## SUSHRUTA

## Sushrut (Father of Cosmetic Surgery)

[**Sushruta**](https://www.worldhistory.org/sushruta/) (c. 7th or 6th century BCE) was a physician in ancient [**India**](https://www.worldhistory.org/india/) known today as the “Father of Indian [**Medicine**](https://www.worldhistory.org/medicine/)” and “Father of Plastic Surgery” for inventing and developing surgical procedures. His work on the subject, the Sushruta Samhita (Sushruta's Compendium) is considered the oldest text in the world on plastic surgery and is highly regarded as one of the Great Trilogy of Ayurvedic Medicine; the other two being the Charaka Samhita, which preceded it, and the Astanga Hridaya, which followed it.

Ayurvedic Medicine is among the oldest medical systems in the world, dating back to the Vedic Period of India (c. 5000 BCE). The term Ayurveda translates as “life knowledge” or “life [**science**](https://www.worldhistory.org/science/)” and is the practice of holistic healing which incorporates “standard” medical knowledge with spiritual concepts and herbal remedies in treatment as well as prevention of diseases. It was practiced in India for centuries before the [**Greek**](https://www.worldhistory.org/greek/) physician [**Hippocrates**](https://www.worldhistory.org/Hippocrates/) (c. 460 - c. 379 BCE), known as the Father of Medicine, was even born.

## Early Life

## An artist's impression of an operation being performed in ancient India. In spite of the absence of anesthesia, complex operations were performed. The practice of surgery has been recorded in India around 800 B.C. This need not come as a surprise because surgery (Shastrakarma) is one of the eight branches of Ayurveda the ancient Indian system of medicine.

## The oldest treatise dealing with surgery is the Shushruta-Samahita (Shushruta's compendium). Shusruta who lived in Kasi was one of the many Indian medical practitioners who included Atraya and Charaka. Shushruta was one of the first to study the human anatomy. In the ShusrutaSamahita he has described in detail the study of anatomy with the aid of a dead body. Shusruta's forte was rhinoplasty (Plastic surgery) and ophthalmialogy (ejection of cataracts).

## Shushruta has described surgery under eight heads Chedya (excision), Lekhya (scarification), Vedhya (puncturing), Esya (exploration), Ahrya (extraction), Vsraya (evacuation) and Sivya (Suturing).

## His Works

## Ophthalmic Surgery

## Shushruta specialized in ophthalmic surgery (extraction of Cataracts). A typically operation per formed by Shushruta for removing cataracts is desired below. "It was a bright morning. The surgeon sat on a bench which was as high as his knees. The patient sat opposite on the ground so that the doctor was at a comfortable height for doing the operation on the patient's eye. After having taken bath and food, that patient had been tied so that he could not move during the operation."

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## "The doctor warmed the patient's eye with the breath ~ of his mouth. He rubbed the closed eye of the patient with his thumb and then asked the patient to look at his knees. The patient's head was held firmly. The doctor held the lancet between his fore-finger, middle-finger and thumb and introduced it into the patient's eye towards the pupil, half a finger's breadth from the black of the eye and a quarter of a finger's breadth from the outer corner of the eye. He moved the lancet gracefully back and forth and upward.

## There was a small sound and a drop of water came out. "The doctor spoke a few words to comfort the patient and moistened the eye with milk. He scratched the pupil with the tip or the lancet, without hurting, and then drove the 'slime' towards the nose.

## The patient got rid of the 'slime' by drawing it into his nose. It was a matter of joy for the patient that the could see objects through his operated eye and the doctor drew the lancet out slowly. He then laid cotton soaked in fat on the wound and the patient lay still with the operated eye bandaged. It was the patient's left eye and the doctor used his right hand for the operation." Does this not sound like the detailed procedure and steps of a cataract operation by an ophthalmic surgeon? But this operation was performed around the 8th Century B.C. by Shusruta.

## Anatomy

## Shushruta was not only one of the earliest pioneers in surgery in the world but also one of the earliest ones to study the human anatomy. In his Samahita, he described in detail the study of anatomy with the use of a dead body. He has described the following in his Samahita, "For these purposes, a perfectly preserved body must be used. It should be the body of a person who is not very old and did not die of poison or severe disease.

## After the intestine have been cleaned, the body must be wrapped in bast (the inner bark of trees), grass or hemp and placed in cage (for protection against animals). The cage should be placed in a carefully concealed spot in a river with fairly gentle current, and the body left to soften.

## "After seven days the body is to be removed from the water and with a brush of grassroots, hair and bamboo it should be brushed off a layer at a time when this is done the eye can observe every large or small outer or inner part of the body, beginning with the skin as each part is laid bare by the brushing."

## Plastic Surgery

## Perhaps the greatest contribution of Shushruta was the operation of rhinoplasty (restoration of a mutilated nose by plastic surgery). The detailed description of the rhinoplasty operation in the Shushruta Samahita is amazingly meticulous and comprehensive. There is evidence to show that his success in this kind of surgery was very high, which attracted people from all over the country and perhaps even from outside. Cutting off of the nose and ears was one of the common modes of punishment in the early Indian kingdoms. Shushruta moved by his intense humane approach to life and equipped with superb surgical skills, did the operation of rhinoplasty with remarkable skill, grace and success. The details of the steps of this operation, as recorded in the Shushruta Samahita, are amazingly similar to the steps that are followed even to-day in such advanced plastic surgery. Indian medical tradition also goes back to Vedic times when the Ashwinikumars, who were practitioners of medicine were given a divine status,. We also have a God of Medicine called Dhanvantari. In historic times the earliest recorded treatise on medicine in India viz., the Shushruta Samahita is dated around the 8th century B.C. Plastic surgery dentistry operation of cataracts, were pioneering advances, in the field of medicine.

### **Other contributions by Sushruta**

**1.** Besides trauma involving general surgery, Sushruta gave an in-depth account of the treatment of **12 varieties of fracture** and six types of dislocation. This continues to spellbind orthopedic surgeons even today.

**2.** He mentioned the principles of traction, manipulation, apposition, stabilization, and postoperative physiotherapy.

**3.** Sushruta also prescribed measures to induce growth of lost hair and removal of unwanted hair.

**4.** He implored surgeons to achieve perfect healing which is characterized by the absence of any elevation, induration, swelling mass, and the return of normal coloring.

### **Golden age of surgery**

Sushruta Samhita remained preserved for many centuries exclusively in the Sanskrit language. In the eighth century AD, Sushruta Samhita was translated into Arabic as 'Kitab Shah Shun al -Hindi' and 'Kitab-I-Susurud.'

The first European translation of Sushruta Samhita was published by Hessler in Latin and in German by Muller in the early 19th century; the complete English literature was done by Kaviraj Kunja Lal Bhishagratna in the three volumes in 1907 in Calcutta.

Sushruta took surgery in medieval India to admirable heights and that era was later regarded as the 'Golden Age of Surgery' in ancient India. The genius of Sushruta prompted eminent surgeon Allen Whipple to declare, **"All in all, Sushruta must be considered the greatest surgeon of the pre-medieval period."**