

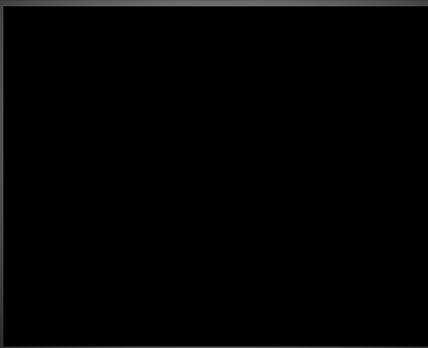
Cranial Nerve 2: Optic Nerve

- 1 Visual acuity
- 2 Visual fields
- 3 Colour vision
- 4 Pupils
- 5 Fundoscopy

Visual Acuity



Visual Acuity



Visual Acuity



Distance at which the chart is viewed

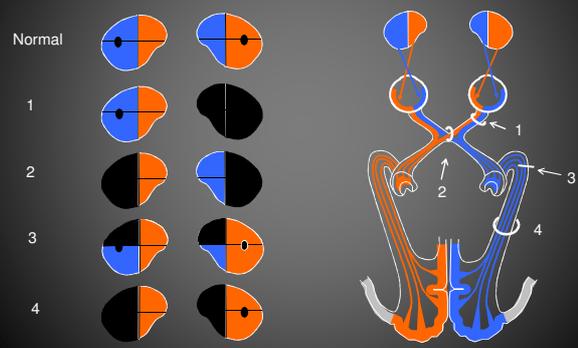
 Distance at which a normally sighted person can view the letter*

*The distance at which the letter subtends five minutes of arc

If patient cannot read largest line

- 1 Move chart closer
- 2 Counting fingers
- 3 Hand movements
- 4 Perception of light

