



السلام عليكم

ورحمة الله وبركاته

# INFANTICIDE



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**crime elements of infanticide are;**

**1 – victim is newborn**

**2 – victim is born alive**

**3 – positive or negative act of killing the newborn.**

**4- Assailant (mother).**

**Definition: Killing of a newly-born, live born, viable infant (within the first 15 days after birth).**



## Causes of infanticide:

- 1- To get rid of an illegal pregnancy
- 2 – To get rid an unwanted child because of poverty.
- 3 – Revenge of his/her father.

# Forensic medical questions about infanticide

## A) The infant

- 1- what points of identity does the child show?
- 2- What is the degree of maturity of the infant?
- 3- was the infant dead-borne or live borne?
- 4- how long the infant survive after birth?
- 5- what are the possible cause of death?
- 6- what is the time passed since infant's the death?

## B) Suspected mother:

- 1- Signs of recent delivery
- 2- Mental condition.

# **I- Identification of an infant:**

**1- date and place**

**2- description anything connected with it:  
written paper, rapping cloths, or any article  
found with it.**

**3- description of the infant's body in details**

**4- any birth marks or congenital anomalies.**

**5- Blood group.**

**6- DNA**

## **II- viability and maturity:**

 **It is necessary to ascertain the viability.**

 **Viability is the capability of an infant to survive after birth.**

 **Age of viability is 6 intrauterine months, below this age no crime.**

 **Length, weight, developmental changes and ossific centers.**

## III- Live birth or dead birth

 Legally, an infant can't be considered live born unless it has shown signs of life after being completely separated from the mother.

 When an infant is live-born, it exhibits some signs of life which are:

 A- Non medical signs:

 Crying      Movement of limbs  
of eye lids.



**B- Medical evidence: 1- External signs :**

**Yellow well formed stool in the wrappings**

**Desquamation of the skin**

**Changes around the base of umbilical cord:**

**Ring of hyperemia 1 day**

**Ulceration in the ring 3 days**

**Complete separation 1 week**

**healing of the stump 2 week**

**Ante-mortem injuries**



## **B- Internal signs:**

 **Signs of establishment of respiration**

 **Signs of cardiovascular changes**

 **Signs of feeding**

### **a) Signs of respiration**

 **a- Shape of the chest**

 **b- Position of the diaphragm**

 **c- Changes in the lungs**

 **D- Stomach and bowel changes.**

## a- Shape of the chest:

### Before respiration

 Flat, circumference  $<$  that of the abdomen.

 Narrow inter-costal space

### After respiration:

 Arched or drum shaped

 Circumference  $>$  that of the abdomen.

 Wide inter-costal space.

