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Development of the frontal sinus in relation to somatic and skeletal maturity. A cephalometric roentgenographic study at puberty

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ABSTRACT

The development of the frontal sinus in relation to somatic and skeletal maturity was analysed in 26 male subjects aged 9-22 years by means of longitudinal data obtained from lateral head films, handwrist radiographs and body height growth curves. These were grouped together and analysed in a cross-sectional manner. The results revealed that the final size of the frontal sinus varied considerably. Analogous to body height growth at puberty, the enlargement of the frontal sinus exhibited a similar pattern with a well-defined peak, which on average occurred 1.4 years after the body height peak. In comparison with skeletal maturity, 65 per cent of the subjects reached the sinus peak during the hand radiographic stages MP3-G or MP3-H, while the body height peak coincided with an earlier maturity stage (MP3-FG).

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