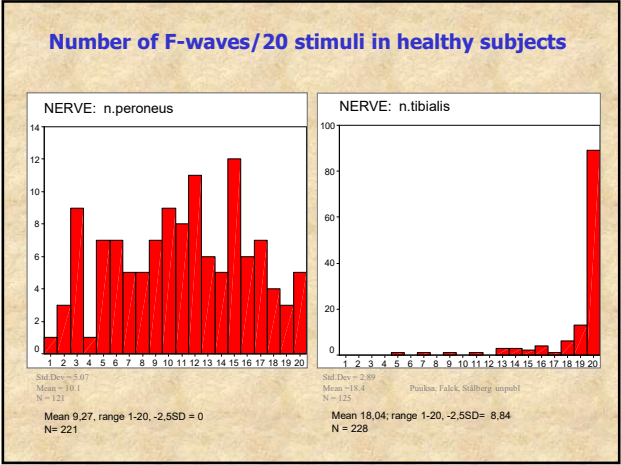
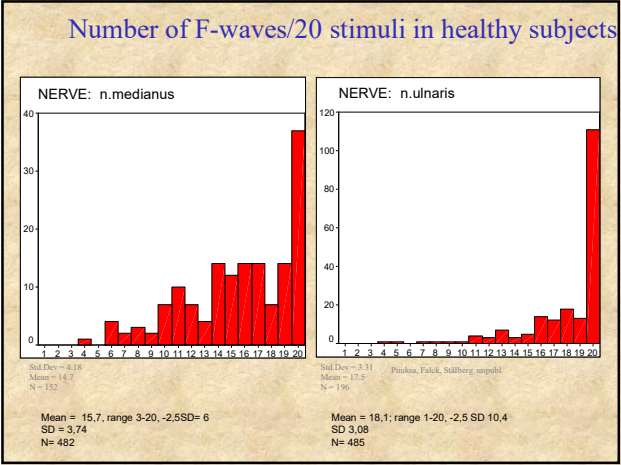
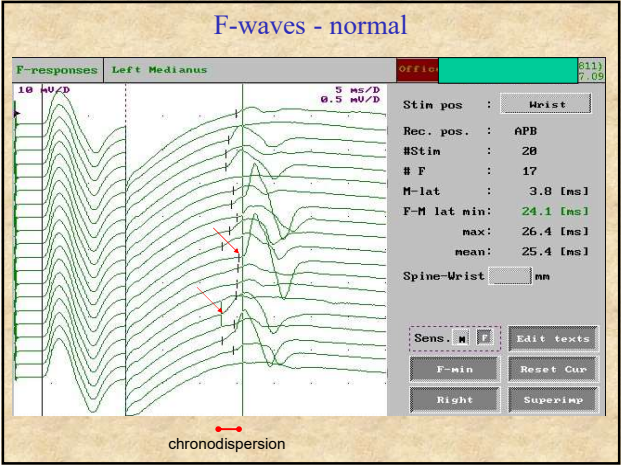
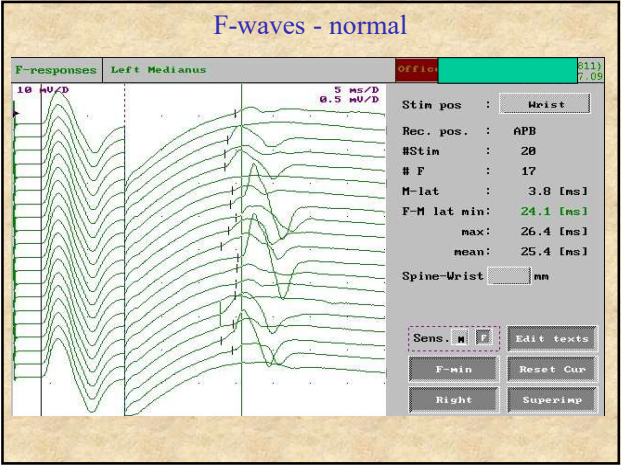
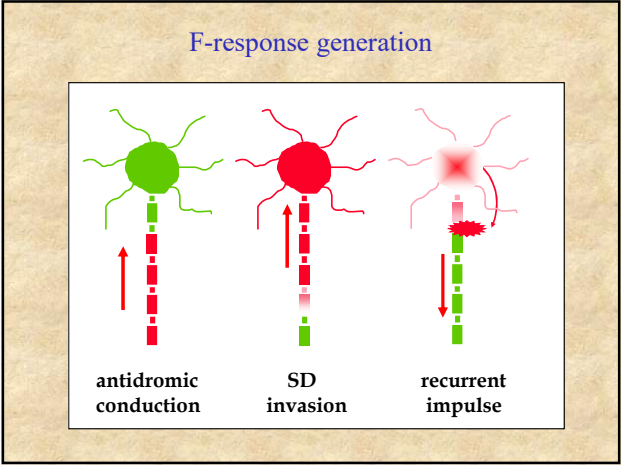
