

Jaipur Foot

Sound Effect	Sounds of heavy machinery in a factory. Against the backdrop of this sound...a sudden loud cry of immense pain. OOOOOOOOOOOh..Aaaaaaah
Other voices	Broken words such as What happened? What's wrong? We have to take him to the hospital...sounds of the machine...Ambulance...Call the manager...Of God, save Raju.
Male Narrator	In factories; in coal mines; on battlefields or on the roads... accidents such as this one are common. Some may lose a leg; others an arm.
Female Narrator	The injury heals in time but the sorrow at having become handicapped is a life-long feeling.
Male Narrator	Now, the handicapped can lead a normal life thanks to artificial limbs.
Female Narrator	Mood music. The rapid advance of research in the nation has given a new lease of life to many. (Sound effect). A large crowd...many patients have gathered to meet the doctor.
Male Narrator	It was in 1968 that an Orthopedic doctor in Jaipur designed an artificial leg...that is the part below the knee. The user could carry out a large range of natural movements while wearing this artificial limb.
Female Narrator	This doctor was Dr. P.K. Sethi and because this work was carried out in Jaipur the artificial limb came to be known as Jaipur foot.
Male Narrator	This artificial limb enables the user to not only to move around normally but to even run. The Jaipur foot can carry out all the movements that a natural leg can.
Female Narrator	Because he was an Orthopedic doctor, Dr. P.K. Sethi had excellent knowledge about bones and the associated muscles. He knew about all the interactions between bones and muscles. This is the reason why the limb that he designed was such a revolutionary advance over the previously used Socket-leg .
Male Narrator	Dr. P.K. Sethi's gift to the handicapped restored their self-confidence and dignity by allowing them to lead normal lives. He sold 50 such limbs between 1968 and 1975 to those who needed such limbs. He was given the Ramon Magsaysay Award for his transformational research.
Female Narrator	However, Dr. P.K. Sethi was a doctor. His task was to treat patients. It was not possible for him to ensure that each and every person in need got a Jaipur foot.
Male Narrator	In 1975, the members of <i>Bhagwan Mahavir Viklang Sahayata Samity</i> met Dr. P.K. Sethi and took his permission to expand the scope of his work.
Female Narrator	They followed this up by distributing the Jaipur foot free to the handicapped. They began to use newer materials to make the

	artificial limb and also utilized the expertise of local craftsmen.
Male Narrator	This is how, between 1975 to 2009...that is in 34 years... more than 3 lakh people benefited from the Jaipur foot. The members of the <i>Bhagwan Mahavir Viklang Sahayata Samity</i> do not discriminate between recipients. It is their policy, however, to use locally available materials to make calipers or crutches etc., so that the prices can be kept low.
Female Narrator	Apart from the artificial limb or Jaipur Foot which was distributed, they also distributed calipers to 6 lakh polio-afflicted and also distributed crutches and three-wheelers to the handicapped.
Male Narrator	It is no mean feat to have enabled 9 lakh handicapped individuals to stand on their own feet.
Female Narrator	This is how our doctors and researchers untiringly carried our research and implemented the findings to make the Jaipur foot evolve. They experimented with different kinds of rubber. Initially they used aluminum to make certain parts. Then they shifted to using polymers.
Male Narrator	(Mood music.) The massive advances in S&T research ahs been instrumental in saving the lives of many people. Sounds such as those outside OPD. (Lots of patients are waiting for the doctor to come.)
One male voice	Please...please...have some patience. One person has gone into the doctor's chamber. The doctor has to be satisfied that his leg can carry out the entire range of movements...that will take a little time, won't it? It is not as simple as treating you for mild cough and cold.
Second male voice	You are so right. My daughter received her artificial leg at the village. It is so heavy that she cannot wear it for very long. Begins to cry
Voice of a child	Daddy, Daddy...Oh!...you are crying AGAIN. See, I can do everything I want thanks to these legs. I can run. I can climb a tree. I can do everything...even squat on the ground...what more do you want?
Male Narrator	The Scientists have really made the Jaipur foot extremely light in weight
Female Narrator	The Scientists had no inkling that the results of defence-related research would impact medical science. Isn't it interesting that the Jaipur foot finally came to be made up of the same material that is used to protect missiles from tremendous heat.
Male Narrator	And that is why the Jaipur foot is so light in weight! <i>(Sounds from inside an OT...the surgeon can be heard asking first for a scalpel and then again, scissors.)</i>
Male voice – 1	(Conversation outside the OT.) What is your patient being operated on for?
Male voice – 2	(A long sigh. Insertion of stent). The blood vessels have become narrow...some are blocked...so the stents are being inserted to

