BUYER'S GUIDE TO
BETTER MOUNTAIN LIVING

An independent checklist for evaluating home oxygenation systems

ACT
ALTITUDE CONTROL TECHNOLOGY

You've made the right choice to research oxygenation systems for your mountain home. Altitude sickness and restless sleep affect both visitors and longtime residents at elevation. Use this checklist as your objective framework — regardless of which system you're evaluating.

Altitude Control Technology (ACT) invented the first oxygen-controlled altitude simulation system in 1995 and remains the leading provider of residential oxygenation systems. We share this guide freely because an informed buyer always makes the best decision.

WHAT TO LOOK FOR IN A HOME OXYGENATION SYSTEM

- [ ] **UL Listed Equipment** — NFPA and the National Electrical Code require all appliances to be UL Listed.
  - [ ] Non-listed equipment can void property insurance and cause claims to be denied.
  - [ ] Most inspectors will not issue a certificate of occupancy without UL listing. An NRTL field inspection can substitute, but insurance issues remain and future service will require flying in an inspector.
- [ ] **Manufactured in the USA** — Many inexpensive units sourced overseas do not adhere to U.S. safety standards or UL listing requirements.
- [ ] **Verified Efficacy** — The system must include calibrated sensors that accurately measure actual oxygen content, display that information to the occupant in real time, and deliver sufficient enrichment to produce a measurable wellness benefit at your altitude.
- [ ] **Barometric Pressure Compensation** — Pressure — not altitude — governs available oxygen. A system that ignores live barometric pressure cannot safely or consistently maintain target concentrations as weather changes.
- [ ] **Fire Safety by Design** — Enriched oxygen dramatically lowers the ignition point of common materials. The system must comply with NFPA 99 Category 3 standards and maintain a safety buffer at all times.
  - [ ] Discharge outlets must be fixed and precisely positioned — minimum 84" above finished floor and 96" from any fuel-fired or open-flame source.
  - [ ] The system must automatically shut down when a fire alarm is triggered.
- [ ] **NFPA 99 Category 3 Medical Gas Standards** — Medical-grade copper supply piping installed to healthcare-grade standards. Copper is resistant to puncture and corrosion, and has a significantly longer service lifespan than plastic alternatives. Very few systems meet this benchmark.
- [ ] **Redundant Sensor Technology** — Single-sensor systems have no failsafe. Dual or redundant sensors with real-time barometric adjustment are essential.
- [ ] **Independent Third-Party Validation** — Safety practices should be validated by credentialed risk consultants or engineers.
- [ ] **Mobile App Monitoring & Verified Performance** — Real-time data so you — and the company — can confirm the system delivers the altitude equivalent you paid for.
- [ ] **Dedicated In-House Service Team** — Factory installation by trained technicians required. Ongoing support from a staffed service team — not a third-party call center.
- [ ] **Fresh Outside Air Intake, ASHRAE Compliant** — Air must be drawn from outdoors, not a crawl space or mechanical room.
- [ ] **Nitrogen Exhaust to Exterior** — All concentrators separate oxygen from nitrogen. The nitrogen byproduct must exhaust outside to prevent hypoxic hazard in enclosed spaces.

⚠ WHY DISCHARGE OUTLET PLACEMENT MATTERS

Elevated oxygen dramatically lowers the ignition point of everyday materials — bedding, pillows, hairspray, charging phones, and night lamps. A phone charging in an oxygen-enriched room is a realistic ignition source. Proper outlet placement is a life-safety requirement, not a preference.

WHY CHOOSE ACT FOR OXYGEN ENRICHMENT?

Safety, compliance & 30 years of innovation — designed & made in the USA

ACT
ALTITUDE CONTROL TECHNOLOGY

✓ UL LISTED — MET LABS E114864 | ✓ NFPA 99 CATEGORY 3 COMPLIANT | ✓ IRC CHAPTER 13 COMPLIANT |
✓ 30 YEARS OF INNOVATION | ✓ DESIGNED & MADE IN THE USA | ✓ R.E.M. RISK CONSULTANTS VALIDATED

ACT's engineers invented the first oxygen-controlled altitude simulation system in 1995. The **Altiflo™ system is the only residential oxygen enrichment system engineered to healthcare-grade safety standards** — protecting your home, your family, and your investment.

HOW THE ALTIFLO™ SYSTEM DELIVERS

★ EFFICACY & PARTNERSHIP

- **Proven results** — the Altiflo® Control app provides real-time oxygen level data so you and ACT can both verify performance.
- **Sealing consultation** — ACT provides detailed room and duct sealing guidance to maximize effectiveness.
- **Long-term relationship** — fully staffed in-house service team supports you well beyond installation day.

▲ ENGINEERED FOR SAFETY

- **Redundant sensors** monitor and adjust oxygen in real time, including barometric changes simpler systems ignore.
- **10% safety buffer** maintained below NFPA 99's fire-risk threshold at all times.
- **Fire-alarm shutdown** automatically cuts the system when an alarm triggers — absent from competing systems.
- **Prevents over-oxygenation** — the Altistat® controller ensures oxygen never lowers flashpoints of common materials.

■ CODE & LISTING COMPLIANCE

- **UL Listed** (MET Labs E114864) — the only residential oxygen system meeting OSHA's NRTL requirement. Required by code for appliances over 50V.
- **IRC Chapter 13 compliant** (2018, 2021, 2024 editions).
- **Only system** compliant with NFPA 99 Category 3 Medical Gas standards — a healthcare benchmark no competitor meets.
- **Validated** by R.E.M. Risk Consultants, LLC and codified by Telluride, CO.

INSTALLATION STANDARDS

- ☐ **Medical-grade copper supply piping** per NFPA 99 Category 3 — puncture-resistant, corrosion-resistant, longer-lasting than plastic.
- ☐ **Outlets fixed and precisely positioned** — min 84" above finished floor, 96" from any fuel-fired or open-flame source.
- ☐ **Keeps oxygen away from ignition sources** — bedding, pillows, aerosols, charging phones, night lamps at all times.
- ☐ **Sensor required in every oxygen-supplied room** — each space with an oxygen supply must have a dedicated sensor within the same room.
- ☐ **Factory installation required** — every system commissioned by trained ACT technicians. No DIY shortcuts.

! WHAT CHEAPER SYSTEMS RISK

- ✗ No barometric compensation = unpredictable O_2 levels
- ✗ Non-UL-listed equipment fails permit inspections
- ✗ Non-medical-grade piping fails the emerging code standard
- ✗ Single-sensor systems — one failure = no protection
- ✗ Competitor units typically sourced from China, not UL Listed
- ✗ No automatic fire-alarm shutdown integration