



Health in Space

Brief Discussion Guide

Draw participants into the activity and frame the activity with the main message:

Astronauts — and kids! — need to exercise to stay healthy. Use discussion to help them start to think about prior experiences and build new understandings about health and the importance of exercise —both on Earth and in space. Some conversation-starters are:

- Invite the children to tell another child or family member one thing that they do to stay healthy and one thing that an astronaut would do to stay healthy.
- Suggest that they think of the things they do every single day, starting with the minute they wake up to the very last thing they do at night. Ask which of those things, if they didn't *do* or *have* them on a regular basis, would *sooner* or *later* make them either physically sick — or just plain miserable. Answers will vary, but probably will include things like breathing, eating, sleeping, bathing, brushing your teeth, exercising and playing.
- Both kids and astronauts have to...
 - *Keep clean.* Cleanliness is an important factor for maintaining a healthy life! Bacteria can thrive in space as well as on Earth, particularly on unclean surfaces, and that includes your body! Colds can spread in space, just like they can on Earth; it is necessary for astronauts to stay clean to stay healthy. Being clean also makes you feel good! There are no showers or baths in space, so astronauts use wipes to keep their bodies clean.
 - *Sleep.* Children, particularly teenagers, need at least 8 hours of sleep each night. Astronauts also need to get enough sleep because, without sleep, it is difficult to think clearly.
 - *Have fun.* No matter what your age or location, fun — and relaxation — is important for good mental health. All people need time out — to rest, relax, and have fun. Astronauts and kids share a lot of fun things in common, like playing Frisbee, cards, guitar, juggling, tossing food and catching it in their mouths (or trying!), watching movies, listening to music, reading books, and sending e-mails to family and friends!
 - *Eat a well-balanced diet.* Meals should follow a schedule and be nutritious and well balanced. They should be rich in vitamins, minerals, and other nutrients, and should be balanced for calories/energy. Calcium, in particular, is an important mineral for both kids and astronauts to build and maintain bone mass. Another vital ingredient for health is drinking plenty of water. Without a healthy diet, we would not have the energy to work and play and we would be more susceptible to diseases.
 - *Eat foods that are rich in calcium and help healthy bones to grow and stay healthy.* Dairy foods, like cheese and yogurt, as well as broccoli and brussel sprouts have lots of calcium.
 - *Exercise.* Exercise keeps bones and muscles strong and keeps our heart — and brain! — healthy. Exercise helps keep astronauts' bones and muscles from weakening while they are in the reduced gravity conditions of space. You may want to mention to the children that "exercise" and "play" are not necessarily the same

things. There can be overlap, but activities like video games could be considered play; doing jumping jacks for 30 minutes would be exercise.

- Protect ourselves from ultraviolet radiation. Too much exposure to UV radiation results in sunburn and skin diseases. A little UV radiation is needed by all humans, but we need to limit our exposure by using sun block, covering up with clothing and space suits, and wearing protective sunglasses and visors on our space helmets.