## **Position of the diaphragm:**

**Before respiration**

The highest point at the level of 4<sup>th</sup> or 5<sup>th</sup> rib

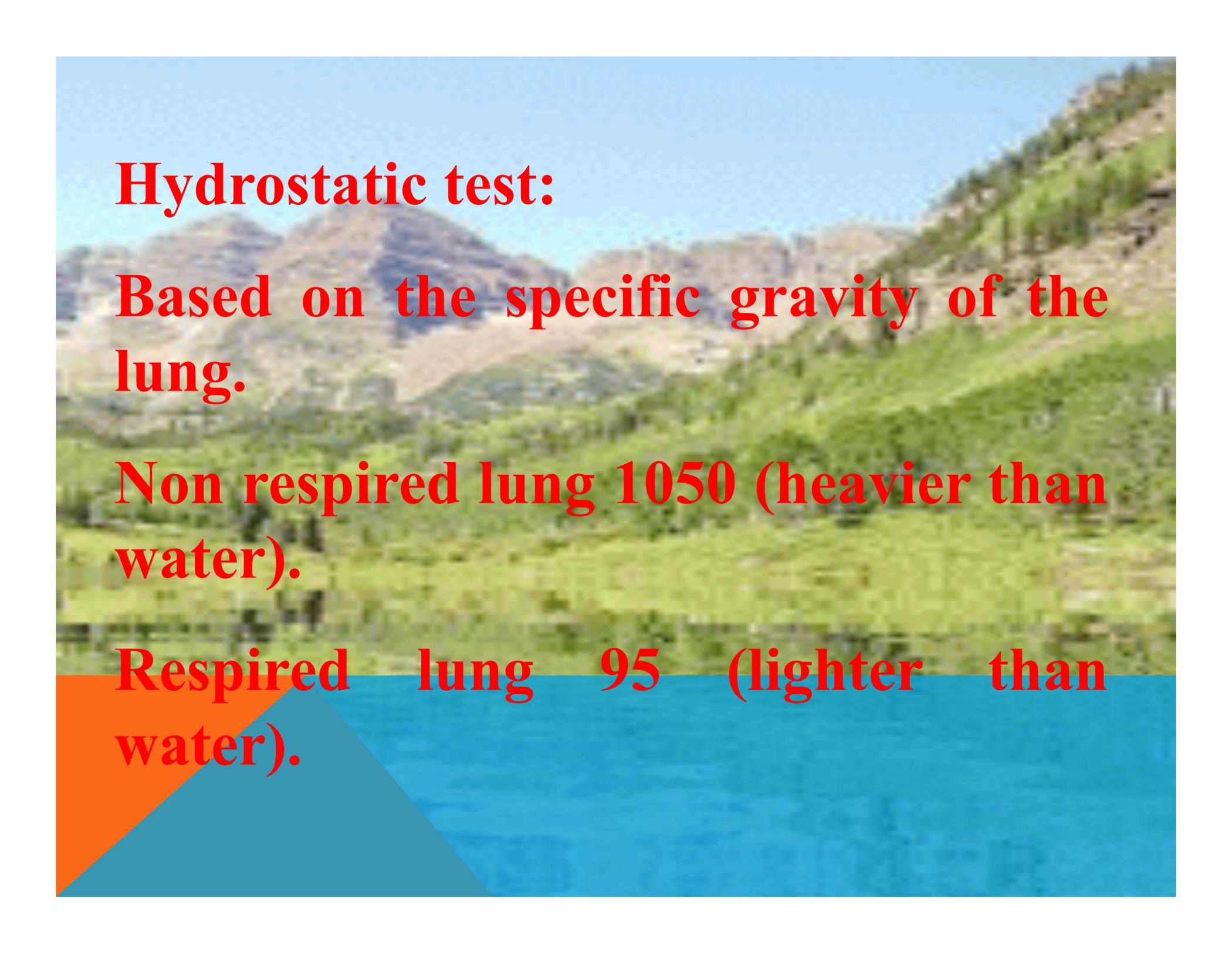
**After respiration:**

The arch become flattened, depressed and descend to the level of 6<sup>th</sup> or 7<sup>th</sup> rib.



# CHANGES IN THE LUNG

<b>macroscopy</b>	<b>Non respired lung</b>	<b>Respired lung</b>
<b>1- volume</b>	<b>Small</b>	<b>Big</b>
<b>2- site</b>	<b>Beside vertebral column</b>	<b>Fill thorax cavity</b>
<b>3- shape</b>	<b>Collapsed</b>	<b>Swollen</b>
<b>4- edges</b>	<b>Sharp</b>	<b>rounded, curve</b>
<b>5- color</b>	<b>Uniform brown with no mottled appearance</b>	<b>Reddish heterogeneous, mottled appearance</b>
<b>6- consistency</b>	<b>Dense and firm</b>	<b>Spongy and elastic</b>
<b>7- weight</b>	<b>1/70 of BW 30 - 50 g</b>	<b>1/35 BW 60 – 80 g</b>
<b>8- thorax</b>	<b>It seems empty, heart &amp; thymus uncovered</b>	<b>Lung covered heart &amp; thymus</b>
<b>microscopic</b>	<b>Collapsed alveoli, lined with colum. epithelium</b>	<b>Distended alveoli lined with flatt.epithelium.</b>



## **Hydrostatic test:**

**Based on the specific gravity of the lung.**

**Non respired lung 1050 (heavier than water).**

**Respired lung 95 (lighter than water).**

## **Method of performing floatation test:**

**All chest organs are removed and placed in a suitable container containing water.**

**Lungs are separated from the heart and thymus and each lung tested individually.**

**Each lung is then cut into small pieces which are again tested.**

**If the pieces float, some subjected to pressure either by being squeezed firmly in a towel or by placing some weight on them.**

**Results and conclusions:**

**All chest organ float ..... Completely well established respiration.**

**Only individual lungs float ..... Respiration for short time.**

**Some float and other sinks ..... Partial penetration of air.**

**After pressure .... Sink (putrefaction).**

**float (respiration).**

**All pieces sink, the infant never attempted to respire.**

## **Fallacies of the test:**

**An expanded lung may sink**

**acute oedema of the lung**

**consolidation (pneumonia)**

**atelectasis**

**Congenital syphilis.**

**Non respired lung may float:**

**putrefactive gases**

**artificial inflation.**

**Partial expansion: Vagitus uterinus and V. Vaginalis.**

**So, it is only a suggestive pointer never defenitive.**

## **Stomach and bowel floatation:**

**Double ligatures are applied to each cardiac end of the stomach, pyloric end, middle of S.I. and end of L.I.**

**Cuts are made between each of the double ligatures.**

**Each part is placed in a water basin separately.**



**Results and conclusions:**

**Stoamch float ..... Respiration for about 2 h**

**Upper half of S.I. .... Continuous respi. 4 h.**

**Lower end of S.I. .... 6 – 8 h.**

**Flotation of L.I.....10 -12 h.**

# Signs of cardiovascular changes:

**Umbilical vessels (2 arteries and one vein).**

**Obliterated immediately after birth.**

**Shrunken, filled with dark red clots (2 – 3 days).**

**Organization of the clot (7 – 10 days).**

**Fibrous band (6 – 8 weeks).**



A silhouette of a plant with a central stem and several branches, set against a background of a sunset or sunrise. The sky is a gradient of orange and yellow, with a bright sun visible in the center. The plant's leaves and flowers are dark against the bright background.