Visual Fields



Visual Fields



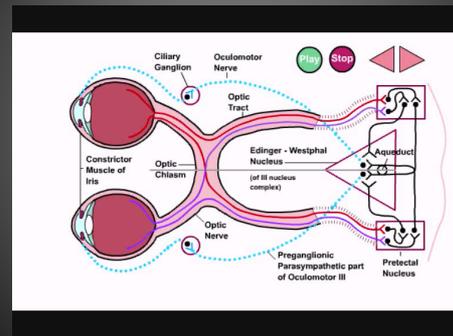
Colour Vision



Colour Vision



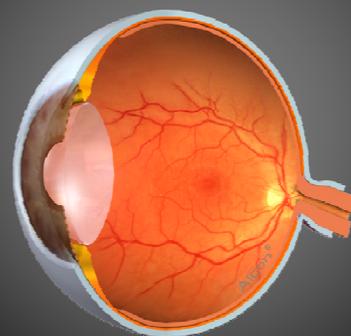
Pupils

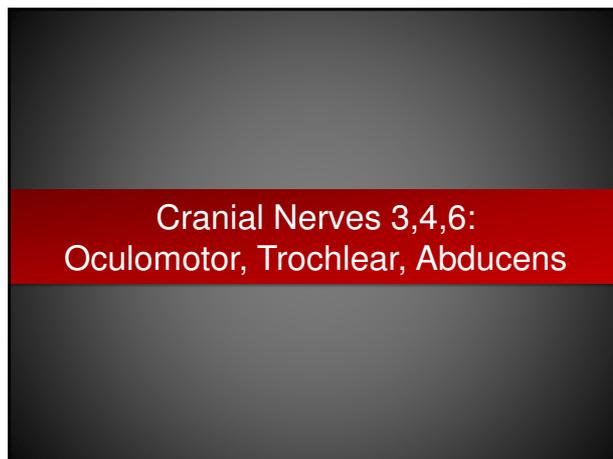


Pupils



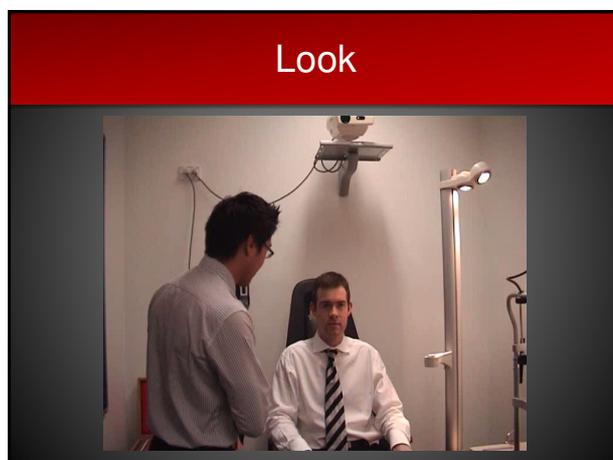
Fundoscopy





Cranial Nerves 3, 4, 6: Oculomotor, Trochlear, Abducens

- Look
 - Eyelid droop
 - Alignment of eyes
 - Corneal light reflexes

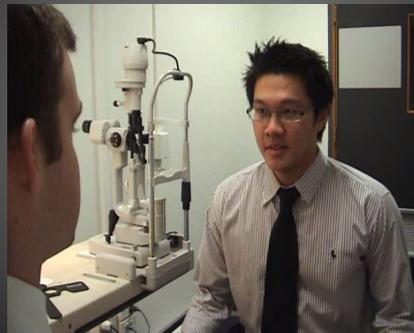


Cranial Nerves 3, 4, 6: Oculomotor, Trochlear, Abducens

- Move
 - “H-pattern”
 - Double vision
 - LF
 -
 -
 -

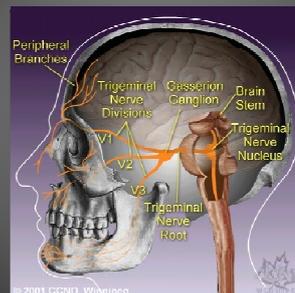


Move

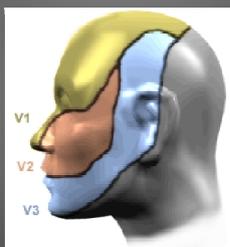


Cranial Nerve 5: Trigeminal Nerve

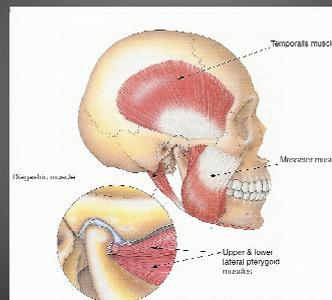
Cranial Nerve 5: Trigeminal Nerve



Cranial Nerve 5: Trigeminal Nerve



Cranial Nerve 5: Trigeminal Nerve



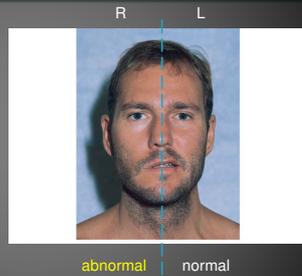
Cranial Nerve 5: Trigeminal Nerve



Cranial Nerve 7: Facial Nerve

Cranial Nerve 7: Facial Nerve

- Look
 - Facial droop
- Move
 - Facial expression

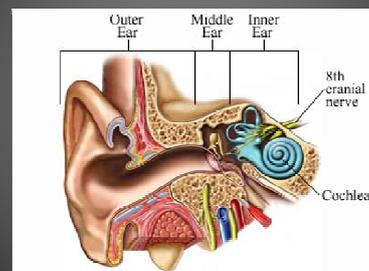


Cranial Nerve 7: Facial Nerve



Cranial Nerve 8: Auditory Nerve

Cranial Nerve 8: Auditory Nerve



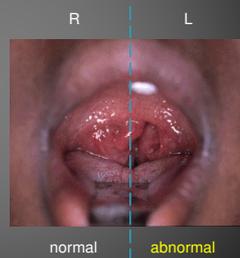
Cranial Nerve 8: Auditory Nerve



Cranial Nerves 9, 10: Glossopharyngeal, Vagus

Cranial Nerves 9,10: Glossopharyngeal, Vagus

- Uvula deviation
- Gag reflex

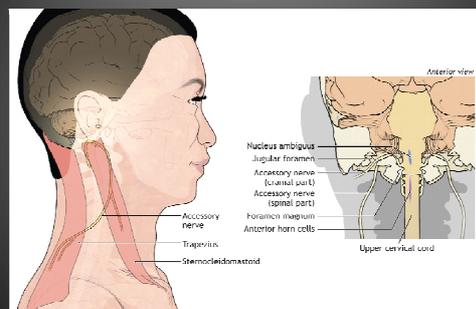


Cranial Nerves 9,10: Glossopharyngeal, Vagus



