

## WHAT IS DENTAL CHARTING?

A dental chart is an important part of dental records that shows the current conditions of a patient's teeth such as restorative work, missing teeth, and caries. Teeth can withstand trauma, chemicals and burns up to 540-650 degrees celsius! It is important for a dental professional to keep an accurate and updated chart because it can be the fastest way to identify a victim. When identifying the deceased, there is a postmortem team that does dental autopsy examinations such as inputting dental charting into a system that compares it to the antemortem dental chart. Any mistake in an antemortem chart could make it unusable.



## Forensic Dentistry during 9/11

According to Dr. David Clemens, who was one of the many dentists who helped to identify the victims of 9/11, they were able to identify nearly 700 victims using dental records just 2 months after the attack.

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# DENTAL FORENSICS



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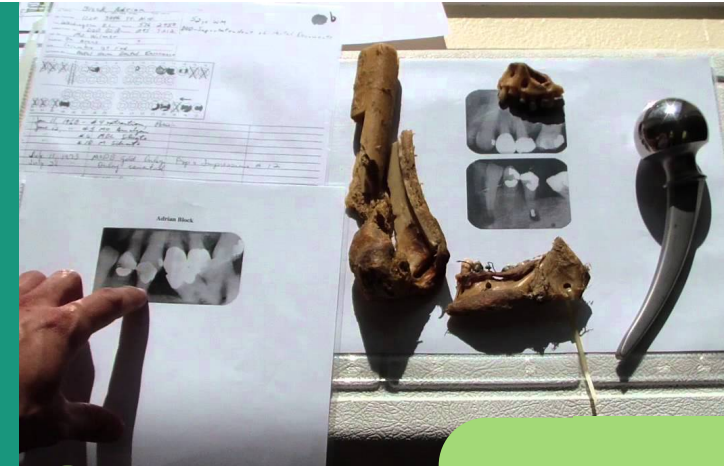
Forensic dentistry also known as forensic odontology is unique science use in an investigation of legal and criminal matters. It involves proper handling, examination and evaluation of dental evidence, which is then presented in the interest of justice.

## How is it related to dental hygiene?

It is the sole responsibility of the dentist and dental hygienist to chart and preserve an accurate dental records of their patients for the purpose of identification in the case of any disaster.

## Importance of Dental Records

The information that may be derived from teeth is the age, name, sex, number of teeth present, filled teeth, dentures and other restorations, morphological variations of teeth and mucosa with photographs and radiographs etc. All these information aids the identification of the person the teeth belongs to. This is carried out using **dental records** or ante-mortem (prior to death) photographs.



1

### Abuse

Documentation from statistics reveal that physical abuse occurs in the head and neck and mouth area at a rate of 75%.

2

### Age assessment

Age assessment is based on eruption and emergence, crown and root formation and post development changes. Tooth mineralization and growth layers of cementum also plays a role in determining the estimate age of an individual.

3

### Identification

Teeth have remarkable survivability. They can withstand some chemical, trauma and burning assaults. Unprotected natural teeth will turn to ash at 540 to 650 degrees.

4

### Bite marks

A bitemark with good forensic value will have distinctive traits. Incisors produce rectangular injuries, canines produce triangular ones and premolars display double triangles.

### Role of dental hygienist:

- The dental professional should be able to identify signs of abuse in patients such as: bruises, broken bones, burns, pattern injuries at various stages of healing.
- When recognizing these signs in any of their patients they should report it.
- They should make sure to keep accurate and updated dental records of their patients at all times in case they are needed for identification.
- Dental hygienists can volunteer in Mass Fatality Incidents to assist in identifying victims.