

Ethical considerations and advisory regarding plastination of human tissues

Background: The process of plastination includes replacement of the water content of human tissues with silicone, and it is an established method to preserve human tissues in a durable manner. Plastinated human tissues represent excellent teaching resources for anatomy education. They are usually prepared either in specialised academic anatomical facilities, or by commercial for-profit entities. Ethical considerations around plastinated human tissues can be identified in various domains of ethical relevance. Considering these ethical domains is useful as several aspects of commercial plastination operations challenge ethical standards held by the anatomy profession.

Domains of Ethical Relevance:

- Transparency of operations, including sourcing, consent processes, and cross-border transfers.
- Provenance of human bodies/tissues to ensure appropriate source and consent:
 - Consented body donors
 - Nature of consent, including public outreach, commercialisation, the form of any display, transfer across borders, and long-term storage or disposition.
 - Use of unclaimed bodies or body parts, including historical legacy collections.
- Traceability of human bodies/tissues regarding identity, origin, time and place.
- Purpose of use:
 - Academic institutions produce plastinates to have durable human tissues available for anatomy education, including research and outreach to the public.
 - Commercial for-profit entities can be the source of plastinates for public and highly popular exhibits of posed plastinated bodies, which generate ethical questions around what constitutes ‘educational value’.
 - Commercial for-profit entities engage in international trade with plastinated human tissues. Donor consent for this should be transparent.
- Respect for the dignity of the human body:
 - Academic institutions with Anatomical Gift Programs are based on the respect for the dignity of the human body.
 - Commercial for-profit entities are based on economic considerations and profiting from the trade with human tissues, whether in the sale of exhibit tickets or the selling of plastinates. This commodifies the human body.
- Societal, cultural, and familial sensitivities in display or long-term use of plastinates in public outreach should be considered to ensure use is ethically appropriate.

Conclusion: Plastinated human tissues are valuable in anatomy education, however their use necessitates ethical reflection around several issues. Such considerations will facilitate the aligning of plastination practices with core body donation practices, including donor intention and dignity.

Further reading: Hildebrandt S, Champney T, Cornwall J. The public face of anatomy? History-informed ethical analysis of human plastination and its relevance for today. *Anatomical Sciences Education*. 2025;0;1-13.
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