Cranial Nerve 11: Accessory Spinal

Cranial Nerve 11: Accessory Spinal



Cranial Nerve 11: Accessory Spinal



Cranial Nerve 12: Hypoglossal Nerve

Cranial Nerve 12: Hypoglossal

- Tongue deviation

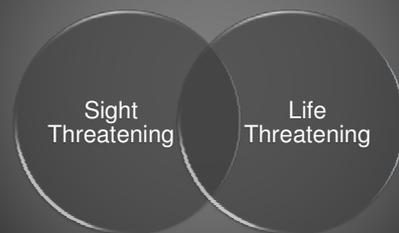


Cranial Nerve 12: Hypoglossal



Cranial Nerve Palsies

Cranial Nerve Palsies



Third Nerve Palsy

Third Nerve Palsy

Symptoms	Double vision Ptosis Painful or painless*
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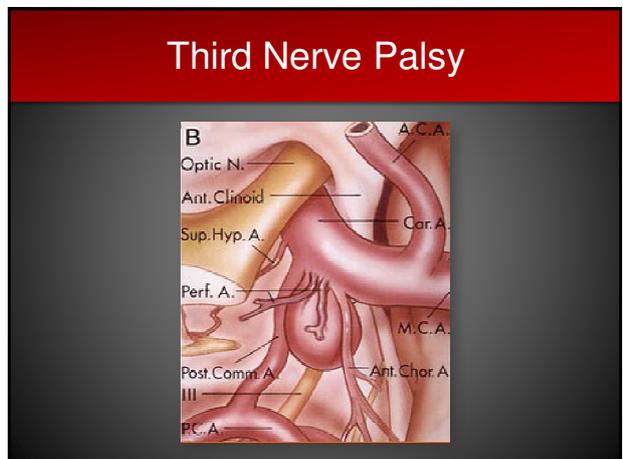
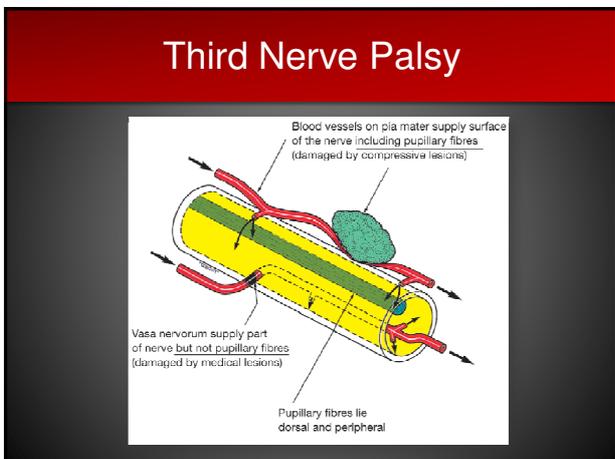
*Does not distinguish between microvascular and compression

Third Nerve Palsy

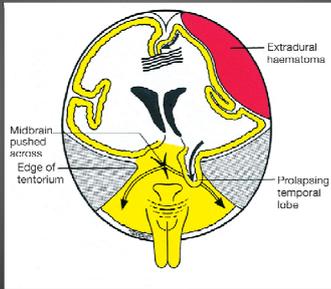
Signs	Ptosis Eye 'down and out' Limitation of eye movements in all directions except toward the ear Dilated pupil, minimally reactive to light
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Third Nerve Palsy

Causes	Pupil involving: compressive lesion Pupil sparing: microvascular disease
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Third Nerve Palsy



Third Nerve Palsy



Third Nerve Palsy



Third Nerve Palsy

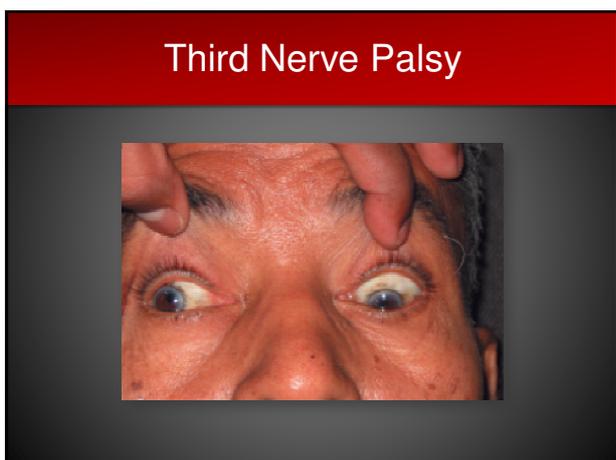


Third Nerve Palsy



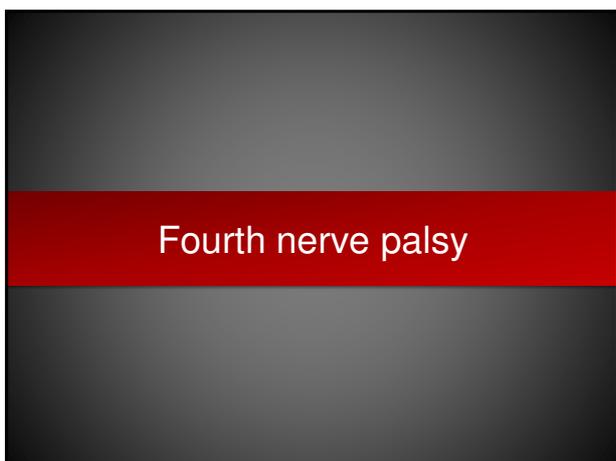
Third Nerve Palsy





Third Nerve Palsy

Management	<ol style="list-style-type: none"> 1. Immediate FBC, ESR, CRP if > 55 y 2. Immediate neuroimaging if pupil involving
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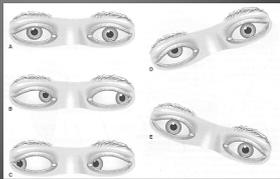