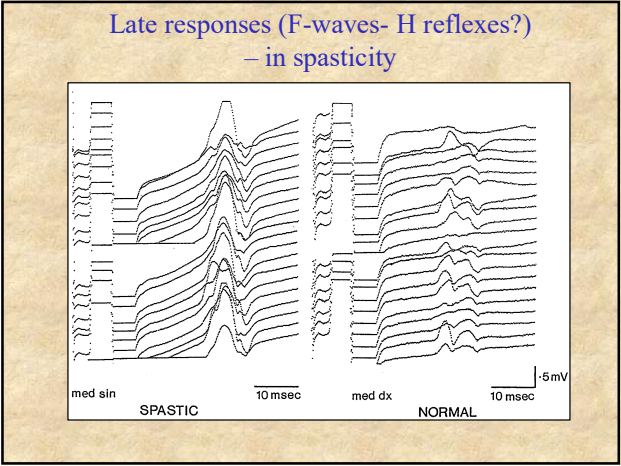
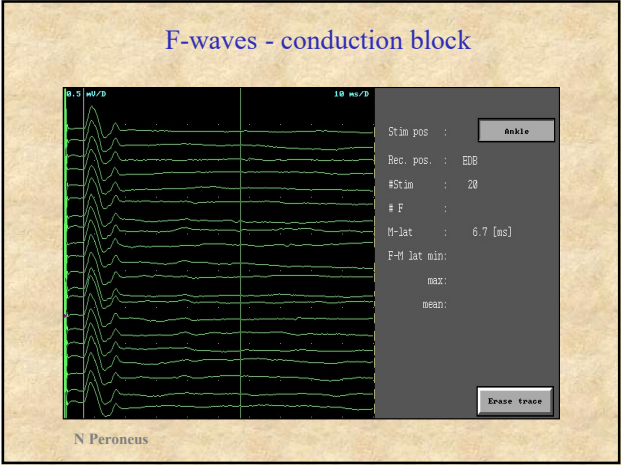
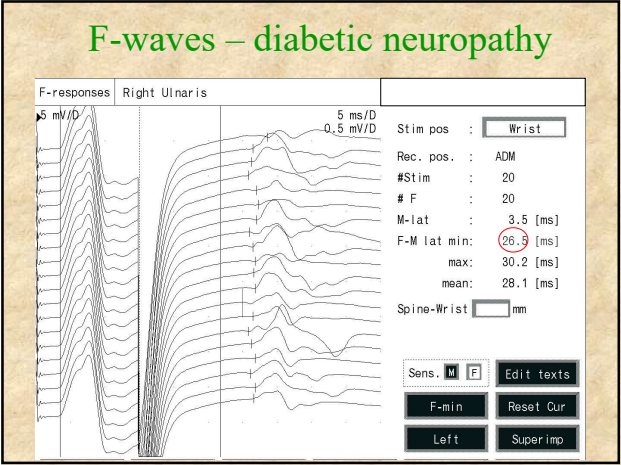


**Late responses & Reflexes**

- F-wave
- Repeaters
- A-wave
- CMAP followers
- H-reflex
