Australian Society of Forensic Odontology Inc.

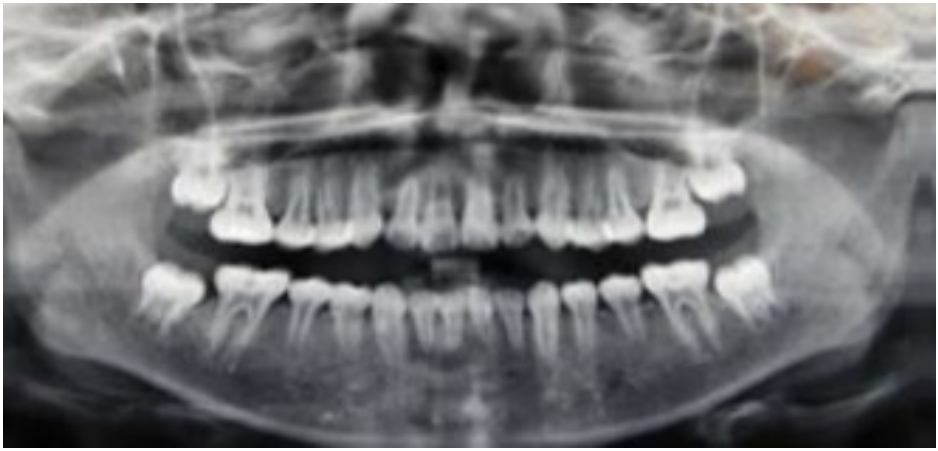
www.ausfo.com.au
Registration No.A0053935C

Forensic odontology *is the branch of dentistry that applies dental science to the law. It involves the recognition, examination, documentation, preservation, interpretation and analysis of dental and oro-facial evidence; and presentation of opinion related to this evidence to the courts of law. The role of the odontologist covers fields as diverse as:*

- *identification of unknown deceased persons by dental comparison*
- *age assessment from dental development*
- *facial comparison and cranio-facial superimposition*
- *identification of dental structures and materials to associate scenes*
- *assessment of facial trauma*
- *assessment of bite-mark evidence*

Forensic Odontology is a registered specialty with the Dental Board of Australia.

The diversity of technical skills and research ability makes this group unique, unusual and dynamic within the dental and forensic science communities of Australia.



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The Australian Society of Forensic Odontology was established in the early 1980's to bring together dental graduates with an interest in developing and promoting forensic dental science as a sub-specialty within dental academic pursuits.

The aims of the Society are to:

- advance the study of forensic odontology and its application to the law;
- advance the science of forensic odontology and promote practice standards;
- promote high quality and timely forensic odontology services to assist the Australian Coronial and Justice systems;
- maintain a roster of forensic odontologists who are available to deploy to mass disasters as required by relevant authorities;
- act as a conduit for forensic odontology deployments in mass disasters

The Society is affiliated with the Australian & New Zealand Forensic Science Society and the Australian Dental Association.

Members of the Society were Foundation Forensic Odontology Members within the Faculty of Oral and Maxillo-Facial Pathology of the Royal College of Pathologists of Australasia.

Service Provision

Domestic Activity

Members of the Society supply an odontology service for each State and Territory in Australia. Practitioners provide expert opinion to police and the legal profession. The majority of cases involve confirmation of the identity of deceased persons reported to the Coroner.

The Society is closely allied with each State and Territory Disaster Victim Identification (DVI) police unit and has been involved in all major Australian and regional multiple death investigations.

The Society liaises with the National and State Missing Person Units to help resolve long-term missing persons cases.

International Activity

Bali – following the terrorist bombing attacks in 2002 which killed 202 people, including 88 Australian citizens, the Society rostered members to assist Australian Federal Police (AFP) in the investigation into the disaster. Over 60% of the identifications of all deceased persons were achieved by dental comparisons.

Thailand – following the December 2004 tsunami which affected many countries in South East Asia, Australian forensic odontologists were deployed, many in Team Leader roles, for the duration of the identification process as part of the AFP identification operation. Again, over 60% of the identifications were solely or partly attributed to dental findings provided by international forensic odontology teams.

