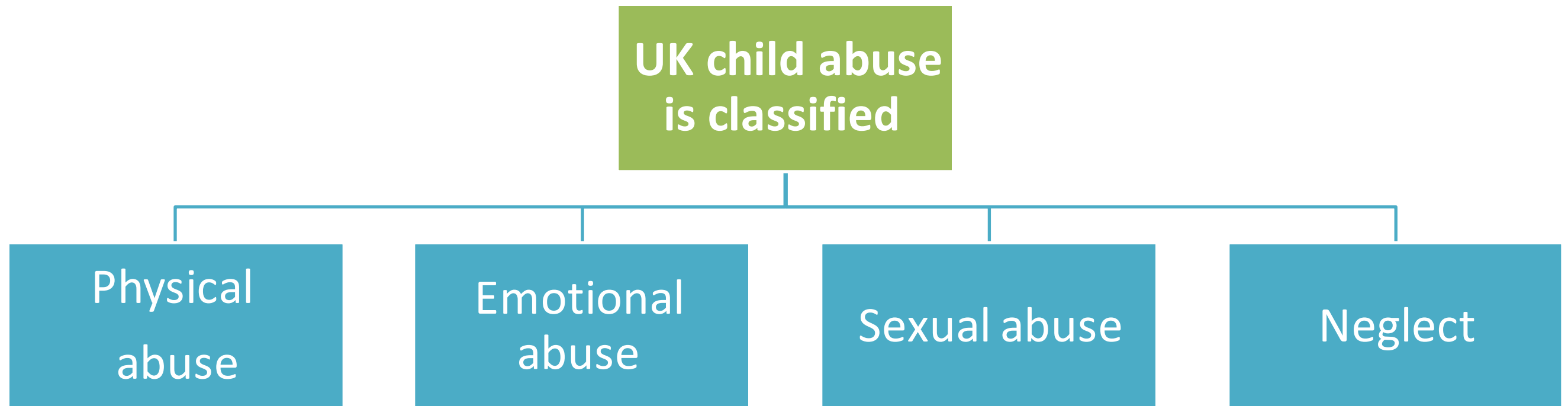


CHAPTER 13: Child assault and protection

Definitions and law

The United Nations Convention on the rights of the Child (UNCRC) defined children as persons under 18 years of age. This age limit may be applied variably in different cultures and jurisdictions may vary in how that age limit is applied.

Child Abuse : Can be defined in a number of ways and many governments have systems in place to ensure that health professionals recognize that they have an overriding duty to report concerns if they believe that the child may be at risk of harm. **Physical abuse** of a child is defined by the World Health Organization as ‘that which results in actual or potential physical harm from an interaction or lack of interaction which is reasonable within the control of a parent or person in a position of responsibility, power or trust.



1-Physical abuse :

- Physical abuse takes many forms the type and site of injury will relate to those factors as well as their age and mobility.
- The prevalence, number and location of bruising relates to motor development.
- Nonabusive bruises tend to be **small, sustained over bony prominences, and found on the front of the body** (Figure 13.1).
- Bruising is common in children, Any part of the body is vulnerable.
- Bruises are away from bony prominences; the commonest site is **head and neck** (particularly face) followed by the **buttocks, trunk, and arms** (Figure 13.2).
- Bruises are large, commonly multiple and occur in clusters, However bruising, as with other findings in suspected child abuse, must be assessed in the context of **medical, social and developmental history**, the explanation given and the patterns of non-abusive bruising.
- Examples of patterns of injury that should raise the possibility of physical abuse include **multiple facial bruising, bruises to the ears, neck or abdomen, multiple old scars, cigarette burns, bite marks or torn frenulum.**



13.1 Non-abusive bruising.



Figure 13.2 Inflicted injury-finger marks to neck from slap with hand by non-accidental injury (NAI).

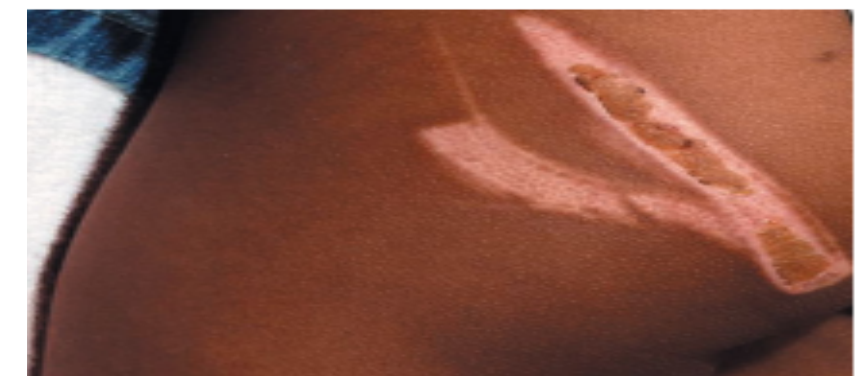


Figure 13.3 Scar caused by application of heated cutlery handle to lower limb.

