

## Factors Affecting Motor Development

PED 201  
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### Key Concept

*Both the Processes and Products of Motor Development Are Influenced by a Wide Variety of Factors Operating in Isolation and in Conjunction With One Another.*

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### Factors Affecting Motor Development & Growth

- Genetics
- Experience
- The demands of the task.

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### Refining...developing

- Part of a complex interaction of...
- This interaction continues throughout life...

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### *Factors Within the Individual*

#### Developmental Direction

- Cephalocaudal development
- Proximodistal development

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### *Factors Within the Individual*

- Neuro-motor maturational principles.

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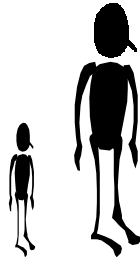
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### *Factors Within the Individual*

#### Rate of Growth

- Self-regulation
- Placticity



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### *Factors Within the Individual*

#### Reciprocal Interweaving

- The intricate interweaving of neural of opposing muscle systems into an increasing mature relationship.

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### *Factors Within the Individual*

#### Reciprocal Interweaving

- Differentiation
- Integration

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*Factors Within the Individual*

- Readiness
- Critical and Sensitive Learning Periods

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*Factors Within the Individual*

- Individual Differences
- Phylogeny and Ontogeny

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*Factors in the Environment*

- *Infant bonding* (Imprinting vs. Sensitive periods vs. Long term outcomes)

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*Factors in the Environment*

- *Infant stimulation* (Structured activity programs vs. Normal play environments)

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*Factors in the Environment*

- *Infant deprivation* (Maturation vs. Experience)

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*Physical - Task Factors*

Prematurity

- Under 4.5 lbs. (2000 grams)
- Associated with...

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### *Physical - Task Factors*

- Low-birth Weight  
(1500-2500gms. 3.35-5.56lbs. = -2SD < X for gestational age)
- Young-for-Date

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### Factors in the Environment

- *Genetics & obesity* (70% chance of being obese adult if not slimmed down by age 14)
- *Ethnicity and obesity* (Blacks, Hispanics, Whites)

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### *Physical - Task Factors*

- Eating Disorders
- Fitness Levels (physical & mechanical factors)

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## Overweight - Obesity

- *Overweight* (BMI >25 = 20% of USA children & 55% adults)
- *Obesity* (BMI >30 = 11.6% of USA children & 55% adults, 300,000 deaths each year, second leading cause of unnecessary death)

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## Eating Disorders

- *Binge eating without purging* ("triggers" = depression & negative emotions)
- *Bulimia* (binge-purge process)
- *Anorexia* (self-starving process)
- Bulimia & anorexia (90% female, 3-4% of population)

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## *Physical - Task Factors*

- Health-Related fitness
- Performance-based fitness

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## Physical Factors Within the Task

- Physical Activity
- Physical Fitness
- Health-related components (genetic basis & nutritional status)
- Performance related components (generality of motor ability vs. specificity of motor abilities)

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