*Clinical Anatomy*

WILEY

CLINICAL ANATOMY

VIEWPOINT OPEN ACCESS

# Ethical Use of Cadaveric Images in Anatomical Textbooks, Atlases, and Journals: A Consensus Response From Authors and Editors

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**Received:** 10 October 2024 | **Revised:** 9 December 2024 | **Accepted:** 15 December 2024

**Keywords:** anatomy | cadaver | commercial | consent | dissection | donors | medical education | medical ethics | publishing

## ABSTRACT

Nowadays, consent to use donor bodies for medical education and research is obtained from the body donors and their families before the donation. Recently, the International Federation of Associations of Anatomists (IFAA) published guidelines that could restrict the appearance of cadaveric images in commercial anatomical resources such as textbooks and other educational products. These guidelines state that the donor must expressly consent to using such images for this purpose. Cadaveric photos and drawings made from dissections of cadavers have been used in anatomy textbooks and atlases for hundreds of years. They are invaluable for anatomy students and clinical/surgical practitioners. The IFAA guidelines should not restrict the use of those older books; to do so would infringe the rights of those seeking knowledge from these resources. As the images in such textbooks and atlases are anonymized and are used for teaching and research, and the donors and their families are informed about this before the donation, we believe no additional consent is needed. It is impossible to separate educational from "commercial" usage entirely in any situation, e.g., publications from publishers and the use of cadavers in medical schools. Therefore, our best efforts to avoid unethical use of cadaveric images by following traditional consent processes are still needed so that more people will reap the benefits from them. As senior textbook/atlas authors/editors from over 10 countries, we believe that using cadaveric images in anatomy textbooks is appropriate, and no additional consent should be necessary. Such usage falls within the good faith of professionals using these invaluable gifts.

## 1 | Introduction

Many humans are interested in knowing about their bodies and their functions, and most would agree that humankind has an inalienable right to access this knowledge through images obtained from donors who left their bodies in good faith for use in education and research. Although some countries have laws that restrict the availability of images from cadavers to laypersons because of their perspective on death, all people should have equal rights to access anatomy education and educational materials, be it in the form of social media, videos, textbooks, or atlases (Chytas 2019; Rai et al. 2019; Wingfield 2018). Thus, anatomy education via photographs or drawings made from cadaveric dissections should not be limited to medical, dental, or allied health students; it should be available to anyone.

Among the multiple methods used in anatomy education, many still believe that the best way to learn human anatomy is by

For affiliations, refer to page 3.

[Correction added on 10 October 2025, after first online publication: The copyright line was changed.]

dissecting a human cadaver, though this topic has been debated for many years (Cullinane, Franklin, and Barry 2023; McMenamin et al. 2018; Iwanaga, Loukas, et al. 2021). Many still consider that cadaveric specimens provide the best way to teach human anatomy and surgical techniques (Iwanaga, Kikuta, and Tubbs 2019). In addition, a part of ethics and professionalism in medicine can be taught using cadaver donations, and access to cadaveric specimens is generally closed to the public. This issue has been partially addressed by cadaveric images in textbooks and atlases, which should not be restricted. Easy access to cadaveric photos is essential for those who want the opportunity to learn human anatomy, whether they are students, professionals, or the lay public. Access to the external anatomy of humans is largely unrestricted, so why should our internal anatomy be hidden or access to it restricted?

In 2023, the Federative International Committee for Ethics and Medical Humanities (FICEM) within the International Federation of Associations of Anatomists (IFAA) developed, at the request of their president, guidelines surrounding the acquisition and use of images from human tissues (Cornwall et al. 2023). The guidelines include many statements that seem debatable. Therefore, this article explores the issues raised by the FICEM regarding the "restriction of human tissue images in textbooks" and provides guidance based on the viewpoints of several established anatomical textbook and atlas authors worldwide.

### 1.1 | Restriction on the Use of Human Tissue Images in the 2023 IFAA Guidelines

As mentioned earlier, the IFAA recently published guidelines that would restrict the appearance of cadaveric images in commercial anatomical resources such as textbooks and other educational products. The guidelines state that the donor must consent to using such images for this purpose. As a matter of principle, policies and guidelines should be agreed upon by diverse people with relevant interests (Iwanaga, Singh, et al. 2021; Iwanaga et al. 2022). However, to our knowledge, authors/editors of textbooks/atlases in the anatomical sciences were not consulted or included in the discussion or production of the guidelines mentioned above, and no member of the FICEM appears to have authored/edited anatomical texts/atlases that use cadaveric images. Moreover, guidelines should describe the nature and strength of the consensus or agreement among the group proposing them (Field and Lohr 1990). Therefore, the perspective of the authors and editors of anatomical publications must be included in any discussion restricting the use of cadaveric images or drawings of cadaveric dissections. Unfortunately, there was no direct (authors being members of the group) or indirect (surveys, questionnaires) involvement of any authors in this process.

The following narrative was contributed to by over 30 senior anatomical textbook/atlas editors/authors from over 10 countries.

