

# AVALANCHE SAFETY

## Types of Avalanches:

- ❖ Wet
- ❖ Powder
- ❖ Slab



## Conditions that lead to Avalanche potential:

- ✦ Angle of the slope: Self triggered avalanches usually occur on slopes between 30°-45°
- ✦ Weak snow layers: Weak layers can be caused by several conditions such as – faceted snow, surface hoar, wind, sun, and rapid changes in temperature.
- ✦ No anchors: Trees and rocks will help anchor the snow and reduce the chances of an avalanche.
- ✦ Cornices: Wind will deposit deep drifts of snow called cornices on the leeward side of a ridge crest. Cornices can weigh thousands of pounds and can be very unstable.
- ✦ Heavy snowfall: Snow accumulation of 1" or more per hour increases the threat of an avalanche. Depending on wind and temperature, snow requires 2 or 3 days to "set up" after a storm.



### **Reducing the risk of being caught in an Avalanche:**

- Always check the local avalanche forecast before going into the backcountry. The Utah Avalanche center can be accessed at [utahavalanchecenter.org](http://utahavalanchecenter.org) or by calling 1-888-999-4019. Select option #1 for the Wasatch Mountains.
- Get a recent weather forecast and be willing to cancel a trip if the weather conditions pose a potential threat.
- Stay off slopes between 30°-45°.
- Choose a safe route of travel by staying on the valley floor or following ridgelines. Be aware of avalanche run-out zones and steer clear of them.
- Check the snow for weak layers by digging a snow pit.
- If you have to cross a potential avalanche slope take the following precautions:
  - Plan your route - a diagonal path is safer than a horizontal path.
  - Check that your avalanche beacon is turned on to transmit.
  - Loosen or undo straps on your pack, poles, etc.
  - Zip-up and adjust your shell layer, including the hood to keep snow out.
  - Cross the slope one person at a time.

### **What to do if caught in an Avalanche:**

- ❖ Try to get out of the path, locate a tree to hold onto, or locate an "island" of safety to escape to.
- ❖ Get rid of any equipment that you can - i.e. pack, skis, and poles.
- ❖ Position yourself on your back with your head up-hill and use a backstroke swimming motion.
- ❖ When the snow is about to stop moving, create an air pocket around your face with your hands and arms.
- ❖ Don't panic, you will only use more oxygen if you panic.
- ❖ Determine which way is up and try to dig out if you can.

### **Avalanche rescue:**

- ✚ Those not caught in the avalanche should begin searching immediately. Sending someone for help is not recommended because by the time they return the victim will most likely be dead. After 30 minutes, one half of all avalanche victims die.
- ✚ Identify the point where the victim was last seen. Check for any equipment or clothing articles that may have come off during the avalanche.
- ✚ Turn avalanche beacons to receive and quickly do a search of the area, across and down from point that the victim was last seen.
- ✚ If you don't have a beacon, use an avalanche probe (ski pole, ski, or other long object that can penetrate into the snow).