



## **Guidance on Assessment of a Possible Bite Injury in Children**

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When assessing a possible bite injury in a child, the same considerations in history taking and initial examination must be applied as with any possible non-accidental injury. This guidance covers the additional, specific considerations when the injury may have been caused by a bite.

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### Appearance

- Human bites are always inflicted injuries. They are currently the only physically abusive injury where there is the potential to identify the perpetrator. This may be from dental characteristics or from salivary DNA<sup>18</sup>. Therefore, it is essential that paediatricians and other health professionals recognise a potential bite, make an initial assessment and refer when appropriate.
- A human bite mark is a 2-5cm oval or circular mark (bruises, lacerations or scrapes from dragging of the teeth) made by two concave arcs, with or without associated bruising or petechiae. Individual teeth marks may be visible. Upper teeth marks are larger than lower teeth marks.

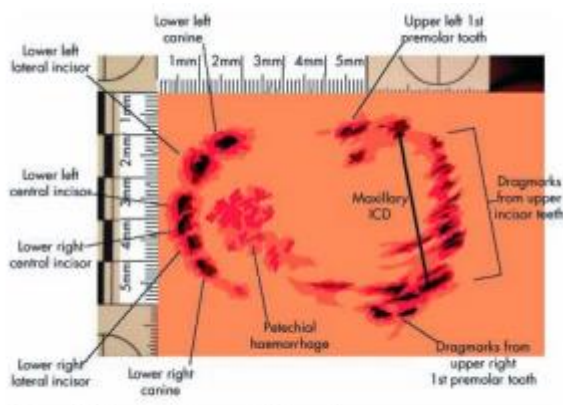


Figure 1. Diagram of human bite mark

- Many human bites are not recognised as such and are dismissed as bruises. Any bruise with the shape of opposing curves should be treated as suspicious
- Domestic dogs have four prominent canine teeth that are considerably longer than the incisor teeth. Therefore, a dog bite consists of opposing pairs of triangular or rounded puncture wounds from the canine teeth. In addition, dog upper and lower dental arches are V-shaped.
- So-called 'love bites' are suction marks caused by the mouth with or without teeth marks and can appear as petechial haemorrhages.
- The differences between adult and child bites are subtle, and early referral to a forensic odontologist is recommended. Traditionally, measurement of the inter-canine distance (ICD) of the bite has been used to distinguish between adult and child bites although this has not been scientifically validated. If the inter-canine distance is 3–4.5cms, the bite is

more likely to be that of an adult (2.5–3.0cm being child or small adult). The imprint of a child's deciduous teeth may be recognised in a bite with ICD of <2.5cm.

### **Explanations**

- It is not uncommon for young children to bite each other but there should always be suspicion if such an incident is not witnessed by a third party.
- Animal bites have different characteristics from human bites (as above) but suspicion is needed if these differences are not clear and the incident has not been witnessed by a third party.
- If in any doubt about the appearance of a bite or the explanation, advice should be sought from the on-call paediatrician, a senior colleague, your line manager or child safeguarding specialists such as the Named Doctor and Nurse.

### **Initial Assessment**

- Document (describe and draw) and measure the mark. Record the explanation given as accurately as possible.
- If possible, take as good a picture as possible with the equipment you have available and in accordance with organisational policy on clinical photography.
- Arrange any immediate medical treatment required but avoid cleaning if possible as DNA swabs may be needed.

### **Referral**

- Bite marks in children need a high level of suspicion and many will result in a referral to the Multiagency Support Hub (MASH).
- The police will be the lead agency and will ensure that DNA swabs and professional photographs are taken and that a forensic odontologist or other suitably trained professional undertakes a full assessment of the injury.

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