### 1.2 | Anatomy Textbooks and Atlases That Could Be Restricted Under the IFAA Guidelines

Cadaveric images and drawings made from dissections of cadavers have been used in anatomy textbooks and atlases for hundreds of years. Many of those books are still being in circulation and others have updated these in multiple editions. If the restriction detailed in the IFAA guidelines were imposed, those old anatomy textbooks and atlases could only be updated if their authors were given consent by the donors/families. Such consent is not possible for older books. Therefore, the recently published IFAA guidelines could infringe on the rights of learners, teachers, practitioners, and researchers by eliminating important anatomical resources. Such resources include

- Anatomy textbooks/atlases with images from historical collections
- Embryology textbooks/atlases with images from historical collections
- Neuroanatomy textbooks/atlases with images from historical collections
- Osteology textbooks/atlases that use skull/skeleton images
- Forensic anatomy textbooks/atlases

Although the IFAA guidelines did not mention this in detail, the restriction would also affect:

- Medical imaging (e.g., ultrasound, MRI, CT) textbooks/atlases that use cadaveric tissues
- Surgical procedure textbooks/atlases that use cadaveric tissues
- Commercially available products using photogrammetry of donated human cadavers (Petriceks et al. 2018).

### 1.3 | Influence on Future Anatomical Research

Based on these guidelines, the IFAA could insist in the future that authors of anatomical research studies obtain specific permission to publish cadaveric images since such studies are commercial products because publishers, who are for-profit companies, include them in the scientific literature.

### 1.4 | Current Right Direction

Usually, consent to use donor bodies for medical education and research is obtained from the body donors and their families before the donation. As the cadaveric images and their renderings in anatomy textbooks and atlases are anonymized, and the donors are informed before the donation that their gifts will be used for education and research, we believe no additional consent is needed. If the IFAA guidelines had been followed, the authors could have assumed that the "education and research" described under general consent does not include commercial products such as textbooks/atlases. However, "education and research" does include commercial products. If it did not, what about "education in medical schools" and "scientific articles owned by publishers," which could also be considered commercial products? It is impossible to separate "educational" and "commercial" usage, e.g., "cadaveric usage in medical schools" and "publications from publishers."

Legal precedents in privacy law generally indicate that the right to privacy does not extend beyond death. Consequently,

the display of cadaveric images, provided they do not contain identifying information, does not violate any legal rights of the deceased or their families. When these images are anonymized, no privacy breach occurs, and public access plays a crucial role in democratizing medical education.

Social media and open platforms offer a powerful tool for education, enabling students, professionals, and the general public to gain knowledge of human anatomy. Placing restrictions on sharing such images could obstruct scientific collaboration, educational outreach, and public health initiatives, all of which often rely on openly accessible data. Open access to non-identifiable anatomical images fosters a wider exchange of information, benefiting society without causing harm to the deceased.

Both historical and legal precedents support the use of medical imagery as long as it serves legitimate educational, research, or scientific purposes and is not exploitative. In addition, legally restricting the distribution of cadaveric images on platforms such as social media may conflict with rights to freedom of expression and the sharing of scientific knowledge. In the absence of harm or violation of identifiable privacy rights, such images should be freely available for educational use.

To the best of our knowledge, no jurisdiction globally has enacted or even considered legislation that specifically restricts the inclusion of cadaveric images in commercial anatomical resources like textbooks, educational products, or instructional materials. While the IFAA and its subcommittees are within their rights to discuss, develop, and disseminate ideas regarding the use of cadaveric materials, their actions fall within academic discourse and professional guidance, not legal mandates.

It is important to note that the IFAA and its subcommittees lack the legislative or ethical authority to turn their concepts into enforceable regulations. Though potentially influential in shaping best practices in anatomy, these guidelines do not carry legal weight and cannot impose obligations on academic institutions, professional bodies, or sovereign nations. Only recognized legislative and regulatory bodies hold the authority to create binding laws that reflect their respective regions' cultural and societal values.

Furthermore, the IFAA's guidelines may inadvertently restrict access to cadaveric materials for those with a legitimate interest in human anatomy and could misinterpret or confuse the role of cadaveric images in commercial educational materials, such as books and other resources. Ethical guidelines should aim to facilitate using such images in advancing medical knowledge rather than imposing overly restrictive conditions that could hinder educational and research progress.

## 2 | Conclusions

Learning opportunities using the donated human body must equal all other available resources. Consent for their use in education and research is usually obtained from body donors before the donation. As anatomy textbook/atlas authors/editors, it is appropriate to use cadaveric images in anatomical textbooks/atlases, and no additional consent should be necessary. Such usage falls within the good faith of the professionals using these invaluable gifts. Therefore, the guidelines published by the IFAA are overreaching and do not apply to cadaveric images used in anatomy textbooks and atlases. Published images of cadaveric dissections are of high pedagogical value and we should do our best as professionals to avoid unethical uses of images obtained from cadaveric donors by following institutional rules, ensuring that the maximum number of people will reap benefits from them.

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