

HOLISTIC PERSPECTIVE ON SHARIRIK AND MAANSIK VRIDDHI: AN AYURVEDIC AND MODERN UNDERSTANDING OF GROWTH AND DEVELOPMENT FROM INFANCY TO ADOLESCENCE

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Received: 09 Aug 2025, Revised and Accepted: 17 Sep 2025

ABSTRACT

Human development is a complex and dynamic process, unfolding from the moment of conception through adolescence. It comprises physical, mental, neurological, and emotional changes that are influenced by genetic, environmental, nutritional, and sociocultural factors. Ayurveda, the ancient Indian science of life [1], provides a profound understanding of growth and development (Vridhhi and Vikaas) through the lens of Sharirik (physical), Maansik (mental), and Aatmik (spiritual) development. This article aims to provide a comprehensive view integrating classical Ayurvedic principles with modern biomedical sciences. It addresses five core domains: Physical parameters of growth, psychological development, personality formation, neurological development and reflexes, and influencing factors on developmental trajectories. This integrative perspective serves as a guiding framework for holistic pediatric care and early developmental monitoring.

Keywords: Sharirik Vridhhi, Maansik Vridhhi, Pediatric ayurveda, Neurological reflexes, Personality development, Growth factors, Vridhhi-Karak Bhava, Samskara, Balaroga, Swarnaprashana

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SHARIRIK VRIDDHI (PHYSICAL GROWTH INDICATORS)

In Ayurveda, *Sharirik Vridhhi* encompasses the quantitative and qualitative development of body tissues (*Dhatu*), organs (*Anga-Pratyanga*), and systems. It is closely related to *Bala* (strength), *Ayu* (lifespan), and *Ojas* (vital essence). In modern pediatrics, physical growth is monitored through anthropometric parameters such as height, weight, head and chest circumference, and dentition.

Key parameters of physical growth

Infographic 1: Growth chart for height and weight from birth to 18 years

Parameter	Norms and timeline	Ayurvedic relevance
Weight	Birth weight ~2.5–3.5 kg; doubles by 5 months, triples by 1 year	<i>Medo Dhatu</i> status, <i>Stanya</i> quality
Height (Lambaai)	~50 cm at birth; ~75 cm at 1 year; ~100 cm at 4 years	Linked to <i>Asthi Dhatu</i> and genetic makeup (<i>Bija</i>)
Head Circumference	~35 cm at birth; rapid growth in first year (~1 cm/month)	Indicator of <i>Majja Dhatu</i> and <i>Ojas</i>
Chest Circumference	Equals head circumference by 1 year	Correlates with <i>Prana Vata</i> and lung development
Dentition	First tooth ~6 months; 20 deciduous teeth by 2.5 years	Reflects <i>Asthi Dhatu</i> development and <i>Pitta</i> activity

Ayurveda further describes dentition in stages: *Dantotpatti* (eruption), *Dantasthiti* (maintenance), and *Darbhanga* (shedding), emphasizing diet, digestion (*Agnibala*), and maternal health (*Matruja Bhava*).

MAANSIK VRIDDHI (PSYCHOLOGICAL DEVELOPMENT)

Maansik Vridhhi deals with the development of mind, emotions, intellect (*Buddhi*), and behavior. Ancient texts emphasize the role of *Manas*, *Sattva*, *Rajas*, and *Tamas* in shaping mental attributes.

Modern psychology describes mental development using psychoanalytic (Freud), psychosocial (Erikson), and cognitive (Piaget) frameworks. These stages align with Ayurvedic observations of age-specific mental traits.

Key psychological elements

- ID (Freud's Theory): Present from birth; operates on pleasure principle.
- Ego: Develops around 1–3 years; reality-oriented; linked to autonomy.
- Superego: Begins forming by age 5; governs morality and conscience.

Associated Ayurvedic principles

- *Sattva*, *Rajas*, *Tamas*: Mental *gunas* influencing behavior and temperament.
- *Ahara* and *Vihara*: Diet and lifestyle have a direct impact on cognition and emotions.
- *Samskara*: Cultural and prenatal impressions.

Influential stages in Maansik Vridhhi:

- Infancy (0–1 years): Development of trust, emotional bonding.
- Toddlerhood (1–3 years): Self-awareness, exploration, language.
- Preschool (3–6 years): Initiative, imagination, gender roles.
- Middle childhood (6–12 years): Self-discipline, reasoning.
- Adolescence (12–18 years): Identity formation, independence, sexual maturation.

Ayurveda underscores that the *Sattva-Sara* child, born with predominance of purity, has better adaptability, memory, and emotional regulation.

