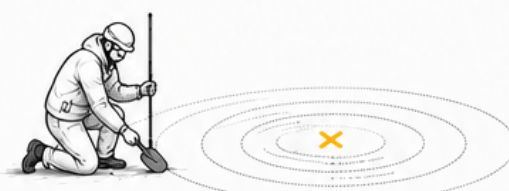


STEP 04



FINE SEARCH + PROBE SEARCH

When you get a strong signal, slow down and follow it. Switch to fine search. Probe in a spiral pattern, 25 cm intervals, until you make contact.



PROBE PATTERN

Spiral pattern
25 cm intervals

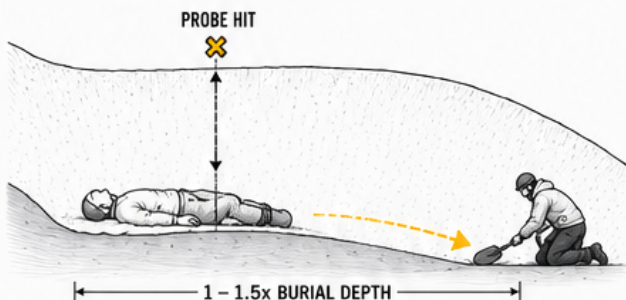


STEP 05



STRATEGIC EXCAVATION

Start digging 1 – 1.5 times the burial depth below the probe hit. Dig a ramp from the bottom up towards the probe hit. Remove snow from below and to the side, creating a platform. Extract your companion horizontally.



- 1 Probe hit is directly above the victim.
- 2 Burial depth (measure vertically).
- 3 Start digging 1 – 1.5x burial depth below the probe hit.
- 4 Dig a ramp up towards the probe hit.
- 5 Extract horizontally.

STEP 06



AIRWAY & FIRST AID

Check responsiveness. Open the airway and assess breathing and circulation. Treat for hypothermia. Prepare for evacuation.



AIRWAY

Open airway and check



BREATHING

Assess breathing and oxygenate



CIRCULATION

Check pulse and control bleeding




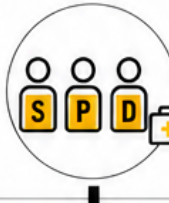
HYPOTHERMIA


Protect from cold and insulate


MULTIPLE VICTIM RESCUE

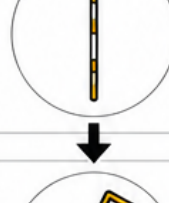
Efficient organization and role allocation dramatically increase rescue speed and survival rates.

01  **TEAM LEADER**
Takes control, assesses the scene and coordinates all actions.

02  **ASSIGN ROLES**
Assign roles based on skills and available resources. Communicate the plan.

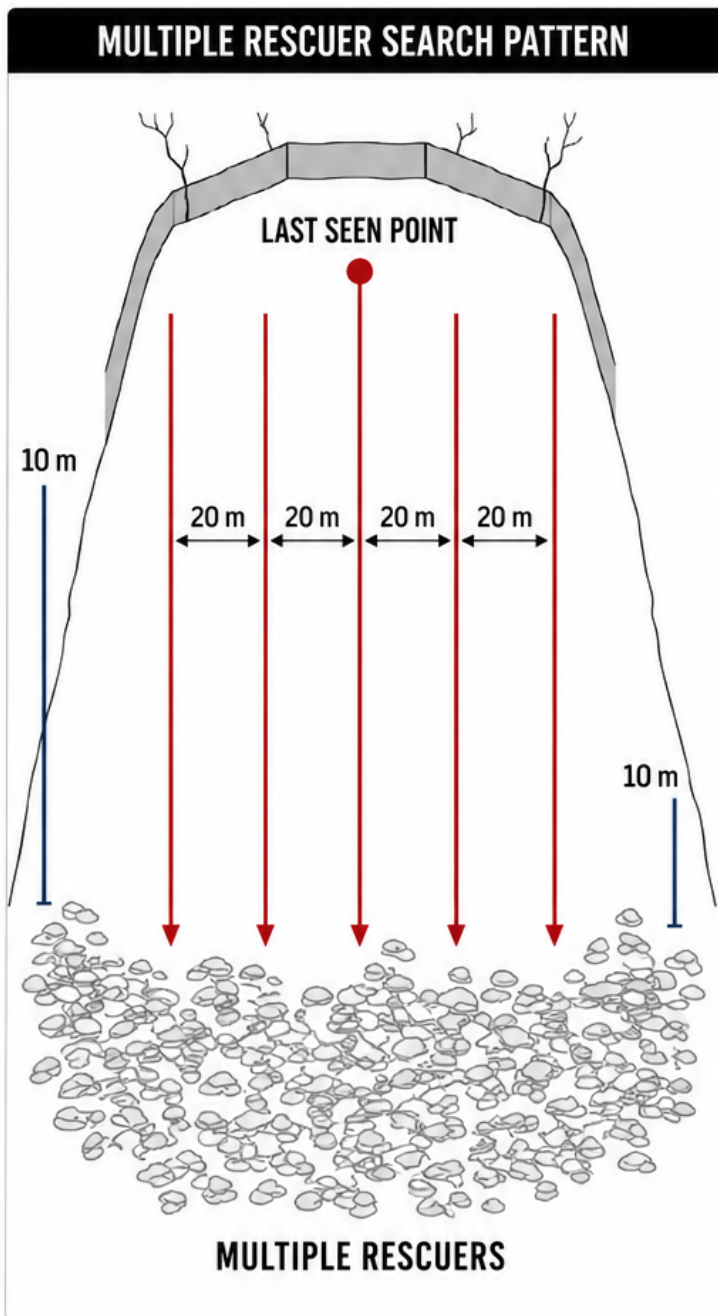
03  **SIGNAL SEARCH**
Spread out and search the avalanche for signals. Move efficiently.

