

Chapter 1 : They Came from Beyond Space () - IMDb

*When They Come From Space - Kindle edition by Mark Clifton. Download it once and read it on your Kindle device, PC, phones or tablets. Use features like bookmarks, note taking and highlighting while reading When They Come From Space.*

Chris Hadfield has returned from space since weeks. If you have seen a guy posting beautiful pictures from the International Space Station, then that guy is none other than Chris. They probably need to let go of the zero-gravity sensation, get used to the idea of things falling down and learning how to walk properly. There have been astronauts who spent days in space and had problems getting out of the chair when back on earth. In space, astronauts experience constant weightlessness. Their bones and muscles begin to slowly waste away as time goes on. The longer the time spent in weightlessness, the more profound the loss. There have been cases of astronauts spending few weeks in a wheelchair because they lost a considerable amount of muscle and bone mass while in space. In addition to physical issues, there are psychological elements as well. This phenomenon is known as space-motion sickness. So what did Col. Chris Hadfield have to go through when he came back on earth after spending 6 months in the International Space Station? The smell is like an old friend. How does the body control blood pressure? Scarecrow on a tilt table to measure how. Wired head, chest, arms and feet, learning how the body works when it has been weightless for half a year. My left hand, all wired-up to measure how my body is readapting to gravity. Part of a Japanese university study. How I earned my breakfast this morning. Welcome back to Earth. This is your brain, on Earth. ESA neurological experiment measuring brainwave changes as I adapted to and from 0G. Spent 75 minutes imaging my innards in this MRI. Pegboard task " testing hand-eye coordination as it changes back. Just like a test we did during astronaut selection. Time in weightlessness affects basic 3D perception. Studying how we interpret things using an ESA experiment. Look deep into my eyes. Gibson uses all the tools to see how I see. It appears my eyes were unchanged. Heart and lungs, on the cardio machine to see exactly how bodies readapt. I have empathy for the cries of newborns. Vital science, imaging my eroded spine, learning about the body, all with a few bonus minutes to nap. An hour of Neurospat and my brain is fried like an egg. Doing my best for ESA science. Quantitative Computed Tomography, taking 3D images of my new hipbone internal structure. This German machine uses X-rays to create a detailed image of the old and new bone structure in my leg. Looking at my spine " Kat is a world-class ultrasound specialist, learning about osteoporosis through her hands. Inside this tilting, turning simulator is an astronaut trying to remember which way is up. I am Ali Gajani. Geek in early as a result of my growing enthusiasm and passion for technology. I love sharing my knowledge and helping out the community by creating useful, engaging and compelling content. If you want to write for Mr. Geek, just PM me on my Facebook profile.

## Chapter 2 : They Came from Outer Space - Wikipedia

*When they come from space Hardcover - by Mark Clifton Author) out of 5 stars 4 customer reviews. See all 14 formats and editions Hide other formats and.*

As soon as they come back to Earth, though, they return to their normal height. What happens in space is not an optical illusion, but one more example of how microgravity affects our bodies. Imagine that the vertebrae in your back form a giant spring. Pushing down on the spring keeps it coiled tightly. When the force is released, the spring stretches out. In the same way, the spine elongates by up to three percent while humans travel in space. There is less gravity pushing down on the vertebrae, so they can stretch out - up to 7. To some degree, a similar stretching of the spine happens to you every night. You can do your own experiments with a meterstick. Measure your height carefully as soon as you get up or while you are still lying down. The idea, however, is the same. A spring is similar to your backbone. There are two theories to explain why the spine gets longer, says Dr. The first theory is that elongation only happens to the spine. It does not have a major effect on other areas of the body, such as the legs or arms. The reason is because those bones are not compressible like the discs in the spine. The natural curve of the spine is straightened somewhat in space. Without the usual force of gravity pushing down on it, the spine is freer to relax. The second theory about spinal elongation says that the discs between each vertebra are pressed together in regular gravity. This compression is due to the pressure pulling the spine downward. When gravity is lowered in space, the discs are able to hold more spinal fluid. This makes them larger. It also puts more space between each vertebra. The first change is seen as soon as the space vehicle goes into the orbit. That is when most of the elongation takes place. The second is a smaller, more gradual change over time. This gradual relaxation of the spine eventually stops. If astronauts stayed in space forever, they would not continue to grow and grow. But, since crew members wear custom-fitted pressurized suits when launching and landing, the suits need to be made large enough to have room for this change in height. Also, the Russian Soyuz vehicle has size limits in seating height. Astronauts sometimes ride the Soyuz to launch from and return to Earth. If crew members were too tall, it could pose a problem. So far, this has not been a problem. The Soyuz was designed to carry Russian cosmonauts. It was first used by American astronauts during the U. The Russians had height limits smaller than those of American astronauts. Some Americans were too tall to fit in the seating areas. The Soyuz was chosen to be the emergency crew return vehicle for the International Space Station. So, the United States asked Russia to adjust the seats for taller American crew members. The data about human spines in space was first gathered from the Skylab missions. This was more than 20 years ago. Six astronauts were studied. All six showed almost three percent growth. The spines returned to normal curvature as soon as the astronauts hit regular gravity. Then, they were back to normal within 10 days.

