

3. Medical examinations

When a multi-disciplinary age assessment *(see Section 2)* proves to be insufficient to resolve doubts about an applicant's minority, Article 25(2) of the APR provides that medical examinations may be used as a measure of last resort. Article 25(3) further requires that medical age assessment methods be the least invasive possible, carried out with full respect for the individual's dignity by qualified medical professionals and subject to the applicant's informed consent.

Medical methods include radiation-free techniques, such as dental observations, physical development assessments or magnetic resonance imaging (MRI) of the hand, wrist or knee. Assessments involving ionising radiation include radiographies of the hand, wrist or clavicle, dental X-rays, and computed tomography (see the EASO 2018 Practical Guide on Age Assessment, pp. 52-59 for an overview of different age assessment methods). The EUAA 2025 Practical Guide on Age Assessment (pp. 57-59) emphasises the importance of using the least-intrusive methods, recalling that assessments involving nudity and sexual maturity examinations are highly intrusive and should be avoided as they conflict with the rights to dignity, integrity and privacy. It further notes that X-ray examinations are physically intrusive due to their use of ionising radiation, which may be harmful. This concern is reflected in the Euratom Basic Safety Standards Directive (Directive 2013/59/Euratom) which, like all directives, must be transposed into national law, thus ensuring that the use of ionising radiation is subject to an appropriate legal and regulatory framework.27

Article 22 of the Euratom Directive requires that all practices involving the deliberate exposure of individuals to ionising radiation for non-medical imaging purposes, such as radiological age assessments, be justified in advance, taking into account the specific aims of the procedure and the characteristics of the individual to be examined; that protocols and criteria for implementation be established by competent authorities and medical bodies; and that such procedures generally be subject to the informed consent of the person, which is also required under Article 25(4) and (5) of the APR.

Despite their use, medical age assessments remain controversial, as there is no broad, international consensus among medical professionals about their accuracy. Soft law instruments 28 often emphasise that existing scientific techniques can only provide estimates of biological age rather than precise determinations of chronological age and always involve a margin of error. Pursuant to Article 25(2) of the APR, uncertainty may be expressed as an age range, which must be interpreted in favour of the child. Accordingly, Article 25(3) of the APR reflects a longstanding position in legal doctrine that medical evaluations should never serve as the sole criterion to establish a person's age, requiring instead that medical examinations be considered

together with a multidisciplinary assessment, “thereby allowing for the most reliable result possible”.

The following subsections review international and domestic case law concerning medical age assessment methods, from physical examinations to dental X-rays and medical techniques for assessing bone age, like the Greulich and Pyle Atlas (G&P) and the Tanner-Whitehouse 3 scoring method (TW3), as well as related aspects such as the jurisprudential treatment of the margin of error. The examined jurisprudence holds that:

- Medical methods must be used only as a measure of last resort and are subject to the applicant’s informed consent, a point clearly articulated by the ECtHR in *F.B. v Belgium* (6 March 2025, paras 89-94; also see the cascade approach and Section 5.2).
- Physical examinations are generally considered unreliable as a standalone method. In particular, examinations assessing sexual maturity must be avoided.
- Because imaging-based methods lack precision, a combination of different methods is recommended, and their results must state a margin of error and be evaluated in conjunction with other evidence.

- 27

  Council of the European Union. Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom.

- 28

  UN (16 November 2017). Joint General Comment No 4 (2017) of the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families and No 23 (2017) of the Committee on the Rights of the Child on State obligations regarding the human rights of children in the context of international migration in countries of origin, transit, destination and return, CMW/C/GC/4-CRC/C/GC/23, para 4; UNICEF (January 2013). Age Assessment: A Technical Note, Standards 6 and 7, p. 15.

© European Union Agency for Asylum 2026 | Email: info@euaa.europa.eu