Indonesia – following the plane crash in Jogykarta in 2007 which involved the deaths of Australian journalists, aid workers and AFP representatives, the Society provided members to assist in the identification of those killed.

Congo – a member of the Society was deployed to the Congo in 2010 following the plane crash involving mining company Sundance Resources.

Papua New Guinea – A PNG Airlines aircraft crashed during a violent rainstorm in 2011 near Madang, PNG, killing 28 people, many of whom were the families of theology students attending a thanksgiving ceremony. The victims were identified by DNA, but a Society member was part of the DVI team.

Samoa – More than 180 people, including five Australians, lost their lives in a tsunami which impacted the coasts of Samoa, American Samoa and Tonga in Sept 2009 Society members were deployed with AFP in the first response team.

MH17 - Odontologists from the Society were deployed to the Netherlands to assist in the identification of victims of Malaysian Airlines MH17 that crashed in July 2014, presumed to have been shot down. All 283 passengers and 15 crew on board were killed.

Society members are also involved in the recovery of remains of military personnel missing in action in theatres of conflict in Papua New Guinea and Vietnam and have investigated the mystery surrounding the last known survivor from HMS Sydney.

Education and Training

The Society plays an important role in providing education and training programs, Nationally and Internationally, to police, legal, medical and dental faculties at all levels.

The Society is also involved in pursuing accreditation of Forensic Odontology courses by the Australian Dental Council to provide a pathway for those with further training in Forensic Odontology to achieve Specialist status with the Dental Board of Australia.

Presentations

Society members contribute regular oral and poster presentations at National and International conferences. The Society also organizes an International Symposium to showcase issues in forensic odontology.

Research

Research Areas

The Society supports and encourages research by its members. Current research areas include:

- Use of CT imaging techniques in forensic odontology investigations
- Age assessment using radiographic and CT imaging
- DNA recovery from teeth
- Maximising postmortem data from severe incineration cases
- Differentiating dog dentitions
- Development of training tools for odontologists
- Validation studies in Odontology
- Development of forensic information packages to dental professionals

Recent publications from Society members include:

Bassed R, Ranson D 2012, 'Age determination of asylum seekers and alleged people smugglers', *Journal of Law and Medicine* 20(2):261-5.

Berketa JW, James H, Lake AW 2012, 'Forensic odontology involvement in disaster victim identification', *Forensic Science, Medicine, and Pathology* 8(2):148-56.

Berketa JW 2013, 'Maximizing post-mortem oral-facial data to assist identification following severe incineration' *Forensic Science, Medicine, and Pathology* 10(2):208-16.

Blenkin M, Taylor J 2012, 'Age estimation charts for a modern Australian population', *Forensic Science International* 221(1-3):106-112.

Forrest AS 2012, 'Collection and Recording of Radiological Information for Forensic Purposes', *Australian Dental Journal* 57(Suppl 1):1–9.

Higgins D, Austin JJ 2013, 'Teeth as a source of DNA for forensic identification of human remains: A Review', *Science and Justice* 53(4):433-441.

Higgins D, Kaidonis J, Townsend G, Hughes T, Austin J 2013, 'Targeted sampling of cementum for recovery of nuclear DNA from human teeth and the impact of common decontamination measures', *Investigative Genetics* 4(1):18.

Lake AW, Berketa JW, James H 2012, 'Disaster victim identification: quality management from an odontology perspective', *Forensic Science, Medicine, and Pathology* 8(2):157-163.

Page M, Taylor J, Blenkin M 2012, 'Context effects and observer bias: Implications for forensic odontology', *Journal of Forensic Sciences* 57(1):108-112.

Page M, Taylor J, Blenkin M 2011, 'Uniqueness in the forensic identification sciences: fact or fiction?' *Forensic Science International* 206(1-3):12-8.

Rajshekar, M., M. Tennant and Thejaswini 2014, 'Salivary Biomarkers and their Applicability in Forensic Identification', *Sri Lanka Journal of Forensic Medicine, Science & Law* 4 (1):10-15.

Sathapana S, Forrest A, Monsour P, Naser-ud-Din S 2013, 'Age-related changes in maxillary and mandibular cortical bone thickness in relation to temporary anchorage device placement', *Australian Dental Journal* 58(1):67-74.

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