

| Responsibility of GDPs | Responsibility of forensic odontologists |
|---|---|
| To maintain digital dental records of all the patients | To practice digital analysis of forensic evidence |
| To use digital radiography and photography when required | To provide training to GDPs regarding the basic aspects and needs of dental forensics |
| To keep updated on recent advances in the requirements of forensic odontology | To use digital exercise material for training purposes to improve understandability |

Table 1. The responsibilities of general dental practitioners and forensic odontology experts.

Digital dental forensics: a metamorphosis in dental practice

In recent times, digitization has revolutionized the scope of dentistry. Digital dentistry has also gained a significant role in the field of forensic dental investigation, leading to the development of digital dental forensics. Digital dental forensics deals with the use of computer science for the purpose of forensic investigations using digital dental evidence.¹ Over the past decade, it has significantly contributed to the acquisition, analysis, and reporting of forensic dental evidence. Digital evidence is also acceptable in a court of law. This includes: digital dental charts, forensic dental radiography and photography, computer-assisted bite mark analysis and facial reconstruction, 3D scanners and printing, forensic comparison microscopes, forensic biorobots, vortopsy, etc.¹⁻⁴

Compared with traditional forensic investigation procedures, digital dental forensics offers several advantages. It is reliable and quick, there is improved accuracy, a reduction in human error, it cannot be easily manipulated, and it offers digital transfer of images with intact details and easy communication, particularly for on-site transfer and comparison of dental records in, for example, disaster victim identification.^{1,4,5} Additionally, the use of software investigations has also led to the development of artificial intelligence for forensic investigations.

Additionally, digitization has significantly improved the effectiveness of forensic odontology

training programmes. Studies indicate that the use of digital teaching material in forensic odontology encourages students to actively participate in practical exercises.⁵

Some of the challenges for practising digital forensics, such as the storage of a large amount of data, the need for expertise in digitized methods and cost factors, can be overcome through the use of cloud-based storage systems, encouraging professionals to undertake training programmes in digital forensics, and the wider application of digital technology in other disciplines.^{1,2} The responsibilities of both general dental practitioners and forensic odontology experts are highlighted in Table 1. Realization of their role will improve the efficiency of their capabilities. Hence, members of the dental fraternity must keep themselves abreast of the recent advances in the development of forensic odontology to contribute to the delivery of truth and justice. It is essential to unlock the value of digital technology in forensic investigations as well as in forensic odontology training programmes for a better understanding of the subject. Fellowship and continuing dental education programmes, alongside workshops related to forensic odontology should be encouraged among oral healthcare professionals to provide opportunities to contribute to the needs of forensic investigations. This would strengthen the validity of evidence in forensic cases.

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Mamata Kamat

Fellow in Forensic Odontology, Associate Professor, Department of Oral Pathology and Microbiology, Bharati Vidyapeeth (Deemed to be University) Dental College and Hospital, Sangli, Maharashtra, India

Varsha VK

Associate Professor, Department of Oral Pathology and Microbiology, Raja Rajeshwari Dental College and Hospital, Bengaluru, Karnataka, India

Sharad Kamat

Professor and Head, Department of Conservative Dentistry and Endodontics, Bharati Vidyapeeth (Deemed to be University) Dental College and Hospital, Sangli, Maharashtra, India Methaemoglobinemia and Dental

Corrigendum

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Please note that Professor Shauna Culshaw was erroneously included as an author for this article.