04  **LOCALIZATION**
Move to strongest signal. Narrow the area. Mark the first victim. Continue search.





05  **PROBE**
Probe in a spiral pattern at 25 cm intervals. Confirm the hit. Mark the location.

06  **EXCAVATION**
Dig from below using strategic excavation. Work as a team. Extract the victim.

07  **FIRST AID**
Check airway and breathing. Treat life-threatening injuries. Prevent hypothermia. Prepare for evacuation.



KEY PRINCIPLES

-  One leader coordinates all actions.
-  One rescuer localizes while others continue searching.
-  Probe confirmation before excavation.
-  Rotating diggers improves efficiency and speed.

WHEN TO CALL FOR HELP



Communication decisions during avalanche rescue can directly affect search efficiency and survival outcomes.



1 SINGLE RESCUER

Call emergency services once the victim's airway is accessible.

- ✓ Continue rescue whenever possible.
- ✓ Prioritize airway management.
- ✓ Avoid delaying critical care.



2 RESCUE GROUP

Coordinate communications within the team.

- ✓ Assign one caller.
- ✓ Prevent duplicated calls.
- ✓ Keep rescuers focused on their tasks.



3 SIGNAL MANAGEMENT

Maintain separation from active beacon searches.

- ✓ Stay at least 25 m away.
- ✓ Reduce electronic interference.
- ✓ Avoid compromising search accuracy.



4 COMMUNICATION PRIORITIES

Rescue remains the primary objective.

- ✓ Communicate efficiently.
- ✓ Share essential information only.
- ✓ Balance communication and rescue efforts.



EMERGENCY CALL CHECKLIST



LOCATION

Where are you?



NUMBER OF VICTIMS

How many people?



BURIAL STATUS

Buried, partial, or not buried?



INJURIES

Known injuries or critical conditions?



AVALANCHE CONDITIONS

What was the avalanche situation?



CONTACT NUMBER






Provide your call back number.

FIRST AID PRIORITIES



Rapid assessment and correct actions improve survival chances.

PRIMARY MEDICAL PRIORITIES

01		<p>AIRWAY</p> <p>Ensure the airway is clear. Remove obstructions if needed and position the victim correctly.</p>	<ul style="list-style-type: none"> ▶ Check for obstructions ▶ Open airway ▶ Confirm breathing
02		<p>BREATHING</p> <p>Assess breathing and provide adequate ventilation. Support respirations if absent or inadequate.</p>	<ul style="list-style-type: none"> ▶ Check breathing ▶ Provide rescue breaths ▶ Use barrier device if available
03		<p>CIRCULATION</p> <p>Check for a pulse and signs of circulation. Control severe bleeding and support perfusion.</p>	<ul style="list-style-type: none"> ▶ Check pulse ▶ Control bleeding ▶ Keep warm and calm
04		<p>HYPOTHERMIA PREVENTION</p> <p>Prevent heat loss and insulate the victim from cold, snow and wind. Handle gently.</p>	<ul style="list-style-type: none"> ▶ Remove wet clothing ▶ Insulate and cover ▶ Protect from wind and cold
05		<p>EVACUATION</p> <p>Plan and prepare for safe and efficient evacuation as early as possible.</p>	<ul style="list-style-type: none"> ▶ Assess evacuation options ▶ Communicate clearly ▶ Monitor victim continuously

IMPORTANT RULES



CARRY A FIRST AID KIT



MOVE ONLY WHEN NECESSARY



NEVER INTERRUPT CPR



CONTROL BLEEDING IMMEDIATELY

IF YOU ARE CAUGHT IN AN AVALANCHE

Act fast. Your actions during an avalanche can greatly increase your chances of survival.



DURING MOVEMENT

- Shout
- Move sideways
- Release equipment
- Deploy airbag
- Swim



WHEN THE AVALANCHE SLOWS

- Protect airway
- Create air pocket
- Raise one arm



AFTER BURIAL

- Stay calm
- Conserve oxygen
- Wait for rescuers



REMEMBER:

Your goal is to stay on top, create an air pocket and survive the slide.

STAY SAFE IN THE MOUNTAINS

This handbook is intended as a quick-reference guide, not a substitute for avalanche education and practical training.



REMEMBER



Avalanche rescue is a time-critical skill.



Reading about rescue is not the same as practicing rescue.



Regular beacon, probe and shovel training is essential.



Good decision-making is always better than good rescue skills.



The best avalanche rescue is the one you never need to perform.



CONTINUE LEARNING

To travel safely in avalanche terrain, consider:



AVALANCHE AWARENESS COURSES

Build your foundation of knowledge.



COMPANION RESCUE TRAINING

Learn and practice rescue techniques.



BEACON PRACTICE SESSIONS

Practice often. Speed saves lives.



PROFESSIONAL EDUCATION

Take your skills to the next level.



GUIDED EXPERIENCES WITH QUALIFIED PROFESSIONALS

Learn from local experts.



Mountain conditions change constantly. No handbook can replace local knowledge, professional instruction, sound judgment and continuous training.

KNOWLEDGE REDUCES RISK. TRAINING SAVES LIVES.