What If Everything You Needed to Survive Had to Fit Through This Space?

In Chile, 33 miners are trapped 2,230 feet underground—and until a rescue tunnel reaches them months from now, the only connection they have to the surface will be three narrow boreholes. Everything the men need to survive must fit in canisters 3.19 inches wide—known as *palomas* ("doves")—that are winched up and down 24 hours a day. What they carry:

- A daily 2,000-calorie diet—half energy-packed nutrition shakes, half foods like bread, ham, and kiwis
- Five liters of bottled water per miner per day
- Aluminum poles and canvas to assemble cots
- Toothbrushes, toothpaste, razors, and other toiletries
- Special waterproof shoes and lightweight clothing with copper fibers to resist bacteria and fungi
- · Journals and reading material, including 33 mini-Bibles
- iPod (sent topside for recharging) with speakers—not headphones—to encourage communal listening
- · Head-lamp batteries and other lighting equipment
- Vitamin D supplements—250 times the usual daily dose, to combat the lack of sunlight
- Syringes for tetanus, diphtheria, influenza, and pneumonia vaccinations, administered by a trapped miner who happens to have medical training
- · Health questionnaires; blood and urine samples
- A camera and phone line to speak to family, rescue workers, and psychiatrists
- Football jerseys autographed by Chile's national team
- A mini-projector and fiber-optic line, to show sports and movies in a 50-inch picture on the cave wall
- Two things the miners won't get: cigarettes and booze, though they've asked for red wine to toast Chile's Independence Day on Sept. 18

SOURCES: CHILEAN MINISTRIES OF HEALTH AND MINING, NASA
BY RYAN TRACY AND MICHAEL PICÓN





