

## HUMAN ANATOMY IN *ATHARVAVEDA*

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### ABSTRACT

Among the four *Vedas*, *Atharvaveda* is the fourth and last, which contains vast information about the topics related to medicine. It gives details about conception, development of foetus, complications of pregnancy and also about parturition. *Atharvaveda* mentions about 360 bones and different organs of the human body. The *Atharvan* terminology is being used in *Ayurveda*. The anatomical information found in the *Atharvaveda* has been presented in this article with appropriate references.

*Atharvaveda* is the fourth and last *Veda* of *Hindu* literature. It is mainly contributed by two sages, *Atharvan* and *Angīra*. *Atharvaveda* contains vast information about the topics related to medicine and reflects the knowledge of the people of that period. According to *Suśruta*, *Āyurveda* is based on *Atharvaveda* and it is a *Upāṅga* of *Atharvaveda* (*Su. Sūtra. 1/6*).

*Atharvaveda* gives details about human life i. e. about conception, development of foetus, complications of pregnancy, parturition and also gives description about bones, different organs, circulatory system (veins and arteries) etc. Though it was the earliest record and primitive in nature, it has guided people to develop *Āyurveda*.

### Conception

According to *Atharvaveda* conception is a sacred affair over which Gods preside. (*AV. Kāṇḍa V. 25.3,4*). It is said that a celibate woman (*Perihasta*) who is desirous of a son, whom so ever she accepts as her husband, God binds him with her for the purpose that she may give birth to a son (*AV. Kāṇḍa. VI. 81. 3*).

In *Atharvaveda* it is mentioned that man possess *Retas* (semen) and discharges it in the womb of a woman during the course of sexual act. This indicates about

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their knowledge that, semen contains seeds (sperms) which procreate a new life in the womb of a woman (AV. Kāṇḍa. VI.11.1&2).

More interestingly there was a medicine which is to be given to mother before conception i.e. for getting a male baby. It means technique to get a male baby is also known to them and they used an auspicious herb called 'Riṣabhaka' for the above purpose (AV. Kāṇḍa. II.23.4).

### **Development of the foetus**

It is mentioned that all the prevailing and powerful Gods protect and strengthen the womb and shape the joints (AV. Kāṇḍa. V.25.4 & 5).

According to V.W.Karambelkar, the author of "Atharvaveda and Āyurveda" Atharvaveda did not give details of the subject of pregnancy but the "Garbha Upaniṣad" which declared as the "Paippalāda Śāstra" has given the details of development of foetus, for example, the hard parts of the body are *Prthvi* (earth) the liquid parts are *Ap* (water), that which is hot is *Tejas* (heat/light), that which moves about is *Vāyu* (air) and that which is vacuous is *Ākāśa* (space).

It is also said that, by the excess of semen over the blood, a male child is produced. By the excess of blood a female child is born and when two (i.e. semen and blood) are equal a hermaphrodite is produced. When air enters womb somehow and divides the zygote into two, then twins are born. If the minds of the parents are disturbed at the time of coitus, the issue becomes either blind or lame or dwarf.

Regarding the duration of pregnancy Atharvaveda mentions that, nourishing God develops the foetus in a noble way in the body of the womb and the male child is to be born in the tenth month. (AV. Kāṇḍa. V. 25.10, 11, 12 & 13; AV. Kāṇḍa. II.23.2).

### **Bones as mentioned in Atharvaveda**

In Atharvaveda we also find clear information about anatomical descriptions of the bones, joints and organs of the human body (AV. Kāṇḍa. X.2.1-8.).

