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Dutch population specific sex estimation formulae using the proximal femur

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Abstract

Sex estimation techniques are frequently applied in forensic anthropological analyses of unidentified human skeletal remains. While morphological sex estimation methods are able to endure population differences, the classification accuracy of metric sex estimation methods are population-specific. No metric sex estimation method currently exists for the Dutch population. The purpose of this study is to create Dutch population specific sex estimation formulae by means of osteometric analyses of the proximal femur. Since the Netherlands lacks a representative contemporary skeletal reference population, 2D plane reconstructions, derived from clinical computed tomography (CT) data, were used as an alternative source for a representative reference sample.

The first part of this study assesses the intra- and inter-observer error, or reliability, of twelve measurements of the proximal femur. The technical error of measurement (TEM) and relative TEM (%TEM) were calculated using 26 dry adult femora. In addition, the

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