

Age estimation: Standardization

Age estimation in dead bodies, human remains and living individuals may elucidate issues with significant legal and social ramifications for individuals as well as for the community. In such cases methods for estimating age should fulfill the following precise demands: they must have been presented to the scientific community, as a rule by publication in peer-reviewed journals, clear information concerning accuracy of age estimation by the method should be available, the methods need to be sufficiently accurate and in cases of age estimation in living individuals principles of medical ethics and legal regulations have to be considered. In childhood and adolescence morphological methods based on the radiological examination of dental and skeletal development are to be recommended. In adulthood, the accuracy of most morphological methods is much reduced. Here a biochemical method based on aspartic acid racemization in dentine provides the most accurate estimates of age, followed by special morphological dental such as BR method and skeletal methods. The choice of method has to take account of the individual circumstances of each case. Most methods require either the consultation of specialized and trained scientists or an adequate calibration by the "user". Very few attempts have been made to find common standardization, calibration and evaluation procedures or to develop means of quality assurance for methods of age estimation. Efforts in these directions are necessary to guarantee quality standards and adequate answers to the important legal and social issue of age estimation in forensic odontology.

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