- T-wave
- Blink-reflex
- Flexion-reflex
- Interlimb reflex
- C-wave

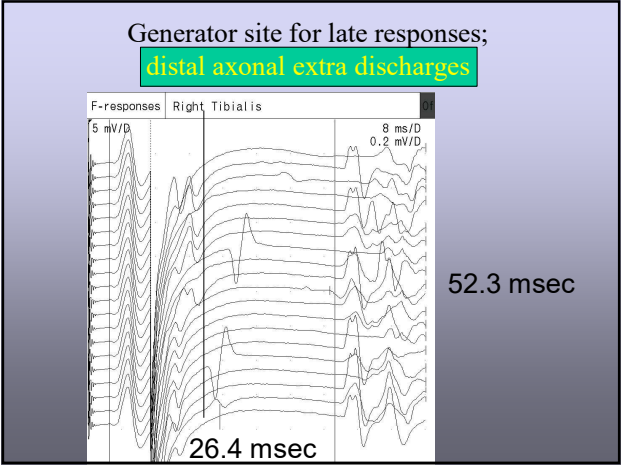
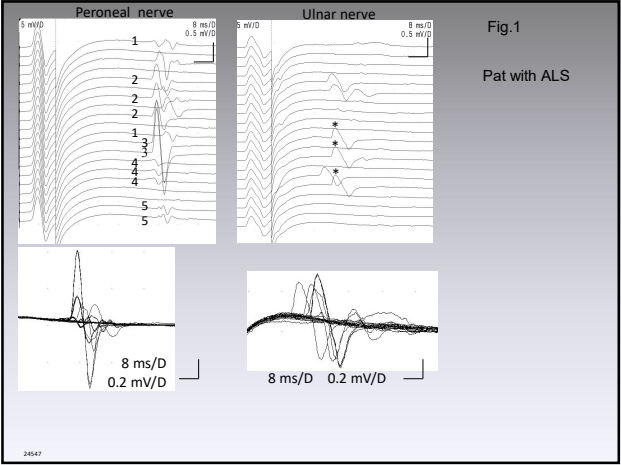
Stålberg

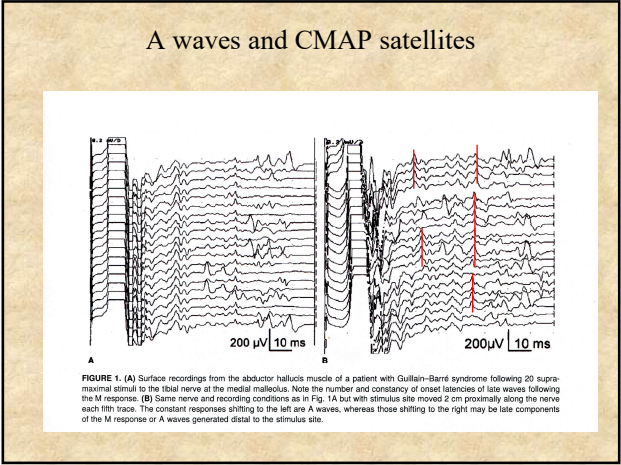
