

Non-Fatal Strangulation

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Definitions

What is strangulation?

What are the four main methods of strangulation?

What is strangulation?

Strangulation – the obstruction of blood vessels and/or airway by external pressure to the neck resulting in decreased oxygen supply to the brain

How is suffocation different?

Patients may call it something else – e.g. choking, throttling

Four (main) methods of strangulation

1. Manual strangulation
2. Chokehold or head lock
3. Ligature
4. Hanging



What is the timeline for strangulation and the pressure required to cause damage?

6.8 seconds
Unconscious



14 seconds
Anoxic seizure



30 seconds
Loss of bowel
control



15 seconds
Loss of bladder
control



62 seconds
Respiration
ceases/death

Strangulation Timeline

Pressure required to occlude structures in the neck

Jugular vein 4psi

Carotid artery 11psi

Trachea 34psi

(psi = pounds per square inch)

What are the possible consequences of NFS?

Complications

Carotid artery thrombus or dissection

Stroke

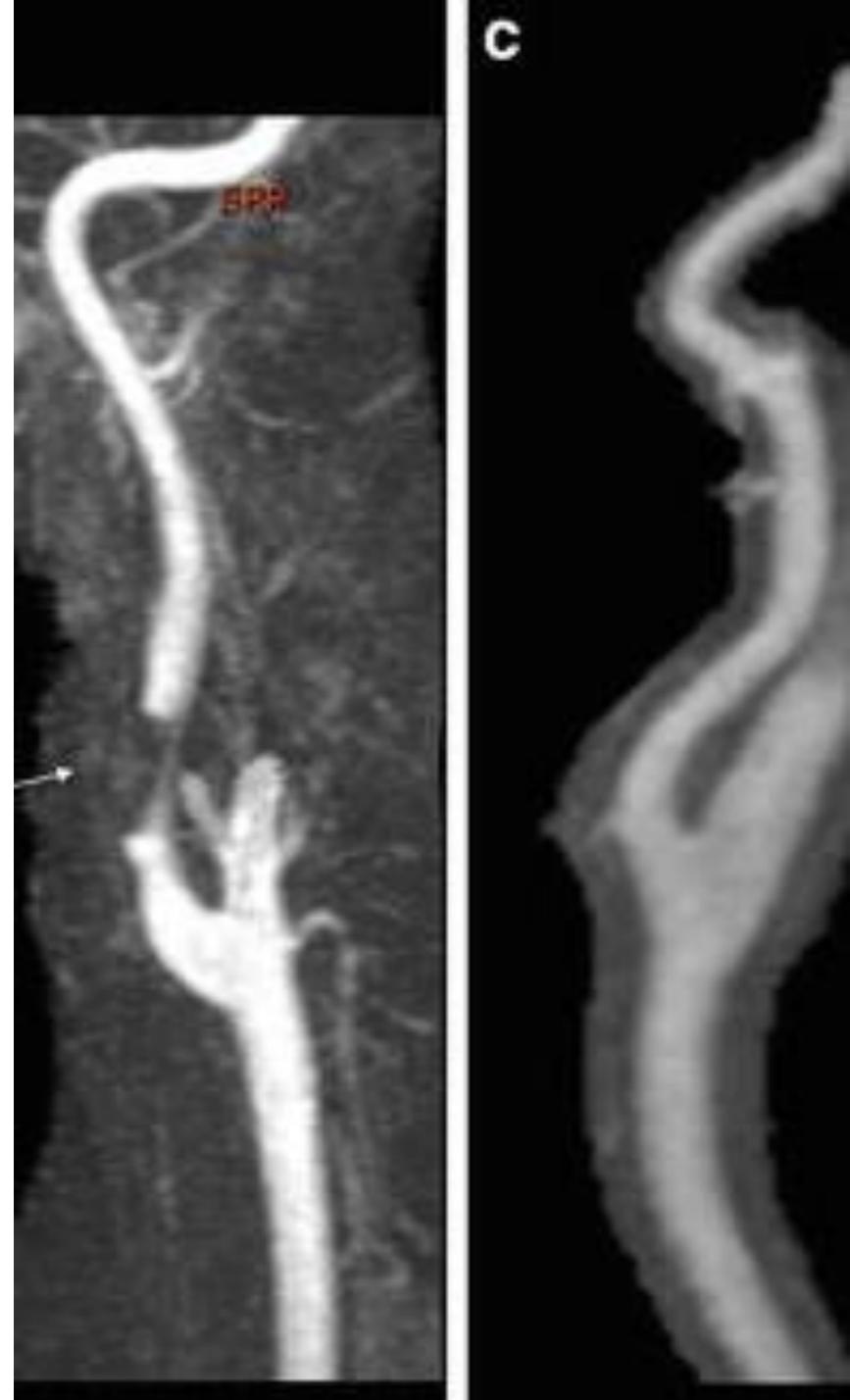
Acquired brain injury

Damage to spinal column

Cardiac dysrhythmia (pressure on carotid body)

Damage to anatomical structures in the neck – vocal cords, muscles, hyoid bone, thyroid

Psychological damage



What is the law
with regards to
NFS?