**GLOSSARY**  
Compress - to make smaller by pressing  
Elongation - the act of lengthening an object  
Habitability and Environmental Factors Office - the office of NASA that is responsible for providing a safe and productive environment for any human spacecraft or habitat  
Vertebra - one of the bony sections of the spinal column.

**Chapter 3 : 17 Things Astronauts Do After Coming Back To Earth - Mr. Geek**

*Scientists investigating an unusual meteor shower in a rural field are possessed by an alien force bent on an ulterior purpose.*

July 24, Customs and Border Patrol. Before the ticker tape parades and the inevitable world tour, the triumphant Apollo 11 astronauts were greeted with a more mundane aspect of life on Earth when they splashed down 40 years ago today - going through customs. Moon rocks, moon dust and other lunar samples, according to the customs form filed at the Honolulu Airport in Hawaii on July 24, - the day the Apollo 11 crew splashed down in the Pacific Ocean to end their historic moon landing mission. The customs form is signed by all three Apollo 11 astronauts. They declared their cargo and listed their flight route as starting Cape Kennedy now Cape Canaveral in Florida with a stopover on the moon. The form was posted to the U. Customs and Border Protection Web site this week to mark the Apollo 11 mission? It was a little joke at the time.? It took a two more days for the astronauts to actually return to Hawaii on July 26, where they were welcomed with a July 27 ceremony at Pearl Harbor. The astronauts were trapped inside a NASA trailer as part of a quarantine effort just in case they brought back any germs or disease from the moon. They even wore special biological containment suits when they walked out on the deck of the USS Hornet after being retrieved. NASA transported them to Houston, quarantine trailer and all, and they emerged from isolation three weeks later. Nowadays, astronauts returning from space exit their spacecraft almost immediately, though some long-duration astronauts receive medical checks after spending months in weightlessness. Today, NASA astronauts still have to go through customs, but for more conventional reasons. Astronauts on missions headed for the International Space Station must train in Japan, Canada, Europe and Russia in order practice with the different systems, modules and tools they? Space station crews launching on Russian Soyuz spacecraft have to make their way to the Central Asian spaceport of Baikonur? Cosmodrome, which is in Kazakhstan. No matter what the mission, even astronauts have to go through customs, NASA officials said. As part of their routine airline flights to other countries and back, they of course encounter airport customs. The do have a government passport, but they do have to go through customs,? Just like the rest of us.? New Video Show - Moon Shots: The Historic Flight in Pictures.

## Chapter 4 : They Came from Beyond Space - Wikipedia

*They Came from Outer Space* is an American science fiction comedy series that aired in syndication from October to March. The series was created by Tom.

**Bones in Space** The loss of bone and muscle mass, change in cardiac performance, variation in behavior, and body-wide alterations initiated by a changing nervous system are some of the most apparent and potentially detrimental effects of microgravity.

**Structure and Function of Bone** Bone is a living tissue. It is dynamic, responsive to disease and injury, and self-repairing. Bone has both an organic component and an inorganic component. The organic component is composed mainly of collagen, long chains of protein that intertwine in flexible, elastic fibers. Hydroxyapatite, the inorganic component, is a calcium-rich mineral that stiffens and strengthens the collagen. Together, the interwoven organic and inorganic components of bone create a sturdy yet flexible skeletal structure.

**Bone loss** is one example of how the body changes in microgravity. NASA The body is constantly breaking down old bone, and replacing it with new bone. Bone is formed by cells called osteoblasts. These cells lay down new mineral along the surface of bone. Osteoclasts, large multinucleate cells, breaks down old bone, and are in part responsible for releasing calcium into the bloodstream. In a healthy individual on Earth, bone is formed at the same rate at which it is broken down, so there is never an overall loss of bone mass. This process changes as a person grows older, or enters microgravity for an extended period of time. On Earth, bones perform four basic functions: Many bones also act as levers for muscles, enabling movement. Storage of essential nutrients: Bone stores much of the calcium received from the diet. The calcium is stored in hydroxapatite the principal bone salt which provides the compressional strength of vertebrate bone. Between meals, the body maintains a constant concentration of calcium by absorbing it from bone and releasing it into the bloodstream. This constant calcium level in the bloodstream allows proper neural, muscular, and endocrine hormone functioning, as well as other cellular activities e. From the bloodstream, the calcium is taken up by different organs and systems of the body. When the body absorbs too much calcium from bones the skeleton can become thin and weak. Bone is also a good source of phosphate, hydrogen, potassium, and magnesium. Like calcium, these minerals are used by many systems of the body for a wide range of purposes. In addition to essential minerals, bone is also the storage site of marrow. Marrow is important for the formation and development of red and white blood cells and platelets. The skeleton houses and protects the brain, spinal column, and nerves. Many bones, especially the ribs, also protect the internal organs.