<i>Asthi</i>	-	Bone
<i>Pārṣṇi</i>	-	Heels
<i>Gulphau</i>	-	Ankles
<i>Angulih</i>	-	fingers

<i>Ucchal ankhau</i>	-	Metatarsals/Metacarpals
<i>Asthivantau</i>	-	Knee caps/ Patellae
<i>Janghe</i>	-	Tibia and fibula in leg
<i>Janunoh Sandhi</i>	-	Knee Joint
<i>Śroni</i>	-	Pelvic Cavity
<i>Uru</i>	-	Thighs
<i>Urah</i>	-	Chest cavity
<i>Grīvah</i>	-	Wind Pipe
<i>Kaphodau</i>	-	Shoulder blades/scapulae
<i>Skandanau</i>	-	Shoulder bones
<i>Prsthih</i>	-	Back bone
<i>Amśau</i>	-	Collar bones
<i>Lalātam</i>	-	Brow
<i>Kakātika</i>	-	Central facial bone
<i>Kapālam</i>	-	Cranium with temples
<i>Cintyam Hanvoh</i>	-	The pile of jaw
<i>Kikāsah</i>	-	Spinal column
<i>Anūkya</i>	-	Thoracic portions of spine.

The above list of bones gives us the impression that *Vedic* people had carefully studied the human skeleton. It is not known that whether this study was made with the help of some form of dissection of a dead or decayed body.

It seems that *Atharvaveda* has mentioned the number of bones in human body as 360 (*AV.Kāṇḍa. X.8.4.*) but in a fashion that it is very difficult to find now. But *Suśruta*, the Father of Surgery accepts 300 bones (Bones in the branches in arms & feet are 120, bones in the pelvic region, back and the chest are 120 and above the trunk are 60). He declared that *Āyurveda* and its surgical branch which he has dealt was derived from *Atharvaveda* (*Su. Śārīra 5/18 & Su. Sūtra 1/6*).

### Organs as mentioned in *Atharvaveda*

*Atharvaveda* has mentioned the organs of the body in a systematic manner while discussing about the *Yakṣma* (consumption) and its management (AV. *Kāṇḍa*. II.33.1-6). Some more information is available in *Atharvaveda* in different hymns and different contexts (AV. *Kāṇḍa*.I. 3.6, 7 & 8; IV.12.3, 4 & 5).

<i>Akṣibhyam</i>	-	Eyes	(	AV	<i>Kāṇḍa</i>	II	33	.1	)
<i>Nāsikābhyam</i>	-	Nostrils	(	“	“	“	“	“	)
<i>Karṇābhyam</i>	-	Ears	(	“	“	“	“	“	)
<i>Çubuka</i>	-	Chin	(	“	“	“	“	“	)
<i>Śirsa</i>	-	Head	(	“	“	“	“	“	)
<i>Mastiṣka</i>	-	Brain	(	“	“	“	“	“	)
<i>Jihva</i>	-	Tongue	(	“	“	“	“	“	)
<i>Grīva</i>	-	Neck	(	“	“	“	“	.2	)
<i>Bāhubhyam</i>	-	Arms	(	“	“	“	“	“	)
<i>Hṛdaya</i>	-	Heart	(	“	“	“	“	“	)
<i>Uṣṇiha</i>	-	Nape of the neck	(	“	“	“	“	3	)
<i>Kikāsa</i>	-	Spinal column	(	“	“	“	“	2	)
<i>Plāśi/Kloma</i>	-	Lungs/Pancreas	(	“	“	“	“	3	)
<i>Halikṣṇa</i>	-	Gall bladder	(	“	“	“	“	“	)
<i>Matāsna</i>	-	Duct of gall bladder	(	“	“	“	“	“	)
<i>Plīha</i>	-	Spleen	(	“	“	“	“	“	)
<i>Yakna</i>	-	Liver	(	“	“	“	“	“	)
<i>Āntra</i>	-	Intestine	(	“	“	“	“	4	)
<i>Guda</i>	-	Anus/Rectum	(	“	“	“	“	“	)
<i>Vanisthu</i>	-	Rectum	(	“	“	“	“	“	)
<i>Udara</i>	-	Abdomen	(	“	“	“	“	“	)