The Law

Domestic Abuse Act 2021 (section 70) introduced **offences of non-fatal strangulation and non-fatal suffocation.**

Strangulation does not require a particular level of pressure or force and does not require any injury.

Section 71 of DA Act 2021 establishes that there can be no defence in law that the victim consented for the purposes of sexual gratification where the victim suffers serious harm

All cases MUST be reported to the police

Clinical Assessment

(Rule one - Ask about it!)

History Taking

History Taking

At the time of the incident

- * None
- * Visual disturbance
- * Auditory disturbance
- * Faecal and/or urinary incontinence
- * Loss of consciousness

Since the incident

- * Respiratory/laryngeal – stridor, dyspnoea, cough, breathing problems, hoarse voice
- * Oro-pharyngeal – pain/difficulty swallowing, dribbling, swelling, vomiting
- * Neurological – seizures, dizziness, headache, motor impairment/weakness, sensory symptoms, memory loss
- * Gynaecological – PV bleeding

N.B. 50% will have
no clinical signs

Clinical Examination

General observations – pulse, BP, sats, GCS

Neck – pain, swelling, bruising, abrasions, voice, swallow

Face/mouth/eyes/behind ears – swelling, bleeding, bruising, petechiae, subconjunctival haemorrhage

Cardiovascular/respiratory – carotid bruits, subcutaneous emphysema

Neurological – Motor and sensory impairment

Clinical Examination

(Remember photography)

BOX B: Red flags related to the strangulation

A Airway compromise

- History of significant pressure applied to the neck
- Dyspnoea (objective signs/symptoms¹⁰)/ voice changes
- Dysphagia or odynophagia (difficulty or pain on swallowing)
- Neck swelling or tenderness of larynx/ trachea

(C) Cervical Spine

- Mechanism concerning for, or radiological evidence identified of, cervical spine injury

B Dyspnoea (objective signs/symptoms¹⁰)

Subcutaneous emphysema

C Petechial haemorrhages on face/neck/oral/conjunctival

Any degree of bruising to neck or ligature marks (Note 50% have no mark so absence is not reassuring)

Carotid bruits (absence is not reassuring)

Carotid tenderness

D Loss or near loss of consciousness

Amnesia or altered mental state (dizzy, confused, loss of memory or awareness)

Incontinence (bladder and/or bowels)

Neurological symptoms or signs

- Seizure
- Stroke like symptoms
- Severe headache
- Tinnitus
- Hearing loss
- Parasthesia

Visual symptoms

- Flashing lights, spots, stars, tunnel vision

Previous head injury/stroke

Red Flags

(from IFAS)

What imaging would you consider (if any?)

Imaging Guidelines (intercollegiate document)

BOX C

Imaging (should be done within 1 hour)

- CT angiography of the neck and intracranial vessels^a
- +/- CT head^b
- +/- CT chest^c

- a. Arterial phase study with bone reconstructions of the cervical spine recommended.
- b. Initial non-contrast CT head scan if clinical indicators present (GCS <14, witnessed seizure, history of incontinence, focal neurology, concerning blunt trauma to head evident clinically).
- c. CT chest scan if clinical indications of subcutaneous emphysema, dyspnoea or concerning blunt trauma to the chest evident clinically

Ultrasound/carotid doppler ultrasound and plain X-rays are NOT RECOMMENDED for evaluation of the vascular or soft tissue structures in this setting.

Research on Children

September 2025, Analysis of case files of children reporting non-fatal strangulation as part of a sexual assault

- * Prevalence of 5.05% in children attending for forensic medical examination with upward trend
- * Higher prevalence – **female**, older, white, mental health conditions
- * All alleged perpetrators male, one third also children
- * Cases doubled over the 7-year study period

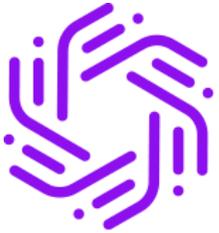
CPS December 2022 – In 38% of cases of reported NFS, children were present

Take Home Messages



- * Non-fatal strangulation is becoming more common
- * You need to ask the question
- * The police must be informed
- * Requires a thorough clinical assessment
- * 50% have no clinical signs
- * Imaging guidelines are clear

Key Information Sources



Institute For
Addressing
Strangulation



**Faculty of Forensic
& Legal Medicine**
Royal College of Physicians



Any questions?