**Foramen ovale**

**Gradually obliterated in 2 weeks**

**Sometimes remain persistently patent.**

**Ductus arteriosus**

**Functional closure 6 hours after birth  
(reflex contraction of its muscular wall).**

**Actual closure few weeks (ligamentum  
arteriosus).**



**Signs of feeding:**

**Stomach:**

**Colostrum or digested milk**

**Intestine:**

**Yellow well formed stools 3 days  
survival.**



**How long did the infant survive after birth:**

**From the following signs**

**Changes of the skin around the umbilical stump.**

**Desquamation of the skin and its extent.**

**Flotation of the stomach.**

**Cardiovascular changes.**

# Causes of death

## A) Natural causes:

Diseases or congenital anomalies.

## B) Accidental:

### \* During delivery:

Prolonged difficult labour

Accidental strangulation (U.C.)

Accidental suffocation





**\* After delivery:**

**Suffocation (membranes over the head).**

**Precipitated labour:**

**multipara**

**large roomy pelvis.**

**small sized infant**

## **C- Criminal causes:**

### **1- Act of omission**

**Leaving the cord without ligation**

**Leaving the infant in the mother's discharges.**

**Leaving without food**

**Leaving without wrapping.**

## **2- Act of commission**

**Violent asphyxia**

**Strangulation**

**Smothering**

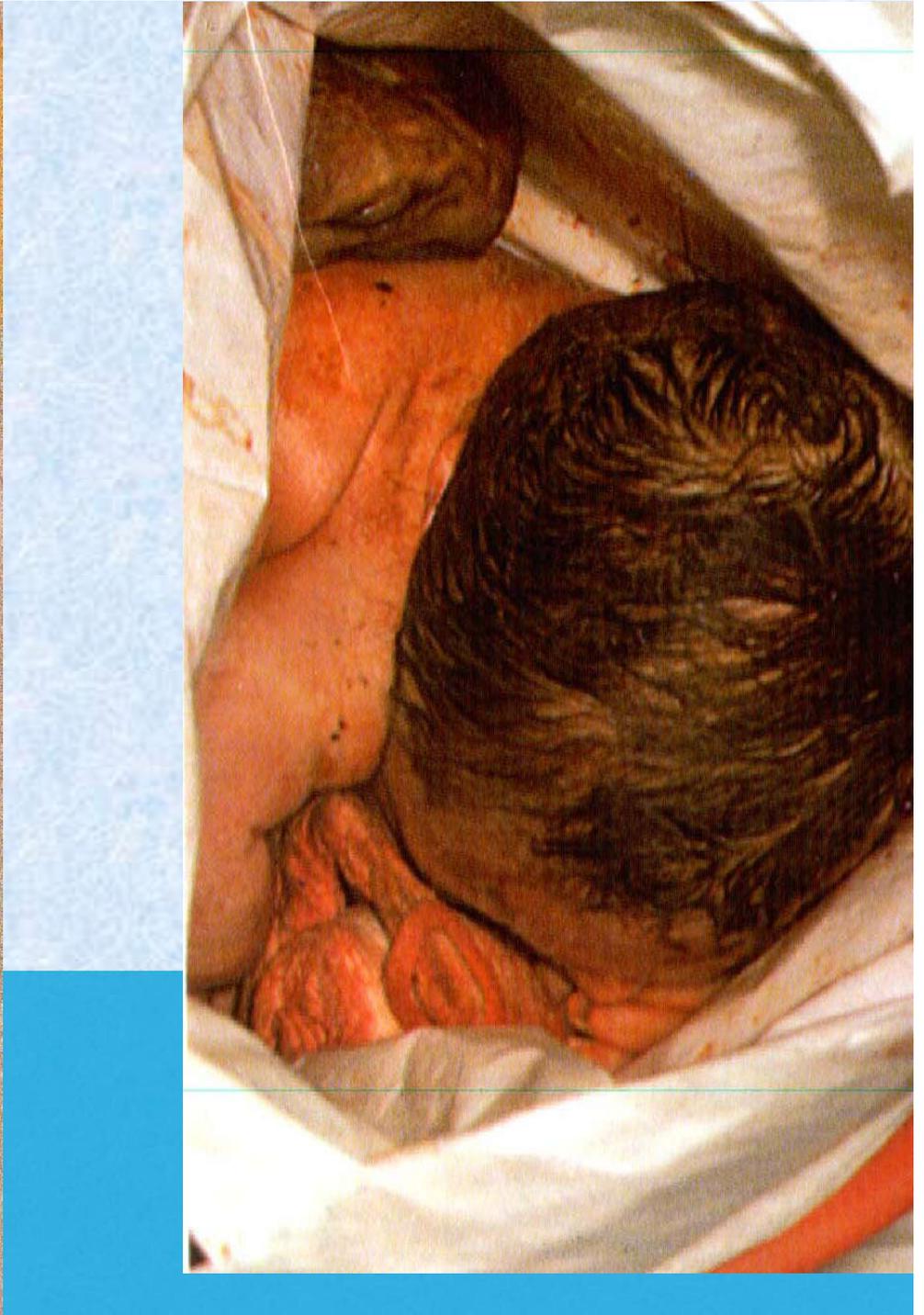
**Chocking**

**Drowning**

**Cut throat**

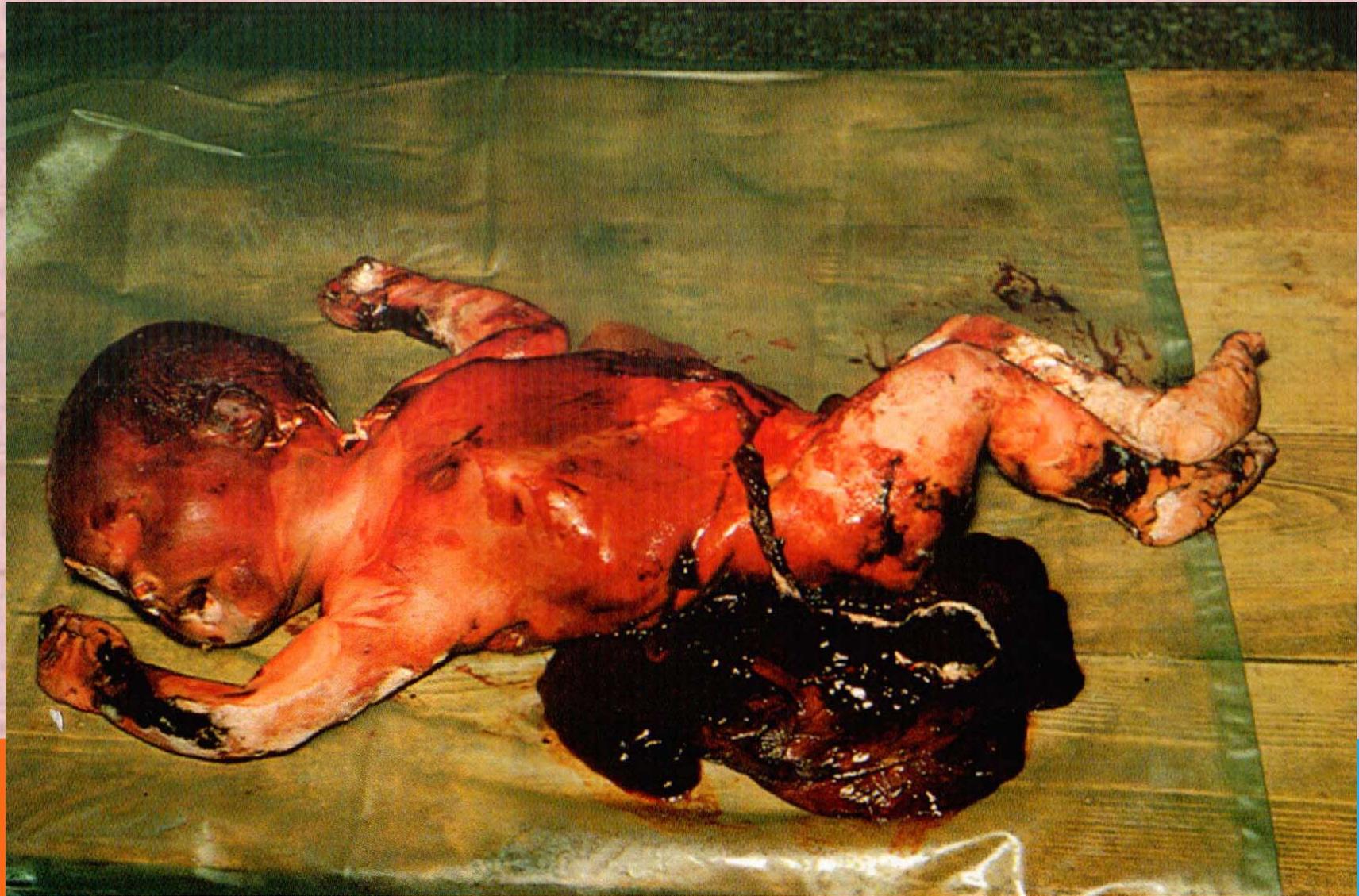
**Head injuries**

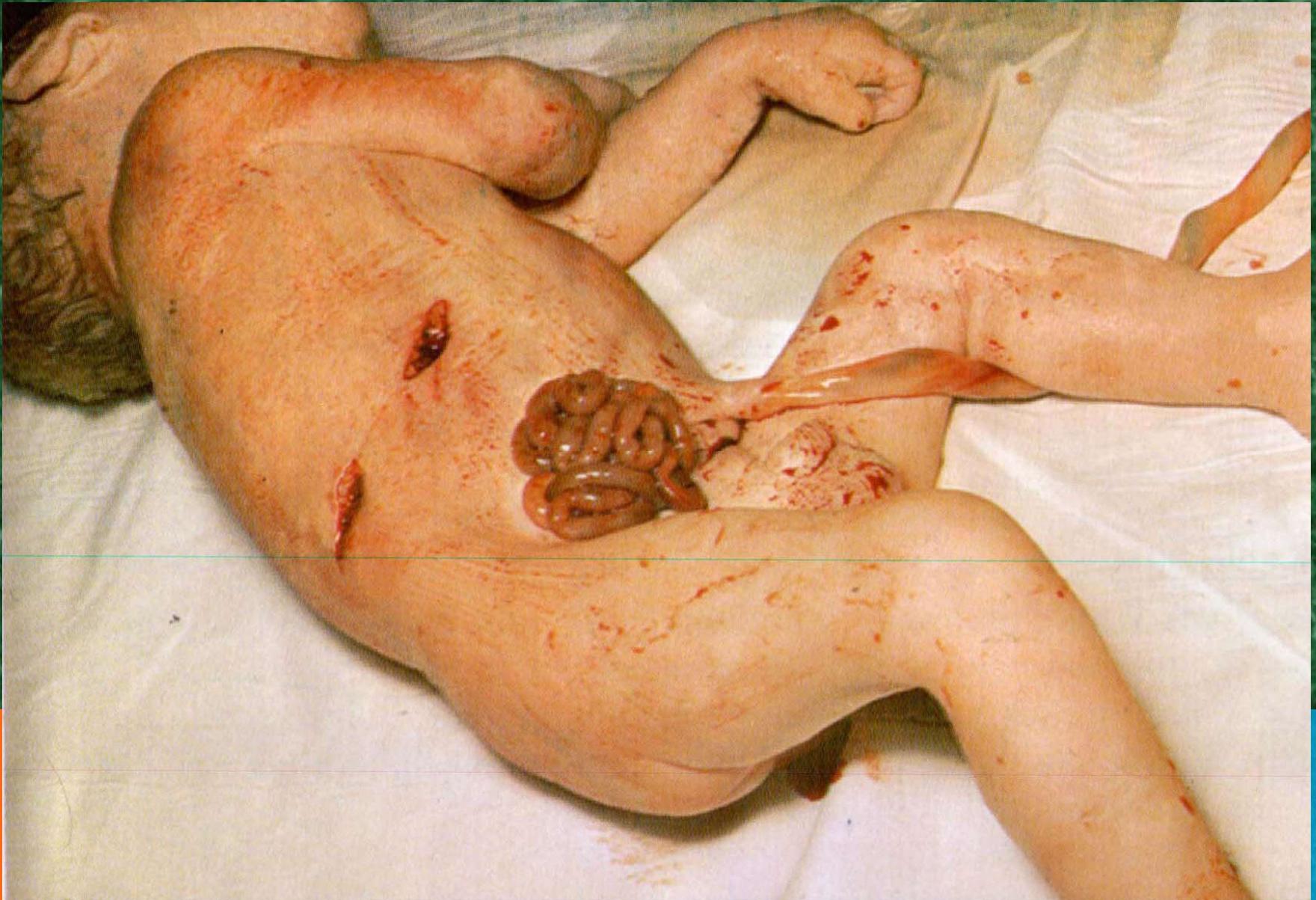
**Burning and poisoning**











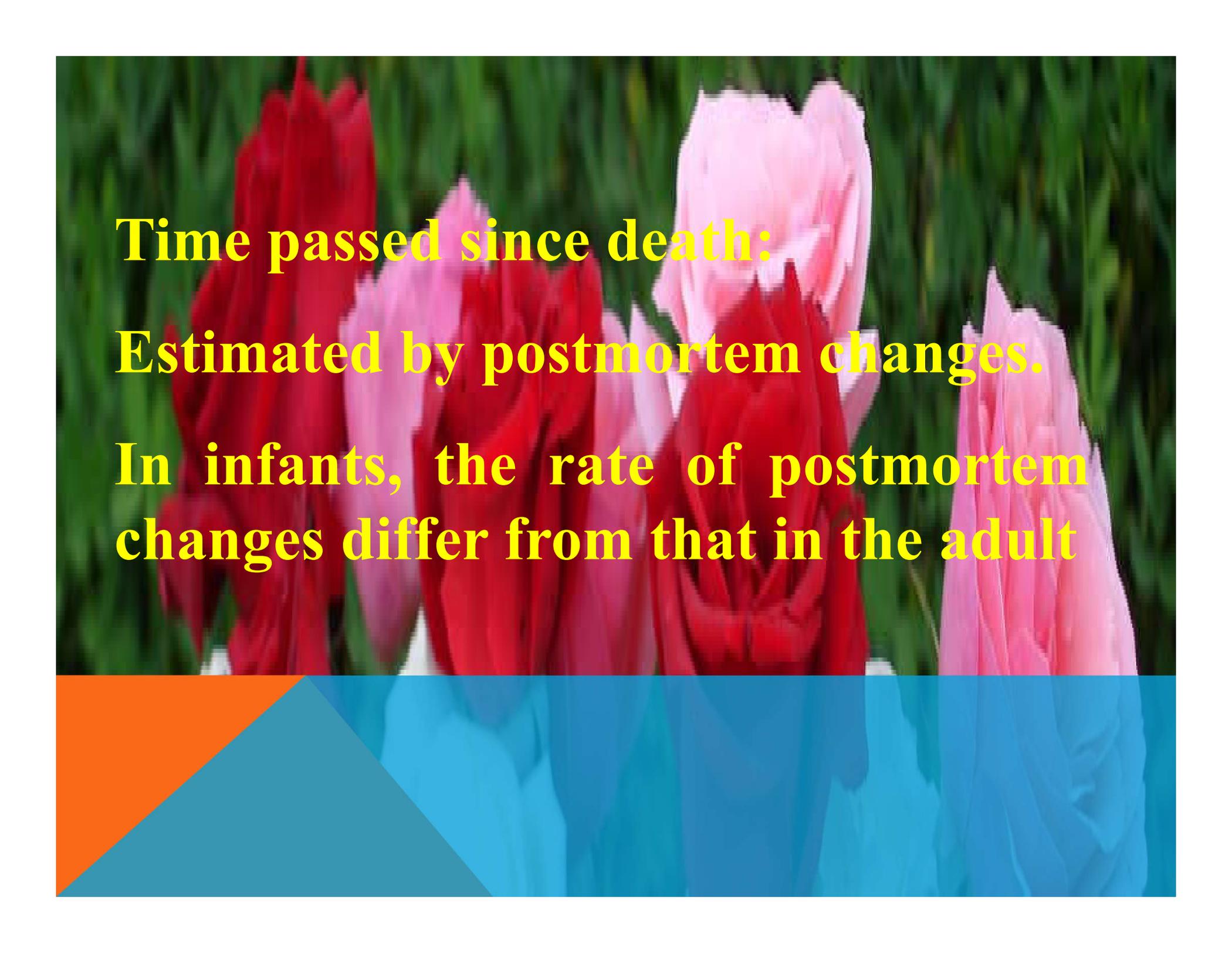


