Gravity on Mars



Gravity is the force in the universe that pulls objects together. Any object that has mass has a gravitational pull. The larger the mass of an object, the greater the pull of gravity.

Mars has less mass than Earth. Its gravitational pull is only about 38% of Earth's. This means that if you weigh 100 lbs. on Earth, you would only weigh 38 pounds on Mars.

Scientists have discovered that humans can experience health problems such as weak joints and slower heart rates when they live where the force of gravity is less than Earth's. Researchers at MIT planned to test the effect of low gravity on mice. They designed a mini-spacecraft that would imitate the gravity of Mars. After 5 weeks in orbit they would examine the mice to see if the low gravity had affected their health. This would have cost \$21,000,000. Unfortunately, they did not get the funding for this so the project was cancelled. As a result we do not have any data to determine how human health will be affected by living for a long time in the low gravity of Mars.

<u>Questions</u>

- 1. How does gravity affect weight?
- 2. Are there health problems if you live in a low gravity environment?
- 3. How could scientists find out if there are health problems from living in low gravity?