Fourth nerve palsy

History	Vertical double vision
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Fourth nerve palsy

Exam	Head tilt (toward normal side) Affected eye higher (often subtle)
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Fourth nerve palsy

Causes	Trauma Microvascular GCA Tumour, hydrocephalus, aneurysm
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Fourth nerve palsy

Management

MRI Brain (Age<45, other CN nerves involved)
 FBC, ESR, CRP (Age>55)
 Refer Ophthalmology

Sixth nerve palsy

Sixth nerve palsy

History

Horizontal double vision

Sixth nerve palsy

Exam

Eye turned in
 Poor outwards movement

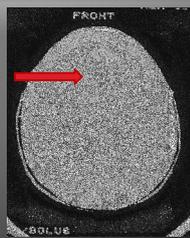
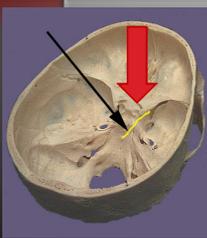
?Bilateral ?Swollen discs



Sixth nerve palsy

Causes

Microvascular (DM, Atherosclerosis)
 Trauma, GCA
 Raised intracranial pressure ?mass



Sixth nerve palsy

Management

MRI Brain (Age<45, bilateral, swollen discs)
 FBC, ESR, CRP (Age>55)
 Refer Ophthalmology

Seventh Nerve Palsy

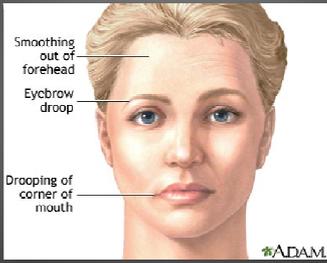
Seventh Nerve Palsy

Symptoms	Weakness of one side of face Inability to close eye Excessive drooling
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Seventh Nerve Palsy

Examination	Weakness of one side of the face Loss of nasolabial fold Drooping of corner of mouth Ectropion Lagophthalmos
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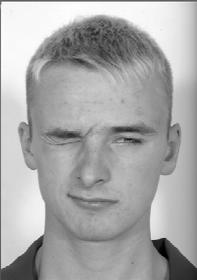
Seventh Nerve Palsy



Smoothing out of forehead
Eyebrow droop
Drooping of corner of mouth

ADAM

Seventh Nerve Palsy



Seventh Nerve Palsy

Causes	Tumours Trauma Stroke Infection Iatrogenic Idiopathic (Bell's palsy)
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Seventh Nerve Palsy

Management

Refer as appropriate
Tape eye at night
Lacrilube nocte
Monitor for exposure keratopathy

Seventh Nerve Palsy

Prognosis

86% of patients with Bell's palsy recover completely within 2 months

Giant Cell (Temporal) Arteritis

Giant Cell (Temporal) Arteritis

Polymyalgia
Rheumatica
(PMR)

Giant
Cell
Arteritis
(GCA)

Giant Cell Arteritis

History

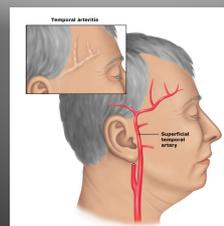
Age > 50
Headache
Scalp tenderness
Jaw claudication
Fever, fatigue, weight loss
Proximal myalgia

Vision Loss (15-20%)
Double vision*

Giant Cell Arteritis

Exam

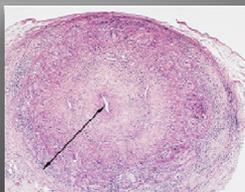
Temporal arteries (tender, not pulsatile)
Cranial Nerve 2 (vision, colour, pupil, fundus)
Cranial Nerve 3, or 4, or 6



Arteritic Ischaemic Optic Neuropathy (Giant Cell Arteritis)

Management

1. Immediate FBC, ESR, CRP
2. Immediate systemic steroids (determine dose with Ophthalmology Registrar)
3. Transfer Ophthalmology
4. Temporal artery biopsy



Thank you