**Bone and Microgravity** Some of the processes and functions of bones change after the astronaut has lived in microgravity for several days. In space, the amount of weight that bones must support is reduced to almost zero. At the same time, many bones that aid in movement are no longer subjected to the same stresses that they are subjected to on Earth. Over time, calcium normally stored in the bones is broken down and released into the bloodstream. This bone loss begins within the first few days in space. The most severe loss occurs between the second and fifth months in space, although the process continues throughout the entire time spent in microgravity. Astronauts regain most of their bone mass in the months following their return from space, but not all of it. The exact mechanism that causes the loss of calcium in microgravity is unknown. Many scientists believe that microgravity somehow causes bone to break down at a much faster rate than it is built up. However, the exact trigger for this rate change has not been found. Researchers are currently pursuing multiple lines of research, including hormone level, diet, and exercise, in order to determine exactly what causes -- and may control or prevent -- osteoporosis during space flight. Another type of osteoporosis is a problem on Earth. As we grow older, the body begins to absorb bone much faster than it produces new bone. This leads to a lowered bone density, the same effect that microgravity has on astronauts. As a result, bones become more fragile and are more susceptible to fractures, especially in the hip, spine, and wrist. In many cases, people do not know that they have osteoporosis until their bones become so weak that an accidental bump or fall causes a fracture. Just as astronauts eat a careful diet and get plenty of special exercise in space to prevent disuse osteoporosis, steps can be taken to prevent osteoporosis on Earth. A balanced diet rich in calcium and vitamin D, exercise, a lifestyle free of smoking and alcohol, bone density

testing, and medication all prevent or alleviate osteoporosis.

## Chapter 5 : NASA - Bones in Space

*They looked like men--young & handsome, brave but modest. They acted as if they wanted the whole world to like them. Two men k The spacemen attacked with Earth's own weapons: big bombs, brass hats & Hollywood press agents.*

They are pursued by a pair of bumbling U. Air Force officers , Lt Col. Tom Barker, and Lt. Pat "Monkey" Wilson, who would like to capture the two for scientific study. Abe and Bo were constantly taking odd jobs to support themselves on their American road trip. Characters[ edit ] Abewosiak "Abe" Stuart Fratkin was the more responsible, and serious, of the two brothers. Much is made about the fact that Abe is still a virgin , and wishes to remain so until he is married. His primary concern throughout the series seems to be where their next meal will come from. He frequently complains that he is hungry. However, due to his high Croutonian metabolism he can eat large quantities of food and never gain weight. Boximaxio "Bo" Dean Cameron was the more fun loving of the brothers. His primary interest seemed to be how many women he could get to have sex with him. He seldom thinks about the consequences of his actions and usually gets Abe and himself into trouble. It was his idea to go to California instead of Britain when he read that his favorite centerfold lived in Malibu. He would wrestle control of the space ship from Abe and crash inside a California junk yard. Tom Barker Alan Royal was an Air Force officer charged with tracking down any extraterrestrial on Earth and turning them over to be dissected. He was resentful of the fact that he was working in the UFO hunter unit, because he believed that it was beneath some one of his rank to be doing the job. It is implied that he was put in the unit as punishment for embarrassing a senior officer. Barker believes that if he catches the brothers he will be transferred out of the unit and possibly made a general. Before the start of the series, he caught a pair of Croutonian sisters, the Patoolas, on which the government experimented. This is presumably how he knew about Crouton physiology and abilities. Abe and Bo knew about the capture of the sisters and it was one of the reasons Abe did not want to come to the United States. Wilson most likely was demoted from a higher rank down to lieutenant, when he was put into the unit. He got the nickname "Monkey", due to an embarrassing story that he was reluctant to share. The Colonel generally referred to him only as Wilson, but would call him Monkey when he wanted to put him down. Throughout the series neither officer managed to capture the Crouton brothers. This was due to their own incompetence, and the brothers using their various abilities to outwit them. When they crash landed on Earth, the twins saved their galactic communication device. This enabled them to communicate, in real time, with audio and video with their parents back on the planet Crouton. A couple of episodes ended with the brothers telling their parents how things were going in "England". To complete the illusion, they would often place a poster in back of them showing familiar British landmarks, such as Big Ben , Oxford University , or Tower Bridge , while playing " Rule Britannia " in the background. However, they were once almost found out when their father noticed that the Hands of Big Ben had not moved in the several minutes that they were talking. Crouton physiology[ edit ] The only Croutonians shown during the season were the two brothers and video conferences they had with their parents. Most of what is known about them comes from what they have said. Basic physiology[ edit ] Croutonians outwardly look like normal humans. Of the four seen in the series, they all appeared to be Caucasian. It is not known if they have other racial types on their home planet. Despite their outward appearances they have several unique powers and abilities that distinguish them from humans. These special powers use a lot of energy, which gives them an extraordinarily high metabolism. A running gag in the series, was how the two of them would eat an extremely large quantity of food often surprising or disgusting the humans around them. It was not uncommon for them to literally eat an all-you-can-eat buffet out of all their food. Each one of them could easily eat a whole large pizza pie, and still be hungry afterwards. Croutonians also appear to be able to eat as foods thing that are toxic to humans. On one incident they made a type of "Crouton cocktail". The ingredients included mouth wash, liquid shoe polish and window cleaner fluid. Another unique thing about all Croutonians, is that they all are apparently born fraternal twins. Throughout their lives the twins share an empathic bond, that enables them to each feel what is happening to the other, but not themselves. For example, if you were to slap Bo, he would feel nothing, but Abe would feel pain and vice versa. If you were to tickle Abe he would not