Cont.Physical abuse :

- Bruises in non-mobile infants, bruises over areas of soft tissues, patterned bruises and multiple similar shape bruises should raise concerns.
- Unintentional scald injuries more commonly result from **spill injuries of other hot liquids; they usually affect the upper body with irregular margins and variable depth of burn .**
- **In infants (under 18 months) physical abuse must be considered in the differential diagnosis when they present with a fracture in the absence of clear history of trauma.**

Box 13.1 Types of injury in physical abuse

- Head injury – of all types; the 'shaken-baby' syndrome is an extremely complex area requiring multi-professional input and assessment to determine the relevance of clinical and radiological findings
- Skin injury – in particular it is important to recognize possible slap marks, punch marks, grip marks, pinching and poking marks; certain injuries (e.g. cigarette burns) are readily identifiable
- Abdominal injury – all intra-abdominal organs can be damaged by direct impact (e.g. punches or stamps)
- Chest injury – squeezing or crushing can result in substantial injury including rib fractures, ruptured great vessels and cardiac bruising
- Skeletal injury – a range of injuries may be seen, from frank fractures, via metaphyseal fracture to subperiosteal new bone formation

- Multiple fractures are more common after physical abuse than after accidental injury.
- The history is a crucial part of the assessment.
- **Examples** of features that may support abuse include **discrepancies in the history, a changing account, different accounts by different care givers and delays in presentation.**
- Specific enquiry should be made regarding pre-existing conditions, which may cause excessive or easy bruising (e.g. **haemophilia**), or known skin disease, which may mimic or be mimicked by physical abuse.

Cont: Physical abuse :

- Full general examination all scars, healing injuries and new injuries must be noted , If injury is noted, consideration should be given to repeat examination and serial photography to note the evolution of injury or scars.

If physical abuse is suspected :

1- Radiographic skeletal survey, which must subsequently be reviewed by a pediatric radiologist.

2- Bone scintigraphy.

3- Laboratory-based investigations include blood count, urinalysis, liver function, amylase, calcium, phosphorus, vitamin d, screen for metabolic bone disease, and coagulation studies.

2-Sexual abuse

- There are many ways in which a child may disclose abuse; for example, it may be to a **teacher**, a **friend** or a **sibling**.
- The sexual abuse may be chronic and long term or it may be an acute or single episode.
- Disclosure may be delayed for many years in chronic cases, or for a few days in acute episodes, which may result in loss of forensically supportive evidence.
- **Pubertal and pre-pubertal girls are more likely to have significant genital signs if they are examined within 7 days of the last episode of sexual abuse.**
- The assessment may be undertaken by a single doctor if that doctor has the necessary knowledge, skills and experience for the case.
- Two doctors with complementary skills (e.g. a paediatrician and a forensic physician) will be appropriate.
- It is considered essential for a permanent record of the genital or anal findings to be obtained whenever a child is examined for possible sexual abuse.

Box 13.2 Types of injury that may be seen in sexual abuse

Findings that may be noted in females:

- Genital erythema/redness/inflammation
- Oedema
- Genital bruising
- Genital abrasions
- Hymenal transections
- Hymenal clefts and notches
- Labial fusion
- Vaginal discharge in pre-pubertal girls

Anal findings in males and females may include:

- Anal/perianal erythema
- Perianal venous congestion
- Anal/perianal bruising
- Anal fissures, lacerations, scars and tags
- Reflex anal dilatation

Cont. Sexual abuse

- A colposcope or camera may be used, The images must be of adequate quality to demonstrate the clinical findings.
- Examinations for acute or recent child sexual abuse are similar to those for adult sexual assault.
- Genito-anal examination may be particularly stressful for a child and is done at the end of the general assessment and examination.
- Genital examination can be done in the **supine 'frog-leg' position** with *hips flexed and the soles of the feet touching*, and if, for example, a *hymenal abnormality* is seen, the **prone knee–chest position** can additionally be used.
- Examination of a **female** alleging penetrative sexual assault pre-pubertally but disclosing in her thirties after vaginal delivery of children will provide no information.
- Examination of a **pre-pubertal** girl alleging vaginal penetration some months earlier may have value.
- A **male** alleging historic anal penetration with immediate pain and bleeding at the time may have persistent scarring.
- The interpretation of physical signs found after genito-anal assessment is a very difficult and complex area.

