

## Chapter 1

# Growth and Development

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1. Factors 0198 0 0 1 297.6 752.64 Tm [( )] TJ 0.9N52.fl 0.9u52.e98 0 N52.c9

## **GROWTH AND DEVELOPMENT**





### **3. Assessment Of Growth**

**Physical Growth in pediatrics can be assessed through:**

**Anthropometry.**

**Dental age.**

**Bone age.**

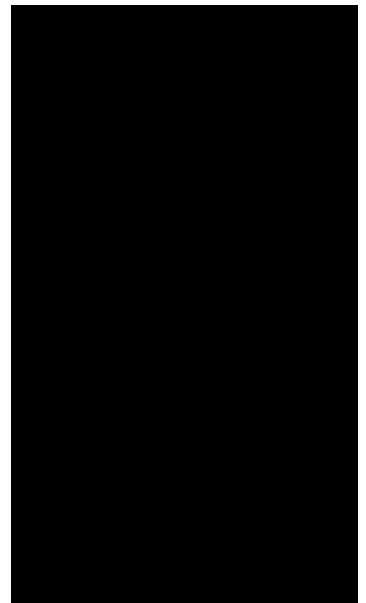
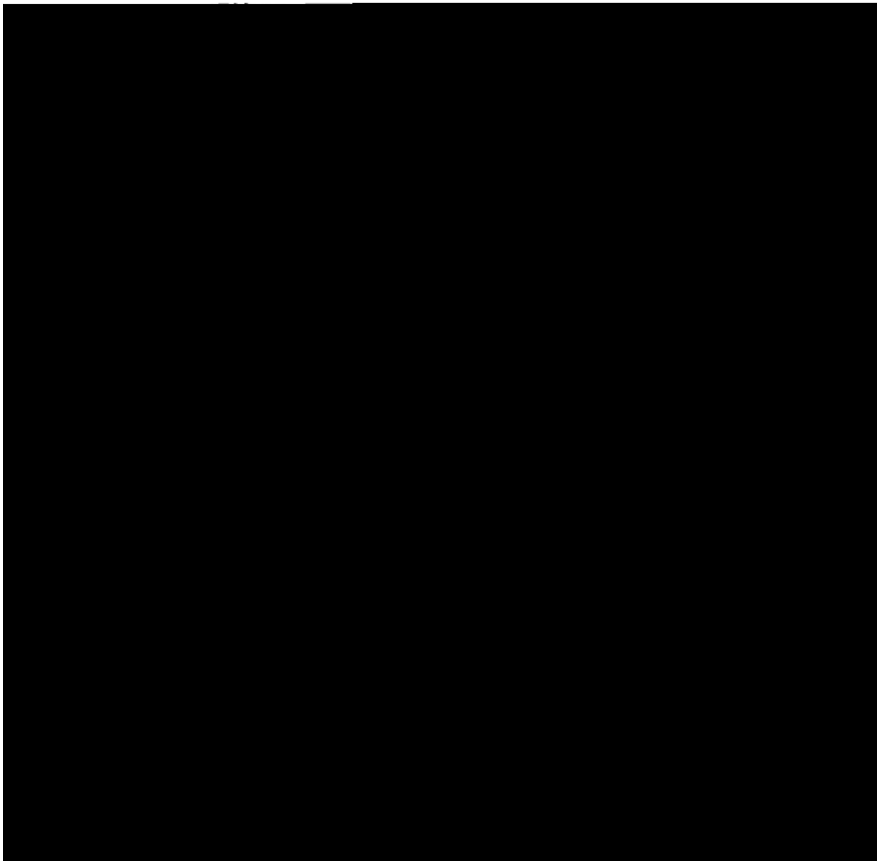
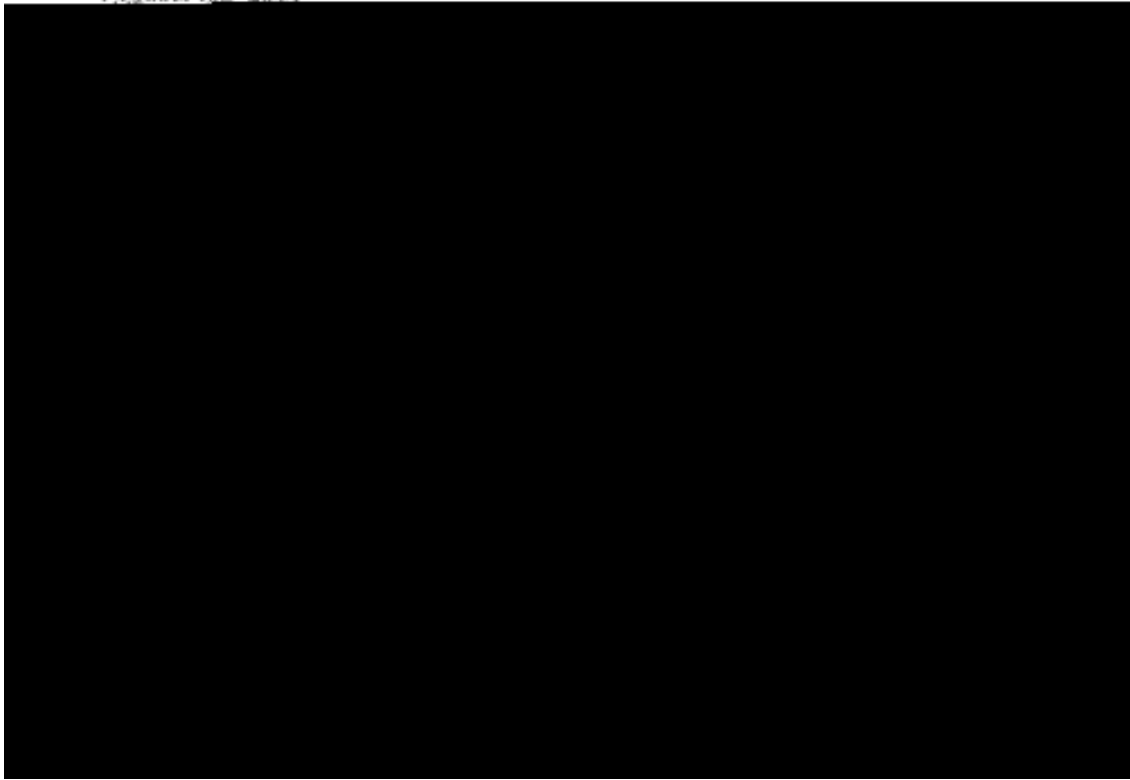
**How can you assess anthropometric measures?**

