Study of Dhatu Poshan Nyaya (Metabolic Transformation) in Ayurvedic Perspective.

The means "Dhatu" comes from the Sanskrit ‘Dharanat Dhatava’1 Sapta Dhatu is real; it was built of concrete substances like the plasma and flowing Rasa and Rakta and so forth. The Sapta Dhatus are continually being produced with the appropriate components from Ahara and only in humans do these processes take place to preserve equilibrium state. These Dhatu come in two varieties: Asthayee or Poshaka and Sthayee or Poshya (stable or to be fed) (unstable orwhich nourishes). Sapta Dhatu is already a steady and equal Dhatu. Precursor nutrients and chemicals that were derived from Ahara, are intended to maintain, synthesise, and provide sustenance for Sthayee Dhatus. Thus, vital Rasas and Malas are the source of Dhatu Samya as it provide the body with balanced nutrition (homeostasis). According to Sushruta, the Dosha, Dhatu,and Malas are the foundation, support, or pillar of the body.

The Nyaya is the analysis of a topic using appropriate evidence and logic. One's perspective, or nyaya, is how they see a process to be unfolding and can range from one to another. Additionally, in the case of Dhatu Poshan, Many theories have been put forth. Various hypotheses have been proposed on the process of

the nourishment of various nutrients that occurs in the body. established. The academics have attempted to explain the reality of the main Nyayas regarding Dhatu Paka are physiological. The following are the digestive and metabolic processes.3 Even bodily tissues are widely accepted. Numerous ideas have been developed regarding the process by which the body receives various nutrients (from Ahara Rasa upto Sukra).

Ksheera Dadhi Nyaya (Metabolic Law of Transformation): - This theory speaks of transformation of one tissue into another in a particular order through the activity of respective Dhatvagni. The example given to state this theory is that of transformation of milk into curd, curd into butter and butter into ghee in the particular order.

Table 1 Shows *Ksheera Dadhi Nyaya*

Rasa **(Ksheera) Milk** →	***Rakta*** **(Dadhi) Curd** →	***Mamsa*** **Butter** →	***Medas*** **Cheese** →	***Asthi*** ***Ghrita*** →	***Majja*** ***Ghrita mand*** →	***Sukra (Sarva dhatu sara)***

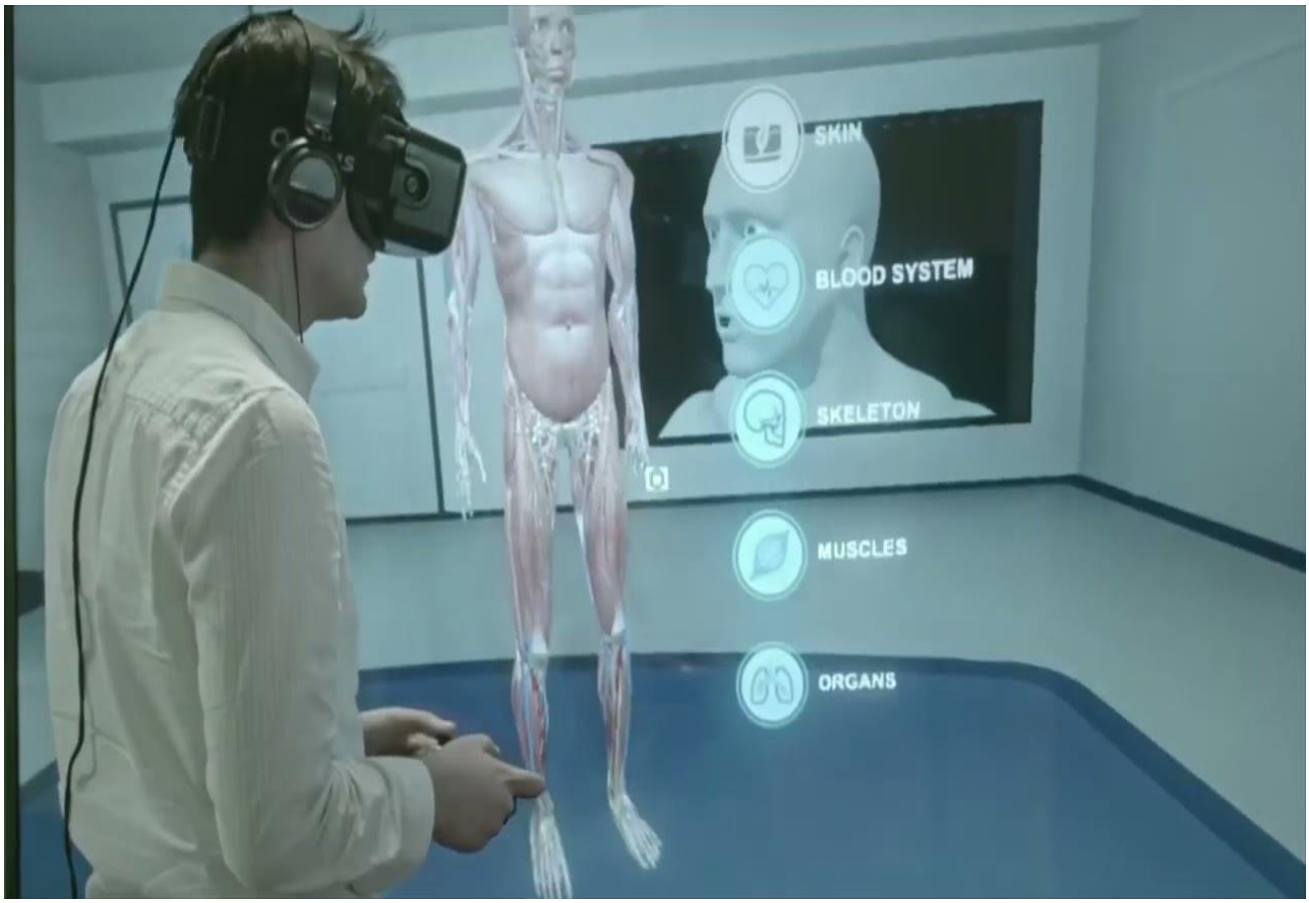
Khale Kapota Nyaya: This idea describes how tissue factors control blood flow on their own. Depending on the specific tissue's metabolic requirements, blood flow is controlled to that area of the body. This hypothesis is illustrated by the story of various birds picking up grains from the same field and then flying back to their starting points. Here, the amount of grains is entirely according to the individual pigeon's requirements.