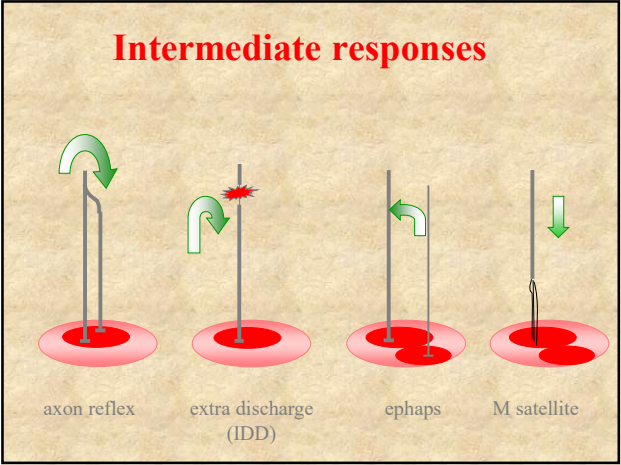
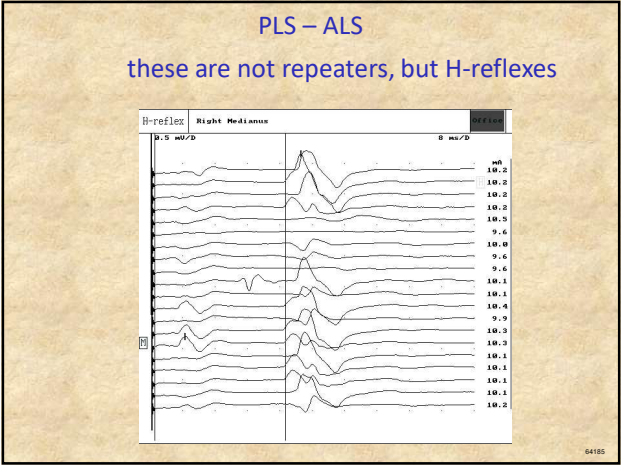
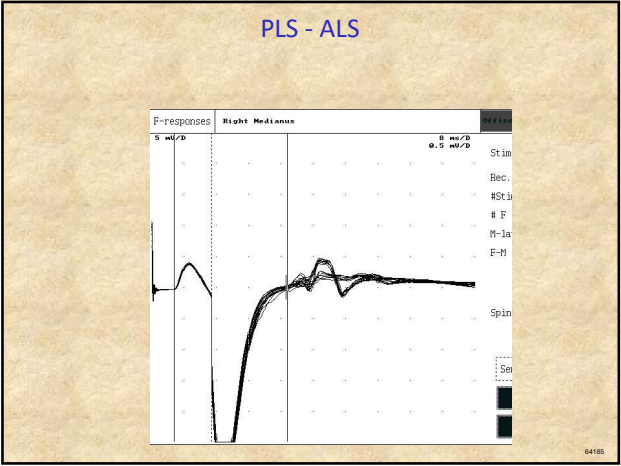
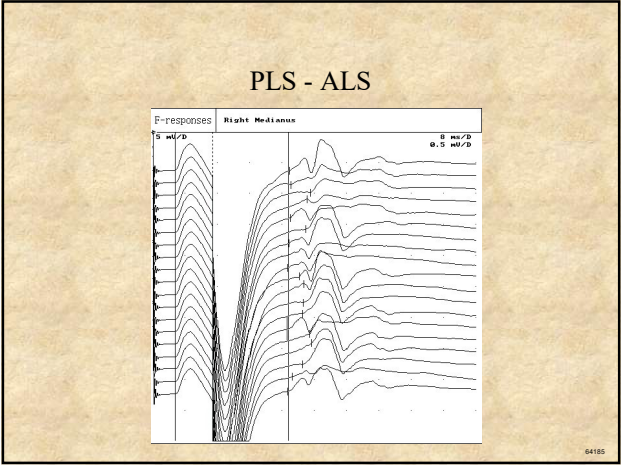
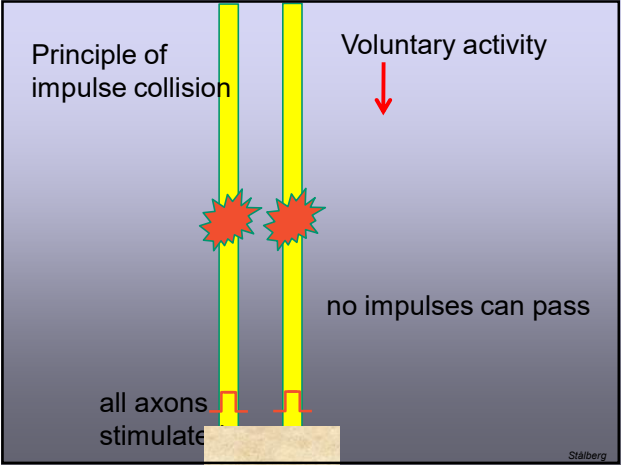