1. Get an accurate body measurement e.g. weight, height, head circumference, etc.
- 2.





Measurement of bones





### 3. Body Proportions

Upper segment / lower segment ratio (U / L ratio) or crown to symphysis / symphysis to heel, reflect 708F9 12 (a)-4(t)-2uoration f l17(i)-18neer rowh.







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## **Most important ossification centers**

1- Ossification centers usually present *at birth* in full term infants:

Remember this sentence:

## **Full Term Infant Has These Centers**



## 4. Assessment of development.

Development is a continuous process from conception to maturity.

The sequence of development is similar in all children, but its rate varies from child to child.

The direction of development is cephalo-caudal, i.e. the infant controls his head before he can sit, and crawls before he can walk.

The developmental process reflects the maturation of the brain and nervous system.

The newborn cannot do any voluntary activities; all his behavior is reflex in nature.

As maturation proceeds, this reflex activity is replaced by specific individual responses.

### Development is assessed in 4 major fields (see table)

1. **Gross motor:** e.g. head control, sitting, standing, etc..
2. **Fine motor:** e.g. coordination of hands and eyes, using fingers, etc..
3. **Social:** i.e. social reaction of child with his surroundings and relatives.





**Fine Motor**

**Gross Motor**

**Language**

**Milestones after the first year**