- Most complainants of child sexual abuse have no genito-anal abnormalities when examined after alleged sexual abuse.
- It is essential that precise terminology is used in the description of abnormality and injury so that abnormal findings are clearly understood

3-Neglect and emotional abuse

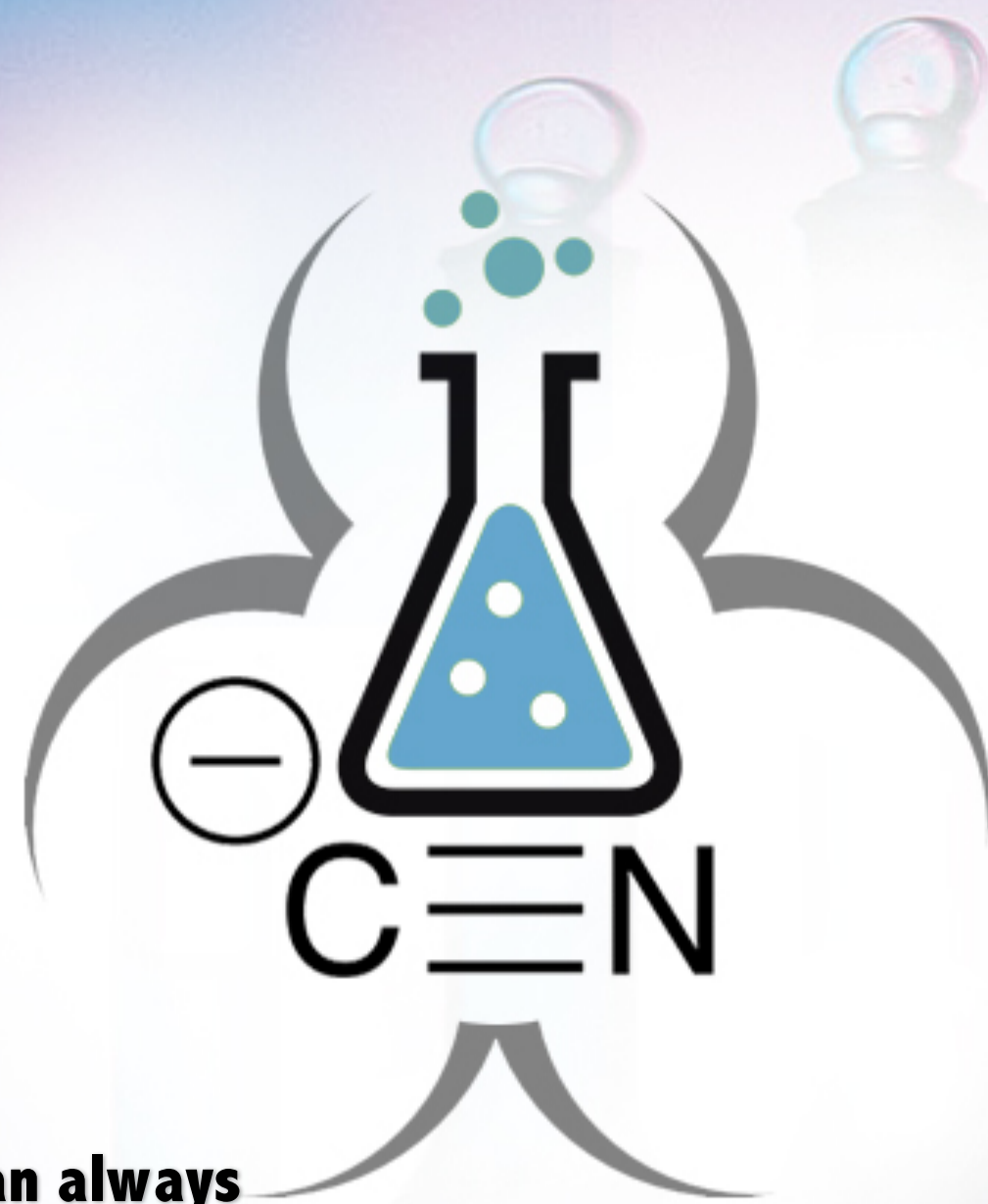
- For example: age-inappropriate social skills (e.g. inability to use knife and fork), bedwetting and soiling, inability to self-dress, smoking, drug and alcohol misuse, sexual precocity and absenting from school.
- Features associated with possible neglect:
 - 1- Unkempt child, ill-fitting or absent.
 - 2- Items of clothes, dirty or uncut nails.
 - 3- Local skin infections/excoriations and low centiles for weight and height, However, some of these features may be seen in normal, non-abused children.
- In **emotional abuse** such as unplanned or unwanted children, children of the 'wrong' gender, children with behavioral issues and children in unstable or Chaotic family setting.

4-Factitious disorder by proxy

- Also known as **Munchausen Syndrome by Proxy** or **fictitious or factitious illness by proxy**, fabricated illness by proxy or induced illness).
- Term used to describe a setting in which a parent or care giver **presents a false history or appearance of illness for their child to healthcare professionals.**
- Examples of how illness can be claimed, fabricated or induced include manipulation of required drug regimens (e.g. in diabetics), suffocation and administration of noxious substances (e.g. salt).

Management of child abuse

- The management of child abuse will depend on the type of abuse other factors such as their health, and where they are living.



**If you have any questions You can always
contact us at : forensic433@gmail.com**

Done By: Muhannad Alshuraidah