	widen them up again.
Male voice – 2	And the patient is your....(the sentence hangs in the air ..and is spoke in arising tone of voice indicating that this is a question)
Male voice - 1	He is my uncle. He has two small children. (Pray) God is kind. (The voice reflects worry.)
Male voice - 2	Don't worry...all will be well. This hospital has many good doctors.
Female Narrator	Indian Scientists have begun research work to develop coronary stents that keep the blood flowing in our blood vessels.
Male Narrator	Yes, these stents are made by layering plastic over filaments of an especial metal. The most interesting part is that it was defense-research that gave the clue to the development of these stents. And the defense Scientists were not even working in the field of medicine...they were working on issues related to missiles!
Female Narrator	Mood music. The enormous strides taken by S&T in the country has been instrumental in saving numerous lives. DRDO or the Defence Research & Development Organisation has created a laser-instrument for eye-care.
Male Narrator	DRDO has established a society named Society for Biomedical Technology. This Society is devoted to exploring the possibilities of using the results derived from defense-research for the treatment of mankind.
Female Narrator	Not only that...it also works to find out how such technologies may be exploited in an inexpensive manner to benefit more and more people.
Male Narrator	This is why Scientists from different disciplines work together. Engineers and Doctors join hands with Social workers, Administrators and many, many others from different professions.
Female Narrator	Within just three short years of its inception this Society succeeded in making a Pacemaker that is suitable for use in cardiac treatments.
Male Narrator	This indigenous pacemaker costs just one-third that of imported ones.
Female Narrator	Not only this, but the Society has developed an automatic device that can be used to check if a person has cancer, or not.
Male Narrator	The society has even developed an inexpensive procedure to determine if a person's heart is healthy or if he is at risk of developing cardiac problems.
Female Narrator	This is how we can easily determine if a person is at risk from cancer or heart problems. Deployed at the Primary Health Centres, these procedures are ideally suited for dissemination even in the most remote of villages.
Male Narrator	Mood music. The enormous advances in S&T in the country has been instrumental in saving numerous lives. Let us now go over to The Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram.
Voice of a lady	Come this way, dear. The Research laboratory is that way.

Voice of a small girl	Ok (girl's voice)
	Silence. Soft voices
Male voice – 1	Dr. Koshy was quite excited when he saw our sample.
Male voice – 2	We will know soon enough.
Dr. Koshy	Good Morning, gentlemen
Both Male	Good Morning, Dr. Koshy...so you recognized us!
Dr. Koshy	You are making such wonderful Biomaterials—perhaps you are the country's foremost Company in this field. There is no one else I would rather recognize! You are the ones who deliver the fruits of our research to the common man. Come, the way to the laboratory is this way.
Male Narrator	The Sree Chitra Tirunal Institute for Medical Sciences & Technology is not just another routine healthcare institute. It is a hardcore Research Institute carrying out sophisticated research.
Female Narrator	Doctors, engineers, Physiologists who are experts on the way the different parts of the human body functions; work here.
Male Narrator	The researchers here have created many materials that have been used by doctors to treat patients; such materials are called Bio-materials.
Female Narrator	They developed blood bags or the pouches in which blood can be stored safely. They also developed artificial heart valves which are available at a fraction of the cost of the previously used, imported heart valves.
Male Narrator	These are now been produced in the country. India is one of the few countries that make blood bags.
Female Narrator	Sometimes human organs fail for a variety of reasons. The experts at The Sree Chitra Tirunal Institute for Medical Sciences & Technology are devoted to trying to find out just what material will be a perfect substitute.
Male Narrator	Some of the products that are a result of the R&D carried out here are: blood bag, blood oxygenator, Hydrocephalus shunt, artificial heart valve, concentric needle electrode.
Female Narrator	The Biomedical Technology division even has testing facilities. Companies that deal in production as also, research companies can have their materials or products tested here. The testing facilities available here are at par with international standards.
Male Narrator	There is a small hospital attached to the institute where treatment can be carried out. Shri Chitra Tirunel Institute for Medical Sciences and Technology...this is where research is carried out on how to replace the lost or failing organs of the human body. Not only that, but efforts are also made by this Institute to establish connections with companies that will manufacture the artificial replacement body parts. Those in need are treated at the hospital here as in-patients