react, but Bo would laugh. This often lead to some farcical elements involving the brothers. Their bodies would make a sound like boiling water while giving off a thick white steam-like substance. This would often lead people to falsely assume that the Croutonians were in fact on fire, and splash cold water on the "smoking" brother. Due to their empathic link, it would cool off the other brother. Bo preferred to explain it as there was low rolling fog coming in. It is never explained if this is common in both genders or only male Croutonians.

**Crouton powers[ edit ]** The Croutonians have several unique powers that are seen throughout the series. The following is a list of powers that Bo and Abe exhibited. Apparently, these powers are shared by all Croutonians.

**Object Transference** Object transference was the most frequently used of their special powers. This ability enabled the brothers to instantaneously teleport any inanimate object across the room. This was done by the brothers linking each of their arms at the elbow, then with their free hand pointing at the object they would want to move. For example, Bo would point at the object and Abe would point where they would want the object to transfer to or vice versa. Then they would say the phrase "Boing" and the object would disappear from where Bo was pointing and appear where Abe was pointing. The brothers had to agree which object was going to be transferred and which brother was going to point. They could not use this power without their brother. In the course of the series they would transfer objects like food and bottles across the room. On one occasion they were able to transfer electricity from an electrical outlet to a light bulb just by using object transference.

**Inanimate Projection** This ability enables a Croutonian to temporarily place their consciousness into an inanimate object for a short period of time. All they had to do was will it and their body would disappear as they would now be inside the object that they wanted. Mobile objects such as vehicles or electronic objects such as televisions could be controlled by Croutons projected into them. A Croutonian can only stay inside an object for approximately one minute or else they might get stuck in the object for several hours. Bo once got stuck inside a massage table, an experience he quite enjoyed, but it left Abe feeling stiff.

**Animal communication** This power gave them the ability to tune into another species "frequency" in order to communicate with them using some form of telepathy. What they would do is hold one hand up to or above the animal, with their palm facing the animal. Occasionally, with their free hand they would use their fingers to tune into the animals thought, by moving their hand as if there was a knob near their ear. Once they found the correct frequency they could understand and communicate with that particular animal. Some of the animals they communicated with include:

**Energy transference** This ability allows one Croutonian to transfer some of his energy into another Croutonian. To do this they first must clasp both of their hands while facing each other. Then one can have his energy into the other. The effect on the one receiving the energy is that he is able to move almost at twice his normal speed, and have extremely quick reflexes. The other one will move in an exaggerated slowness and with extremely slow reflexes. It is not explained if the Croutonians must be related to use this ability or if they can transfer energy to anyone from Crouton.

## Chapter 6 : Title: When They Come from Space

*Read "When They Come From Space The Hilarious Misadventures Of Ralph Kennedy, Alien Psychologist" by Mark Clifton with Rakuten Kobo. CLASSIC HUMOROUS SF FROM A HUGO WINNING AUTHOR! Ralph Kennedy, unassuming personnel psychologist, thought he had headac.*

## Chapter 7 : It Came from Outer Space () - IMDb

*Beware the starmen bearing gifts. When they came from space they were not at all what some people expected them to be. No little green men, bug-eyed monsters, eight-tentacled slugs.*

## Chapter 8 : When They Come from Space by Mark Clifton

*Title: It Came from Outer Space () / Want to share IMDb's rating on your own site? No one in the small town believes him until they start disappearing.*

Chapter 9 : Buy They Came From Space - Microsoft Store

*They Came from Beyond Space* is a British Eastman Color science fiction film directed by Freddie Francis, written by Milton Subotsky and based on the book *The Gods Hate Kansas* by Joseph Millard.