PERSONALITY DEVELOPMENT: INFANCY TO LATE ADOLESCENCE

Personality is the integrated pattern of thinking, feeling, and behaving. It evolves through interaction between biological predispositions and life experiences.

Erikson's psychosocial stages of personality development

1. Trust versus mistrust (0–1 years) – Nurturing and responsive care builds trust.
2. Autonomy versus shame/doubt (1–3 years) – Independence encouraged.

3. Initiative versus guilt (3–6 years) – Role exploration and confidence.
4. Industry versus inferiority (6–12 years) – Success in school and activities.
5. Identity versus role confusion (12–18 years) – Self-concept and values formation.

Freud’s psychosexual stages

- Oral (0–1 years), Anal (1–3 years), Phallic (3–6 years), Latency (6–12 years), Genital (12+ years)

Ayurveda relates these to *Vata-Pitta-Kapha* dominance at different stages and *Prakriti* (constitutional) makeup.

- Kapha dominance (infancy): Calm, attached.
- Pitta dominance (childhood): Assertive, intelligent.
- Vata dominance (adolescence): Creative, restless.

Cultural influence in Ayurveda

Samskaras (naming, annaprashan, vidyarambha) directly shape identity and conduct. Proper emotional support and *Sattvic Ahara* promote balanced personality.

NEUROLOGICAL DEVELOPMENT AND REFLEXES

Neurodevelopment is a vital indicator of CNS maturity. Primitive reflexes, present at birth, serve survival functions and are gradually replaced by voluntary motor control.

In Ayurveda, neurological development corresponds to the maturation of *Majja Dhatu*, *Vata Dosha*, and *Indriya Bhava*. *Majja* nourishes the brain and nerves, while *Vata* governs movement and reflex integration.

FACTORS AFFECTING GROWTH AND DEVELOPMENT (VRIDDHI-KARAK AND MAND-KARAK BHAVA)

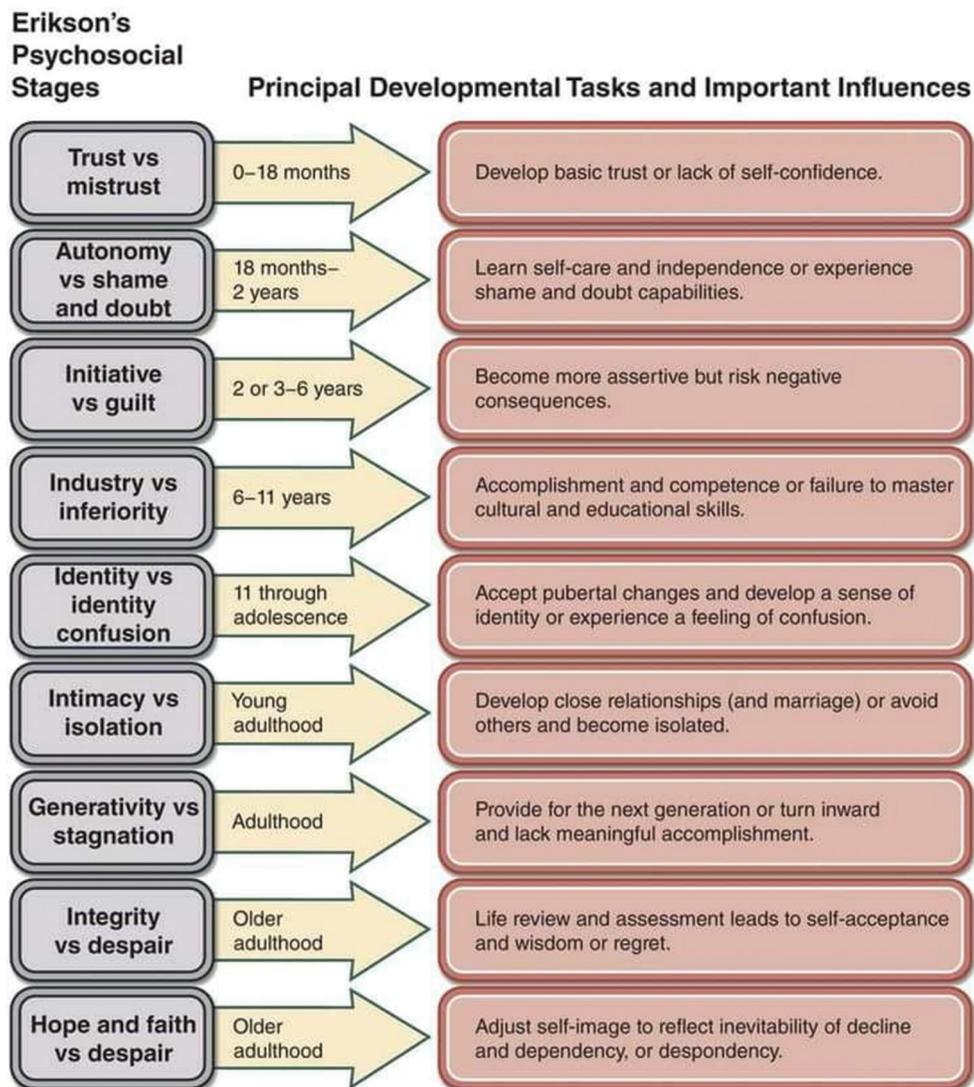
Ayurveda describes multiple factors that either support (*Vridddhi-Karak*) or hinder (*Mand-Karak*) development, as outlined in *Kashyap Samhita*, *Ashtanga Hridaya*, and *Charaka Samhita*.

