Interesting Fact:
According to NSAA, it is five times (5x) safer to ride a chairlift than to ride in an elevator, and eight times (8x) safer than riding in a car.

What is Lift Maintenance Safety?
Vail Resorts owns hundreds of chairlifts across our resorts and they are the main form of transportation for our skiing guests. These multi-million dollar mechanisms have numerous safety systems that are both mechanical and electrical, and it takes thousands of man hours to maintain them. Safety programs that apply to Lift Maintenance Technicians include Lockout Tagout (LOTO), UTV/ATV, Working at Heights, and more.

Key Takeaways:
Critical components of a ski lift include
- Braking Systems
- Drives (move the lift)
- Gearboxes
- Haul Rope
- Grips (hold the chair/gondola on the haul rope)
- Tension system (keeps the haul rope tight)
- Carriers
- Towers
- Assemblies
- Conveyance Systems

Non-destructive testing (NDT) - A way to test the integrity of lift components without causing damage. NDT is conducted at an interval specified by lift manufacturers and regulatory agencies.

Types of Aerial Ropeways / People Movers:
- Fixed-Grip - chairs do not detach from haul rope at the terminals
- Detachable Chairlifts - chairs do detach; lift utilizes a conveyance system to move the chairs through the terminal at a higher speed than fixed-grip
- Gondolas - can be fixed-grip or detachable; carrier is usually closed
- Trams - typically two cars; cars are pulled by the haul rope instead of being carried
- Conveyors - similar to a flat escalator; also known as a ‘carpet’
- Rope Tows - rope pulls individuals up the hill
- Platter Lifts / T-Bars - allows the skier/boarder to lean against with boards remaining on the snow while being pulled uphill

Items to Note:
All ski lifts are dynamically tested at a minimum of every seven years. In most cases, the lifts are loaded to 110% capacity via water-filled barrels to verify the performance of all critical components. Each ski lift also has a maintenance program that includes start-up, daily, weekly, and monthly checks, as well as annual maintenance.
LIFT MAINTENANCE SAFETY

Test your knowledge

1. Ski lifts are checked every other week.
   
   TRUE ☐   FALSE ☐

2. Cars are safer than ski lifts.
   
   TRUE ☐   FALSE ☐

3. The braking system is a critical component of a ski lift.
   
   TRUE ☐   FALSE ☐

4. Lift Maintenance Technicians only have to learn one safety program.
   
   TRUE ☐   FALSE ☐

5. YNDT stands for non-destructive testing.
   
   TRUE ☐   FALSE ☐