## Difference between fracture in prec. and homicidal

<b>Item</b>	<b>Fr. Precipitated labour</b>	<b>homicidal</b>
<b>Site</b>	<b>Parietal / frontal</b>	<b>Temporal/ occipital</b>
<b>Type</b>	<b>Fissure</b>	<b>Depressed</b>
<b>Umbilical cord</b>	<b>Attached to placenta or torn irregularly</b>	<b>Usually cut regular.</b>
<b>Parity of mother</b>	<b>Multipara</b>	<b>Primi/multipara</b>
<b>Pelvis of mother</b>	<b>Wide roomy never contracted</b>	<b>Normal or contracted</b>

# Difference between accidental and homicidal strangulation

Item	Accidental strangulation	homicidal
Twisting around neck	Usually once	May be twice
Constriction marks	Mild	Deep
Cord laceration	Absent	Present
Wharton's jelly	Normal	Displaced
Signs of respiration	Absent	May be present

A bouquet of tulips in shades of red and pink, set against a blurred green background. The flowers are the central focus of the image.

**Time passed since death:**

**Estimated by postmortem changes.**

**In infants, the rate of postmortem changes differ from that in the adult**

# **Child abuse**

## **Definition:**

**Any behavior directed toward a child by a parent, guardian, care givers, other family members, or other adult, that endanger a child's physical, emotional or developmental health.**

**The child is a person who didn't attained age of 18 years.**



# **Types of child abuse**

**Four major types.**

**Physical abuse**

**Neglect**

**Emotional abuse**

**Sexual abuse.**

# Physical abuse

As a result form of punching, beating, biting, kicking, burning, shaking or otherwise harming the child.