Vridddhi-Karak Bhava (growth-promoting factors)

- Shuddha Beeja and Beeja Bhaga (Healthy genetic material)
- Satmya Ahara (Balanced, suitable diet)
- Snehana and Abhyanga (Oil massage and care)
- Stanya-poshan (Proper breastfeeding)
- Clean environment (Desha), Proper seasons (Kala)
- Parental Samskaras and positive stimulation

Mand-Karak Bhava (growth retarding factors)

- Agnimandya (Poor digestion)
- Ama (Toxins), Malnutrition, Chronic infections
- Inadequate breastfeeding or overfeeding
- Physical or emotional trauma
- Overexposure to screens, toxins, or poor sleep habits



Flowchart 1: Progression of psychological development with milestones

Freud and Erikson Compared

Comparing Theories of Development

Sigmund Freud's psychosexual theory and Erik Erikson's psychosocial theory are two well-known theories of development. While he was influenced by Freud's ideas, Erikson's theory differed in a number of important ways. Like Freud, Erikson believed that personality develops in a series of predetermined stages. Unlike Freud's theory of psychosexual stages, Erikson's theory describes the impact of social experience across the whole lifespan. Compare and contrast these two theories by looking at the overview of developmental stages provided in the chart below.

Approximate Ages	<u>Freud's Stages of Psychosexual Development</u>	<u>Erikson's Stages of Psychosocial Development</u>
Birth to 1 year	<p><u>Oral Stage</u></p> <p>A child's primary source of pleasure is through the mouth, via sucking, eating and tasting.</p>	<p><u>Trust vs Mistrust</u></p> <p>Children learn to either trust or mistrust their caregivers.</p>
1-3 years	<p><u>Anal Stage</u></p> <p>Children gain a sense of mastery and competence by controlling bladder and bowel movements.</p>	<p><u>Autonomy vs. Doubt</u></p> <p>Children develop self-sufficiency by controlling activities such as eating, toilet training and talking.</p>
3-6 years	<p><u>Phallic Stage</u></p> <p>The libido's energy is focused on the genitals. Children begin to identify with their same-sex parent.</p>	<p><u>Initiative vs. Guilt</u></p> <p>Children begin to take more control over their environment.</p>
7-11 years	<p><u>Latent Period</u></p> <p>The libido's energy is suppressed and children are focused on other activities</p>	<p><u>Industry vs Inferiority</u></p> <p>Children develop a sense of competence by</p>

Chart 1: Comparison of Freud and Erikson's theories

Prabhavit Karne Wale Kaarak (influencing factors)

- **Genetic constitution (Prakriti, Beeja)
- Parental health and mental status
- Socioeconomic status and cultural practices
- Hormonal influences (GH, thyroid, sex hormones)
- Spiritual nurturing and *Daiva Bala*

Clinical application and monitoring

A combined approach using Ayurvedic concepts and biomedical tools ensures better monitoring:

- Regular anthropometric assessment
- Observation of behavior, social interaction, and learning
- Reflex monitoring

