

## Comparison of Weights of Twin Fetuses and of their Incisors

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Weights of developing incisors in 10 pairs of twin fetuses have previously been related to ages in order to compare dental growth status (Stack, 1963). Ages ( $T_0$ ) at which weights ( $W$ ) of mineralised portions of teeth of the temporary dentition become significant have been computed (Stack, 1968), using a Fortran program giving maximum likelihood estimates of the required parameters, based on the statistical model of Angleton and Pettus (1966).

Availability of the additional parameter  $T_0$  allows a reexamination of the previous data, now fortified by observations on incisors from five further pairs of twin fetuses. Estimates of ages were made from the relationship  $(T - T_0) = k \cdot W^{1/2}$ , where values for upper and lower central incisors were 2.0 and 2.8 for  $k$ , 19.5 and 18.5 for  $T_0$ , respectively. Less reliable estimates were obtained from the lateral incisors. These values were computed from observations on 40 dentitions from normal singleton fetuses. Ages were also estimated from tabulated body weights (Documenta Geigy).

The results of the age estimates from the data were compared. For 10 pairs, the mean difference in age estimates from incisor weights was less than  $1/2$  week, whereas from body weights it was less than 1 week. In the remaining five pairs both types of age estimate for the more retarded twin were low by  $1 1/2$  weeks. Estimates of age from teeth were identical among two pairs of MZ twins, whereas they differed by 1 week when based upon body weights. The most extreme case was shown by twins for which age estimates from teeth differed by 2 weeks, body weights being in the ratio  $1 1/2 : 1$ .

### References

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