OSTEOLOGICAL EVALUATION

Prepared by
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Product No. SCM-186-D

Human Fetal Disarticulated Skeleton (Full Term)

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## Fetal Skeleton

**Product Number:** SCM-186  
**Specimen Evaluated:** Bone Clones® replica  
**Skeletal Inventory:** Articulated skeleton (complete)

### GENERAL OBSERVATIONS:

In general, the molding process has preserved significant details necessary for evaluation. The remains are totally skeletonized.

### OSTEOLOGICAL OBSERVATIONS:

General shape and configuration of the individual bones is within normal limits.

<table>
<thead>
<tr>
<th>Measurements (in cm)</th>
<th>Left</th>
<th>(L) Calc CHL</th>
<th>Right</th>
<th>(R) Calc CHL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clavicle (length)</td>
<td>4.472</td>
<td>52.176</td>
<td>4.436</td>
<td>51.746</td>
</tr>
<tr>
<td>Scapula (length)</td>
<td>3.567</td>
<td>52.599</td>
<td>4.0</td>
<td>52.714</td>
</tr>
<tr>
<td>Scapula (width)</td>
<td>3.096</td>
<td>54.539</td>
<td>3.050</td>
<td>53.773</td>
</tr>
<tr>
<td>Ilium (length)</td>
<td>3.548</td>
<td>54.574</td>
<td>3.545</td>
<td>54.531</td>
</tr>
<tr>
<td>Ilium (width)</td>
<td>3.193</td>
<td>54.349</td>
<td>3.156</td>
<td>53.791</td>
</tr>
<tr>
<td>Ischium (length)</td>
<td>1.858</td>
<td>52.599</td>
<td>1.881</td>
<td>53.079</td>
</tr>
<tr>
<td>Ischium (width)</td>
<td>1.184</td>
<td>50.975</td>
<td>1.153</td>
<td>49.932</td>
</tr>
</tbody>
</table>
### SUMMARY:

1. **Age**

   Term fetus / infant

   The average crown-heel length for all measurements is 52.5 centimeters.

   The average crown-heel length for long bones is 53.0 centimeters.

   *Both of these measurements most accurately correlate with an estimated gestational age of 10 lunar months / 42 gestational weeks (term birth).*
EDUCATIONAL RESOURCES:

1. Both articulated and disarticulated versions of this skeleton are fantastic illustrations of the osteologic anatomy of the full-term or near full-term fetus/infant.

2. Many people are uncomfortable with human fetal osteology because of the apparent complexity of the anatomy. This can be overcome with frequent exposure to a teaching specimen such as this, combined with thoughtful reading of Developmental Juvenile Osteology by Scheuer and Black, as well as Osteology of Infants and Children by Baker, Dupras and Tocheri.

3. Inexperienced osteologists may confuse elements of the developing human skeleton with those of small animals; it may be appropriate and/or advantageous to make such comparative specimens available for analysis during laboratory sessions, or to make direct comparisons during didactic teaching sessions.

4. It can be most beneficial to the student to have access to radiographs of fetus’ and infants at various stages of development.


6. It is not currently possible to reliably differentiate amongst the major racial groups within subadults.[1]

7. It is not currently possible to reliably differentiate male and female infant and young child skeletal remains.[1]

REFERENCES:


DISCLAIMERS:

Evaluation of osteologic material is best done with original specimens. My evaluation was based solely upon studies of a Bone Clones® replica. Certain artifacts are intrinsic to the casting process. Very precise measurements in exacting planes are required to most accurately determine age. With casting, there is a tendency to over-estimation of bone size (length, width), and thus, in the case of fetal bone evaluation, of over-estimating age.

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