Kedari kulya nyaya (The law of transmission) Explaining this theory of dhatupoṣaṇa, Cakrapani has stated that ahära through the process of digestion get changed a rasa dhatu and nourishes it. The remaining part of anna rasa (digestive product of food) now present in the circulation (sthai rasa dhātu) proceeds to nourish the rakta dhātu while passing through the places of blood (vakrta, pliha etc.) in the body, recieves the smell and colour of blood, while some portion of it is utilized in the nourishment of rasa.

Eka Kala Dhatu Poshana Nyaya(Spontaneous process): -Arundutta has described that the ahara rasa percolates into all the dhatu vaha srotas simultaneously. This theory is known as eka dhatu poshana paksha. 8,9 The

ahar rasa circulates in whole body continuously for all times by normal activity of vyana vayu.

VR application in Ayurvedic Education "AyurVR"



- Our **"AyurVR"** app for understanding Dhatuposhan Nyaya will include:

Visual Transformation Simulations: Users can witness the complete transformation of nutrients into different tissues, like bone and muscle, in a visually engaging manner.

Circulatory System Exploration: A virtual journey through the circulatory system, showing how nutrients travel from the digestive system to various tissues.

Interactive Decision-Making Scenarios: Users can experience the concept of tissue-selective nutrient uptake, making choices within the VR environment

Supervision and Guidance: Children using VR for medical education should ideally have adult supervision and guidance to ensure they understand the content and use the technology safely.

Ethical and Emotional Considerations: Teaching children about medical procedures through VR should be done thoughtfully, taking into account the emotional impact it might have. Ensuring a supportive environment and providing proper context is essential.

Engagement: Children are often more naturally drawn to interactive and visually engaging technology. VR can make learning about the human body and medical processes exciting and captivating for young learners.

Memorable Learning: The immersive nature of VR can make learning experiences more memorable for children. When they actively participate in virtual explorations, it can leave a lasting impression

Multi-sensory Learning: Engage multiple senses with 3D models, audio explanations, and interactive elements.

Data Visualization: Complex data presented in an easily understandable manner, including 3D graphs and charts.

Quizzes and Assessments: Test users' comprehension with in-app quizzes and assessments.

Collaborative Learning: Users can collaborate within the virtual environment, facilitating group discussions and peer learning.

Customizable Learning Paths: Adapt to users' knowledge levels and allow for personalized learning journeys.

Real-world Applications: Show practical applications of the theories in fields like sports nutrition and medicine.

Feedback Mechanism: Users can seek clarification or ask questions through virtual mentors or chatbots within the VR app.

These features will make the app a comprehensive and interactive tool for understanding Dhatuposhan Nyaya and its application at a tissue level.

Also, VR has the potential to revolutionize medical education by providing an immersive and effective learning experience. When used for teaching children about the human body and medical processes, it can make learning more engaging and memorable. However, it also raises concerns related to age-appropriateness, emotional impact, and content curation, which need to be carefully addressed to ensure a positive educational experience for young learners.