<i>Kukṣi</i>	-	Side of abdomen	(	”	“	“	“	“	)
<i>Plāśi</i>	-	Colon	(	“	“	“	“	“	)
<i>Nābhi</i>	-	Umblicus/Navel	(	“	“	“	“	“	)
<i>Puritāt</i>	-	Pitutory gland	(	“	“	X	9	.15	)
<i>Sahakaṇṭika</i>	-	Oesophagus/ Trachea	(	“	“	“	“	“	)
<i>Bhasādya</i>	-	Glans penis	(	“	“	“	33	.5	)
<i>Bhasāda</i>	-	Buttock	(	“	“	“	“	“	)
<i>Bhamśasa</i>	-	Vagina	(	“	“	“	“	“	)
<i>Majja</i>	-	Marrow	(	“	“	“	“	“	)
<i>Snāyu</i>	-	Tendons	(	<i>AV Kāṇḍa II. 33.7, VI. 50.9; XI.8.11, 12; XII. 5. 69</i>					)
<i>Dhamani</i>	-	Artery	(	<i>AV Kāṇḍa II 33 .6</i>					)
<i>Pāṇi</i>	-	Hand	(	“	“	“	“	“	)
<i>Angulih</i>	-	Fingers	(	“	“	“	“	“	)
<i>Nakha</i>	-	Nails	(	“	“	“	“	“	)
<i>Loman</i>	-	Hairs	(	“	“	“	“	7	)
<i>Tvaça</i>	-	Skin	(	“	“	“	“	“	)
<i>Mehanam</i>	-	Urinary passage	(	“	“	“	3	6	)
<i>Vasti</i>	-	Urinary bladder	(	“	“	“	3	7&8	)
<i>Basti bila</i>	-	Urinary orifice	(	“	“	“	“	.8	)
<i>Meda</i>	-	Adipose tissue	(	“	“	IV	27	.05	)
<i>Lohitam</i>	-	Blood	(	“	“	XI	7	.25	)
<i>Vapa</i>	-	Omentum, greater	(	“	“	XX	5	.02	)
<i>Gavinyau</i>	-	Follopian tubes	(	“	“	I	.3.	.6	)
<i>Muṣkau</i>	-	Testes	(	“	“	VI	127	.02	)

<i>Stanau</i>	-	Breast	(	'	"	<i>IX</i>	<i>1</i>	<i>.07</i>	)
<i>Parśva</i>	-	Ribs	(	"	"	<i>XI</i>	<i>3</i>	<i>.12</i>	)
<i>Hanu</i>	-	Mandible	(	"	"	<i>X</i>	<i>2</i>	<i>.09</i>	)
<i>Danta</i>	-	Teeth	(	"	"	<i>V</i>	<i>18</i>	<i>.08</i>	)
<i>Garbha</i>	-	Uterus/Foetus	(	"	"	<i>I</i>	<i>11</i>	<i>.02</i>	)
<i>Jarāyu</i>	-	Placenta	(	"	"	<i>I</i>	<i>11</i>	<i>.04</i>	)
<i>Vṛkkau</i>	-	Kidneys	(	"	"	<i>IX</i>	<i>12</i>	<i>.13</i>	)
<i>Pajśyan</i>	-	Stomach	(	"	"	<i>IX</i>	<i>12</i>	<i>.05</i>	)
<i>Kārukārini</i>	-	Bones of hands & feet	(	"	"	<i>XI</i>	<i>09</i>	<i>.08</i>	)

The most vital organs of the body viz. the head, heart and bladder are clearly mentioned in *Atharvaveda* ( *AV. Kāṇḍa. X.2.6* ). As per the *Atharvaveda* the *Sira* is in the sense of head and - *Mastiṣka* is in the sense of brain ( *AV. Kāṇḍa. X.2.8 & 26* ).

#### **Circulatory system as mentioned in *Atharvaveda***

The words like *Hira*, *Sira*, *Dhamani* and *Nādi* are also found in *Atharvaveda*. They are related to circulatory system. But according to Bolling, the author of "Encyclopedia of Religion and Ethics" the difference between *Dhamani* and *Sira* was not known to *Atharvan*.

The apparent distinction between veins & arteries is offset by the occurrence of the same words i.e. with more general sense of internal canals meaning entrails. The word *Hira* was used in the - sense of vein while discussing measures to stop excessive flow of blood from women during menstruation ( *AV. Kāṇḍa. I.17.1, 3 ; & VIII. 35.2* ). At other place *Atharvaveda* mentions about *Hira* (*Sira* ) as well as *Dhamani* and adds that to stop the issue of a woman enemy, close the apertures of a hundred *Hiras* and a thousand *Dhamanis* and take the revenge. It indicates that *Atharvan* has an idea about the number of vessels supplying blood to the female genital organs ( *AV. Kāṇḍa VII. 35.2* ).

