

Reports from "Humans 2 Mars Summit" suggest dust may prevent human settlement of Mars

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Mars surface.

(Phys.org) —Reports given by experts in the space-health field suggest it might take longer for humans to build a colony on Mars than has been expected. Such experts speaking to attendees at the recent "Humans 2 Mars Summit" in Washington D.C. expressed concern about the dangers of Martian dust. They believe the health hazards posed by the Martian regolith could prevent humans from colonizing the planet anytime soon.

The announcement comes on the heels of [news from Mars One](#)—the Netherlands based group selling tickets for a one way trip to the red planet—announcing that over 78,000 people have signed up so far. Some

of those people might change their mind however when they learn of recent discoveries about the content of [Martian dust](#).

NASA's chief health and medical officer, Richard Williams, told those at the summit that perchlorates appear to be widespread on the planet's surface. The fine dust material produced by perchloric acid has been known to cause thyroid problems in people here on Earth.

Just as problematic, Grant Anderson (co-founder of Paragon Space Development) told the audience, is gypsum. The Curiosity rover has found veins of it near the planet's surface. Though it's not toxic, it has been known to cause a condition similar to black lung in coal miners in people exposed to it for long periods of time.

Both types of [dust particles](#) are in addition to the known presence of silicates on the [Martian surface](#)—if breathed-in they can cause reactions with water in the lungs and result in the creation of [harmful chemicals](#).

Martian dust could pose health hazards because of the difficulty of removing it from [space suits](#) and boots. NASA learned during the Apollo space missions that [moon dust](#) was a much bigger problem than had been anticipated. They have reported in the past on the large amounts of dust that stuck to astronaut suits and boots. Fine grains stick to materials because of static electricity, and on Mars would likely be sucked into a controlled environment by an air-lock. Over time, health specialists fear the dust would build up in air filters and living quarters, adding yet another life threatening element to the list of other known hazards (traveling and landing safely, exposure to radiation and cosmic rays, etc.) for the people who seek to colonize the planet.

Space technologists have yet to figure out a way to remove the fine particulates from suits and boots and because of that, manned missions to Mars could be put on hold indefinitely.

More information: via [Newscientist](#)

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