

Adult Brachial Plexus Examination



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Overview

- Resource
- Aim
- Adult examination



Scottish National BRACHIAL PLEXUS INJURY SERVICE

Specialist multidisciplinary integrated management, assessment, surgical reconstruction and rehabilitation for brachial plexus injury in Scotland and the UK



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Parents & Children



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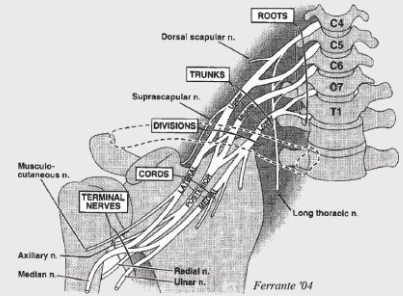
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ABPI

history (post-ATLS)



Mechanism of injury & energy transfer

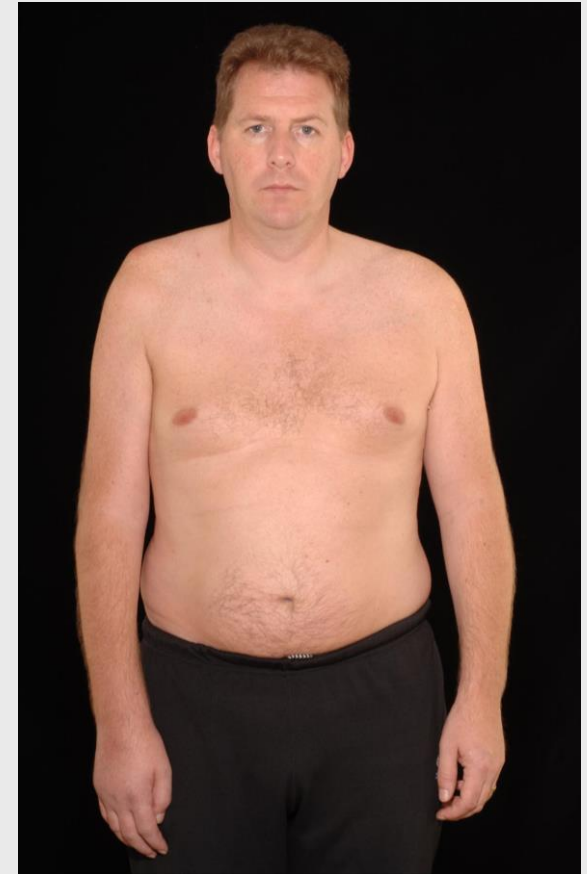
Other injury: vascular / C-spine / ortho / pulmonary

Initial nerve exam – any change?

PAIN

Individualised functional requirement

Age, co-morbidity, previous nerve pathology, anaesthetic factors, SHx



Screening Examination

Thanks are due to my
“willing volunteer” in the
following videos

- Respect any pain
- Standing best
- Quick but imprecise
- Click on the image to
the right to watch
video

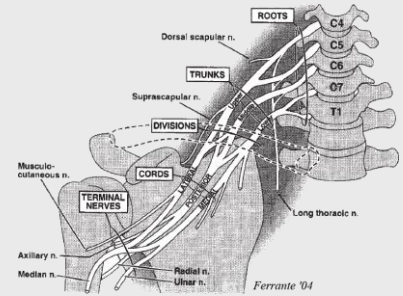


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ABPI

Investigations

- CXR +/- CTA
- MRI
 - Evidence of avulsion
 - C-cord profile
- Neurophysiology after 2-4 weeks
 - Pre- / post-ganglionic (SNAP)
 - Muscle denervation
 - Evidence of conduction across injury
- Anaesthetic workup
- Exploration



Adult Plexus Examination (post ATLS)

- Respect their pain
- Support their palsy - position the limb then ask to maintain it
- Standing preferable
- Logical order for you:
 - Horner's
 - Perfusion
 - Inspection
 - Motor (MRC grade)
 - Sensory (0-10)
 - Tinel's Sign

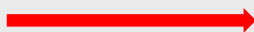
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video 

MRC Scale in Plexus Examination

- MRC Scale:
 - 0 – no contraction
 - 1 – flicker but no movement
 - 2 - contraction with gravity eliminated
 - 3 – (weak) contraction against gravity
 - 4 – contraction with sub-normal power
 - 5 – contraction with normal power
- Note this is an interval scale, with functional relevance weighted to the increment from 3-4

•Click on the image to the right to watch video



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