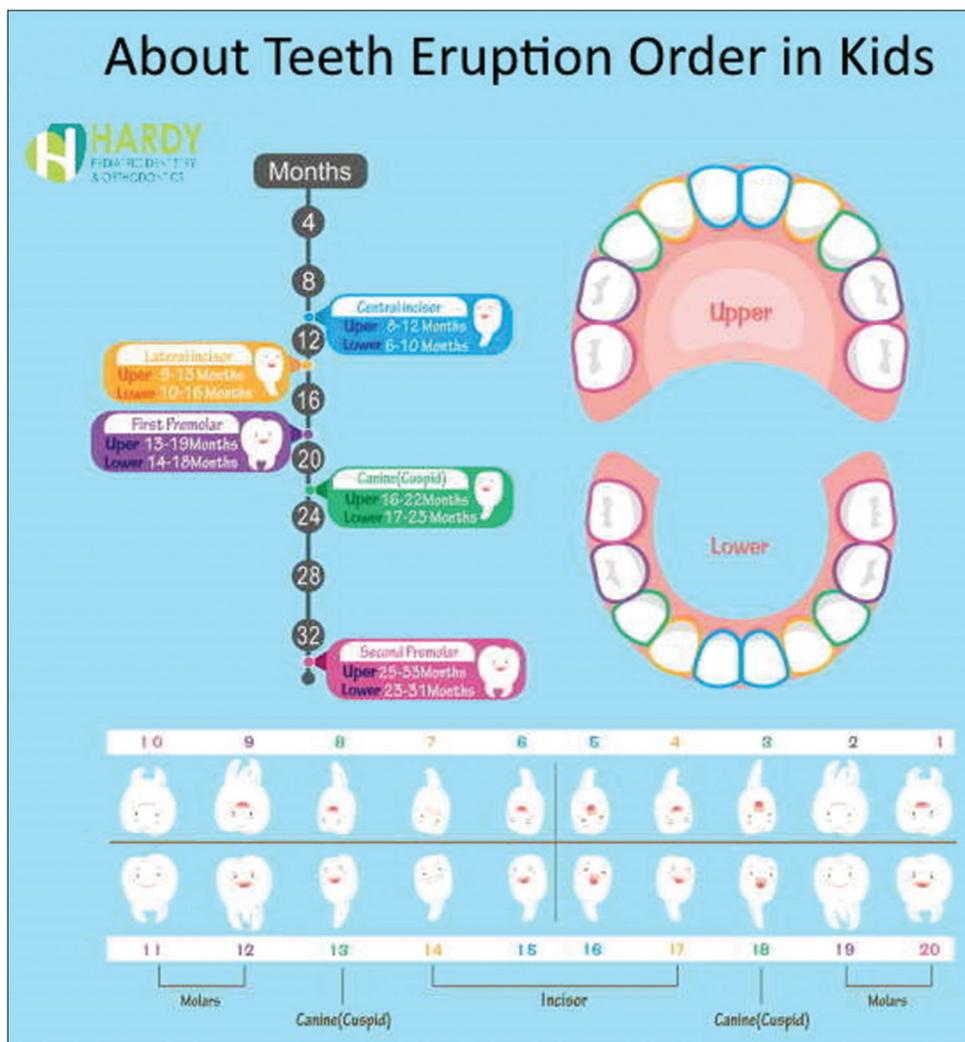


Fig. 1: Dentition timeline with tooth eruption sequence

Table 1: Reflexes with clinical and ayurvedic interpretation

Reflex	Appears	Integrates/ends	Clinical significance
Rooting	Birth	4 months	Feeding readiness
Sucking	Birth	4 months	Nutritional intake
Moro (startle)	Birth	4-6 months	CNS integrity
Palmar grasp	Birth	5-6 months	Hand development
Plantar grasp	Birth	9-12 months	Lower limb tone
Asymmetric tonic neck (ATNR)	Birth	4-6 months	Visual coordination
Babinski	Birth	Up to 2 years	Corticospinal tract development
Parachute (protective)	6-9 months	Persists	Motor maturity marker

- Developmental milestones checklist
- Inclusion of *Samskara*, *Swarnaprashana*, *Bala Chikitsa*, *Ahara Kalpana*, and *Panchakarma* in pediatric practice

CONCLUSION

Growth and development are deeply interconnected processes shaped by physical, mental, emotional, and environmental influences. Ayurveda provides a multidimensional framework to assess and promote these processes in children. Integrating Ayurvedic knowledge with modern science not only facilitates early diagnosis and preventive care but also

offers tools for nurturing resilient, emotionally balanced, and healthy individuals. Emphasis on *Samskara*, *Ahara*, *Dinacharya*, and *Ritucharya* during formative years lays a strong foundation for lifelong health.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the author(s) used generative AI and AI-assisted tools (ChatGPT, developed by OpenAI) for purposes of language refinement, grammar improvement, and structural rephrasing of sentences. The AI tools were not used for generating the core scientific content, data interpretation, or drawing conclusions. All intellectual and scholarly contributions, including conceptualization, literature review, analysis, and final approval of the manuscript, were carried out solely by the author(s). The author(s) take full responsibility for the content of the publication.

AUTHOR'S CONTRIBUTION

Dr. Riya conceptualized the study, conducted the literature review, integrated Ayurvedic and modern perspectives, and prepared the manuscript. The author reviewed and approved the final version of the article.

CONFLICTS OF INTEREST

The author declares no conflicts of interest regarding the publication of this article.

AUTHOR'S FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The work was self-funded by the author.

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