## **Signs of physical abuse:**

**External unexplained injuries**

**Located in parts of the body not usually affected  
normal childhood activities.**

**Repeated injuries with different stages of healing.**

**Behavioral changes, shy, withdrawn,  
uncommunicative**

**Hyperactive, disruptive, aggressive.**

**Denial by the parent that anything is wrong.**



آثار التعذيب  
على الأرجل



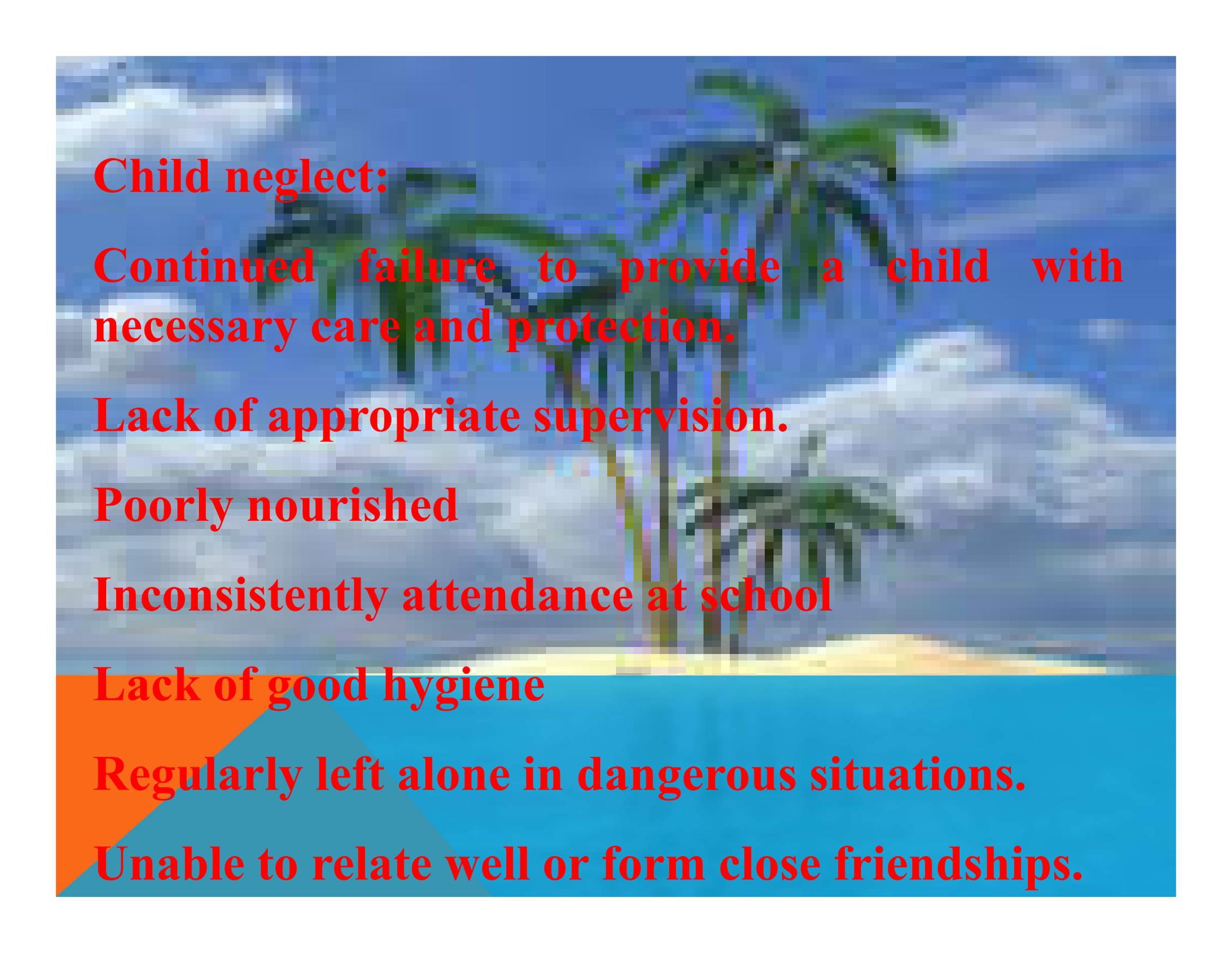






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**Child neglect:**

**Continued failure to provide a child with necessary care and protection.**

**Lack of appropriate supervision.**

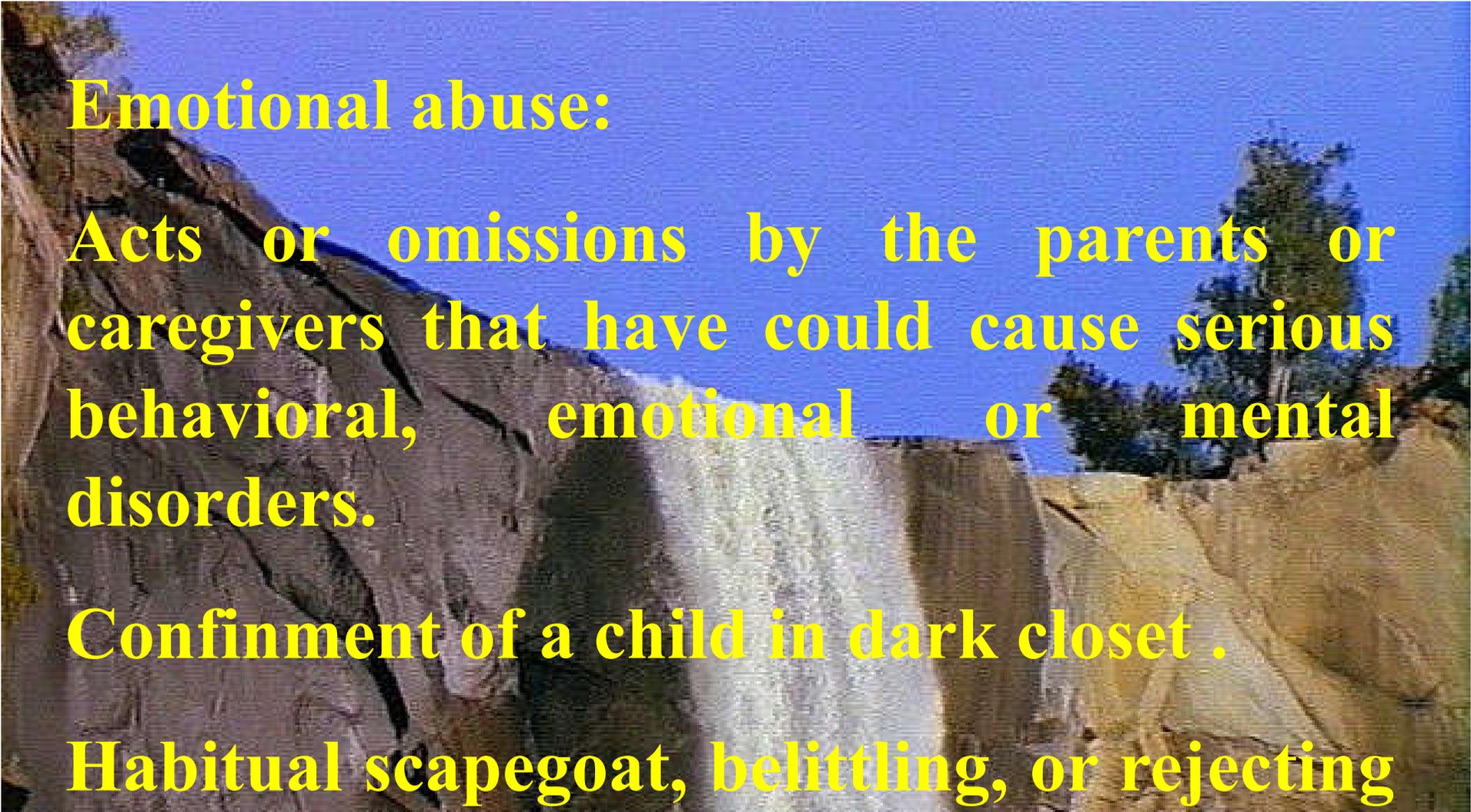
**Poorly nourished**

**Inconsistently attendance at school**

**Lack of good hygiene**

**Regularly left alone in dangerous situations.**

**Unable to relate well or form close friendships.**



## **Emotional abuse:**

**Acts or omissions by the parents or caregivers that have could cause serious behavioral, emotional or mental disorders.**

**Confinement of a child in dark closet .**

**Habitual scapegoat, belittling, or rejecting treatment.**

**It is concerned with other forms of abuse.**

## Indicators of emotional abuse:

Extreme behavior (lying, stealing, fighting)

Aggressive, defensive, overly dependent or shy

Verbally abused the others

