



### F8 A Bitemark Classification That Makes Sense

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After attending this presentation, attendees will learn classifications for logical and simple bitemark categories. Attendees will also learn the difference in each of four distinct types of human bites on human skin. The application of a classification in the practice of forensic odontology should help to standardize and better organize the science.

This presentation will impact the forensic science community by simplifying and categorizing bitemarks. When forensic odontologists can all speak the same language in bitemark analysis it will make this science more understandable. By applying a logical classification to bitemark analysis, errors in interpretation should be greatly reduced. Other disciplines all use classifications for logical separation and for impact in identification of specific procedures or categories.

In the literature, bitemarks are usually not referred to by a classification but are described as good, poor, limited evidentiary value, distorted bitemark, high evidentiary value, diffused, healed, etc. How much more professional would it be to group the bitemarks into a logical, simple, and understandable group. In most areas of science similar items are classified. For example; in dentistry, there are classifications of fillings, i.e., Class I, II, III, IV, and V. All dentists understand what falls into these classifications. They are used for the insurance industry and all speak the same languages. The orthodontist classifies occlusion into Class I, II, and III. All those in the discipline understand what the occlusion will look like in these classifications. So why have the forensic odontologists not used classifications for bitemarks? In the 1980's Dr. Ray Rawson proposed a classification for bitemarks which consisted of a total of six classes. To my knowledge it has never been used. Why? Because it was too specific, complicated, and not user friendly. However, bitemarks can be classified into four simple, clear, and logical classifications. If used by all forensic odontologists everyone would for once be speaking the same language. These classifications would make it clear to other disciplines what is being referring to; specifically for the legal profession, police, and medical examiners.

The most logical classification for human bitemarks on human skin should be based on appearance or lack thereof, of the pattern injury. The following are examples that have proven to be effective in practical application:

**Class I:** This is the diffused bitemark. The one that lacks individual characteristics and has limited class characteristics, sometimes referred to as a bruise, diffused bitemark, a smoking ring or, a faint bitemark.

**Class II:** This pattern injury has some individual tooth characteristics, some class characteristics, sometimes referred to as the "single arch bite" or the partial bitemark. This type of bite can be seen in human bites through clothing or where several teeth are recorded such as teeth marks with a fist blow to the face or where the individual has an object over one arch when the bite is inflicted when only the opposing arch would mark.

**Class III:** In this classification, there are both individual tooth characteristics and class characteristics present. This type of bite is one that is used most often for comparison purposes and has great evidentiary value. This type of bite is usually found on the body part that has the least amount of tissue distortion such as buttocks, shoulder, an upper arm, or the chest. In this classification of bites, the pressure is often held for a long enough period of time and with a deep enough penetration of tissue to record the lingual surfaces of the anterior teeth.

**Class IV-** In this classification, the bite has caused avulsion or laceration of the tissue. Usually there are no class or individual tooth characteristics present. This type of bite is most common where scarring occurs or where there is avulsion of an ear or finger. This bite is used to demonstrate that in a bitemark, one has a permanent injury which will elevate a charge of battery which is a misdemeanor to a third degree felony aggravated battery.

If one avoids complications by adding sub classifications to the classes then this method of classification of bitemarks is one that all forensic odontologists should be able to live with and more importantly use as part of their analysis and report documentation.

**Bitemark, Odontology, Classification**