



1

00:00:08,360 --> 00:00:10,700

Getting to Mars is no easy task.

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00:00:10,700 --> 00:00:13,760

The technical challenges and investment is great.

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00:00:13,760 --> 00:00:18,200

Most people don't know NASA's investment in the technologies needed to get to Mars

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00:00:18,200 --> 00:00:20,950

bring benefit to all our lives right here on Earth.

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00:00:20,950 --> 00:00:25,770

As NASA develops the space systems needed to get to Mars, many of those designs have

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00:00:25,770 --> 00:00:30,260

been used to benefit transportation and medical treatment on our home planet.

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00:00:30,260 --> 00:00:35,530

Curved surfaces found on most of the large trucks you see on America's highways are actually

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00:00:35,530 --> 00:00:41,570

spin off designs from aerodynamic tests conducted by NASA for our spaceships.

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00:00:41,570 --> 00:00:46,430

The curved surfaces and wind guides on the trucks reduce drag reducing the amount of

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00:00:46,430 --> 00:00:52,030

fuel needed for the long haul, saving truckers money while also reducing pollution.

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00:00:52,030 --> 00:00:56,740

The portable medical devices and exercise equipment needed for a trip to Mars is being

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00:00:56,740 --> 00:01:01,530

used on the space station today also provide Earthly benefits.

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00:01:01,530 --> 00:01:07,070

Medical rehabilitation centers use commercially available machines derived from exercise equipment

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00:01:07,070 --> 00:01:11,530

aboard the International Space Station to help people on Earth to regain strength in

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00:01:11,530 --> 00:01:16,460

walking thanks to simulated reduced gravity environments.

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00:01:16,460 --> 00:01:20,960

Remote telemedicine techniques and lightweight portable medical devices used by NASA during

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00:01:20,960 --> 00:01:26,710

space missions are also being used by doctors on Earth to diagnose medical emergencies in

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00:01:26,710 --> 00:01:29,560

some of the most remote locations on earth.

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00:01:29,560 --> 00:01:33,880

From researchers in Antarctica to our service men and women in areas of conflict around