

# Sushruta and his contributions

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**In news :** The Union Health Minister dedicates the newly constructed Burns and Plastic Surgery Block at the premier All India Institute of Medical Sciences (AIIMS) to Sushruta, the Father of Plastic Surgery

## **A brief History of Sushruta(around 6th century BCE)**

- Sushruta was an Indian physician, who wrote one of the world's earliest works on medicine and surgery and is therefore regarded as the 'Father of Indian Medicine' and 'Father of Plastic Surgery.'
- The ancient surgeon lived in the city of Kashi, now known as Varanasi or Banaras in the northern part of India.
- For Sushruta, the concept of shalya tantra (surgical science) was all-encompassing.
- Examples of some of his groundbreaking operations include rhinoplasty (the repairing or remaking of a nose), removal of a dead fetus, and lithotomy (surgical incision into hollow organs such as the urinary bladder to remove stones, or calculi).
- He also developed many unique and practical techniques to dissect the human body and study its structure.
- His work on the subject, the Sushruta Samhita 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.**

## **Sushruta Samhita**

- Sushruta Samhita remained preserved for many

centuries exclusively in the Sanskrit language.

- Sushruta is known for his pioneering operations and techniques and for his influential treatise **'Sushruta Samhita' or Compendium of Sushruta, the main source of knowledge about surgery in ancient India.**
- **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 Samhita, written in Sanskrit, dates back to the times before Christ and is one of the earliest works in the field of medicine.
- This text forms the foundations of the ancient Hindu form of medicine known as Ayurveda and is highly regarded as one of the 'Great Trilogy of Ayurvedic Medicine.
- This book documented the etiology of more than 1,100 diseases, the use of hundreds of medicinal plants, and instructions for performing scores of surgical procedures – including three types of skin grafts and reconstruction of the nose.
- Skin grafts entail transplanting pieces of skin from one part of the body to another
- Sushruta Samhita is supported not only by anatomical knowledge and surgical procedural descriptions contained within its pages but also by the creative approaches that still hold true today.

### **Sushruta Smamhita: Origin of Rhinoplasty**

- The historical evidences suggest that plastic surgery

originated in India more than two millennia ago and the oldest plastic surgery operation probably relate to nasal reconstruction.

- **Sushruta is believed to be the first individual to describe Rhinoplasty.**

**Rhinoplasty, colloquially known as the 'nose job,' is a surgery performed to achieve two results:**

1. To improve the breathing function of the nose
  2. To improve the cosmetic look of the nose
- It also provides the **first written record of a forehead flap rhinoplasty, a technique still used today to reconstruct a nose. He used a flap of skin from the forehead, called a pedicle, to form a new nose.**
  - The practice of Rhinoplasty slowly started as a result of the need to reconstruct the external nose and later developed to full-fledged science.

### **His experimental teachings**

- Incision on vegetables such as watermelon and cucumber, probing on worm-eaten woods are some instances of his experimental teachings.
- Sushruta was one of the first people in human history to suggest that a student of surgery should learn about the human body and its organs by dissecting a dead body
- According to Sushruta, "Anyone, who wishes to acquire a thorough knowledge of anatomy, must prepare a dead body and carefully observe and examine all its parts."

### **Other contributions**

- Along with 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.
- The ancient surgeon mentioned the principles of

traction, manipulation, apposition, stabilization, and postoperative physiotherapy.

- He also prescribed measures to induce growth of lost hair and removal of unwanted hair.
- Sushruta implored surgeons to achieve perfect healing which is characterized by the absence of any elevation, induration, swelling mass, and the return of normal coloring.