Not able to relate well to adults.

## **Sexual abuse:**

**Include fondling of a child's genitalia**

**Intercourse, rape, incest, sodomy**

**Prostitution, exhibitionism**

**Exploitation in pornographic materials.**

**The most under reported because of secrecy or conspiracy of silence.**

**The abuser were abused during childhood.**

**Signs of sexual abuse:**

**Difficulty in walking, sitting.**

**Torn, stained underclothes**

**Pain or itching in the genital areas.**

**Unexplained bruises, lacerations, redness, swelling in the genitals.**

**Bleeding in the vaginal or anal areas.**

**Behavioral changes**

**Afraid from being alone with a particular**



**Shaken baby syndrome:**

**A non accidental intracranial and ocular hemorrhages in infants and young children.**

**Caused by violently shaking an infant.**

**Children 2 – 5 years.**

**Shaking an infant .... Transmitted force to the brain.... Rebound to skull bone .... Brain bruises and tear of the large veins outside the brain .**

**Permanent brain damage or death.**

**Retinal hemorrhage and loss of vision.**



**Symptoms:**

**Change in behavior, irritability**

**Pale or bluish skin**

**Vomiting**

**Convulsions poor eating**

**Apnea**

**Classical triad of subdural hematoma,  
brain swelling and retinal hemorrhage.**