*Hṛdaya* (Heart ) has been mentioned and its connection with *Manas* and *Çitta* has also been referred in *Atharvaveda* (AV.Kāṇḍa.-II. 33.2 & III. 25.6 ).

*Srotas* (channels ) of the human body which allow the flow of bodily liquids from one place to another are also referred by *Atharvan* (AV.Kāṇḍa X.2 .11 ). The same ideology has been followed by *Caraka* and *Suśruta*.

*Atharvan* says that God had stored floods of blood in human body i.e. in *Srotas* which turn in all directions, move in diverse organs and flow in arteries. Arteries are hasty, red, purple and copperhued running in all the ways i.e. upward, downward and oblique (AV. Kāṇḍa X.2 .11 ).

The term *Nādi* has also been referred to duct (but not in the sense of pulse ) while discussing the ducts over the *Muṣka* (testes ) through which semen flows. The word *Nādi* is related etymologically with *Nada* (reed) hollow with in and which grows in the rainy season (AV. Kāṇḍa VI.138.4 & 5 ).

### **Basic elements of the body as mentioned in *atharvaveda***

*Rasa* (Plasma ), *Asṛk/Rakta* (blood ), *Māmsa* (flesh), *Medas* (fat ) , *Asthi* (bone), *Majja* (bone marrow ) , *Retas/Śukra* (semen ) are mentioned in *Atharvaveda* with the full knowledge of their inter relation (AV. Kāṇḍa IV. 12. 2-5). At one place *Atharvaveda* points out that “Who put the semen in him with the thought. Let the thread of life be spun out” (AV. Kāṇḍa X 2 .17). Thus semen is considered the thread of life and the word “*Tantu*” in the hymn may be referred to chromosomes (which are thread like ) present in the sperm (AV.Kāṇḍa X.2 .17 ).

There are references also about *Ojas* in *Atharvaveda* at two places in the sense of *Bala* (strength) (AV. Kāṇḍa I.12 .1 & II . 17 .1 )

### **The nervous system ( Information as available in *Atharvaveda* )**

*Atharvaveda* refers to *Mastiṣka* in the sense of brain and there is mention about *Manas* and *Citta* and their functions as well. Here both *Manas* and *Citta* are counted separately (AV. Kāṇḍa X.2 .8 & 26; III.6 .8 ). At times these two words have been used with out distinction. Their connection with *Hṛdaya* is also referred (AV. Kāṇḍa III.25 .6). In addition intimate relation between head and the heart has also been

apprehended to some extent (*AV. Kāṇḍa X.2 .26* ). It is understood that heart was considered as the seat of consciousness.

With all these details it may be concluded that *Atharvans* have initiated process of recording the medical knowledge. Most of the terms coined by *Atharvan* for the parts of the body have been adopted in later Indian medical literature i.e. *Caraka Samhitā*, *Suśruta Samhitā* and *Aṣṭāṅga Hṛdaya Samhitā*.

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## सारांश

### अथर्ववेद में शारीर रचना

- पी.वी.वी.प्रसाद

वेदों में अथर्ववेद चौथा एवं अंतिम वेद है। यह गर्भोत्पत्ति, गर्भस्थ शिशु का वृद्धि के सम्बन्ध में तथा गर्भ कालीन होने वाले बाधाएँ और सूतिका प्रक्रिया के सम्बन्ध में भी विवरण देती है। अथर्ववेद में 360 अस्तियाँ, कई तरह की शरीर अंगों के सम्बन्ध में विवरण दिया गया है। अथर्ववेद में दिया गया अंग और उनके नाम आयुर्वेद में वर्तमान में भी प्रयोग किये जाते हैं। इस लेख में अथर्ववेद में उपलब्ध शरीर रचना सम्बन्ध विषय उनके संदर्भों के साथ प्रस्तुत किया गया है।