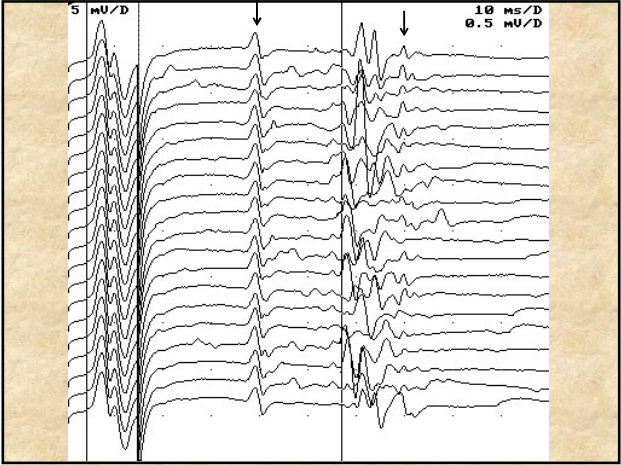
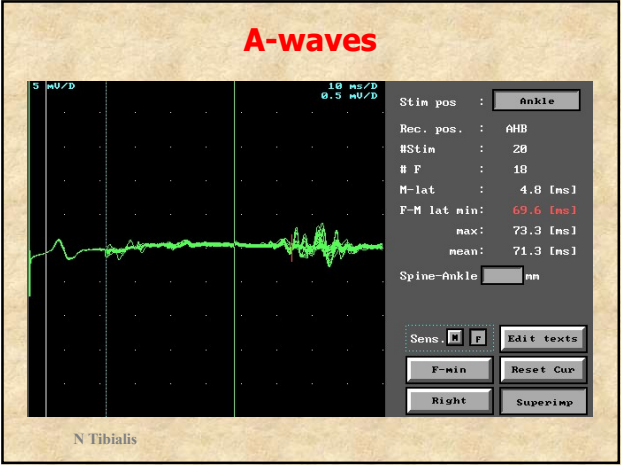
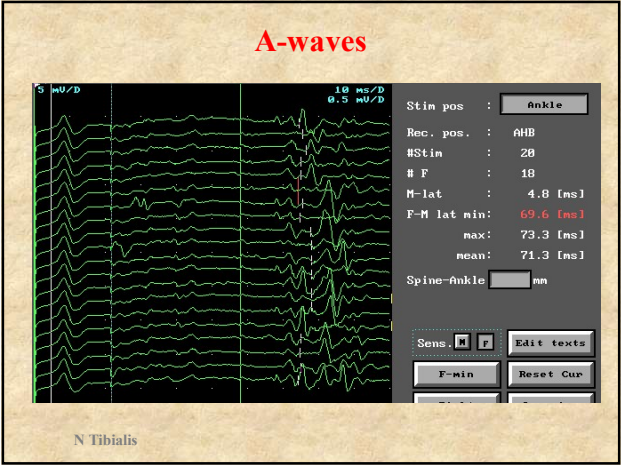
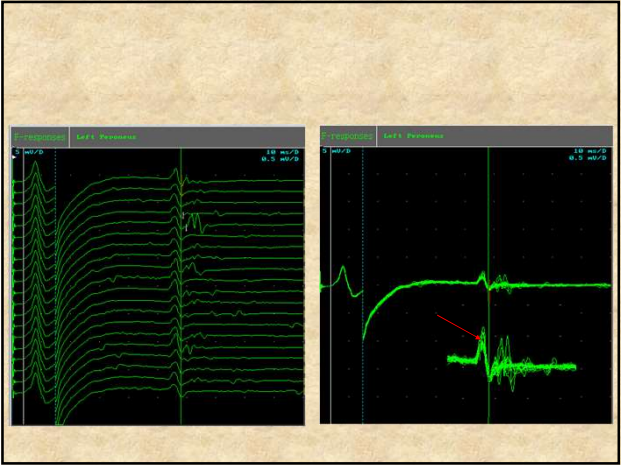
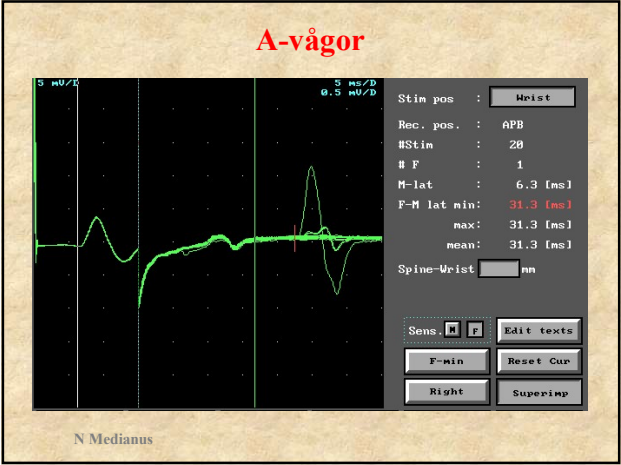
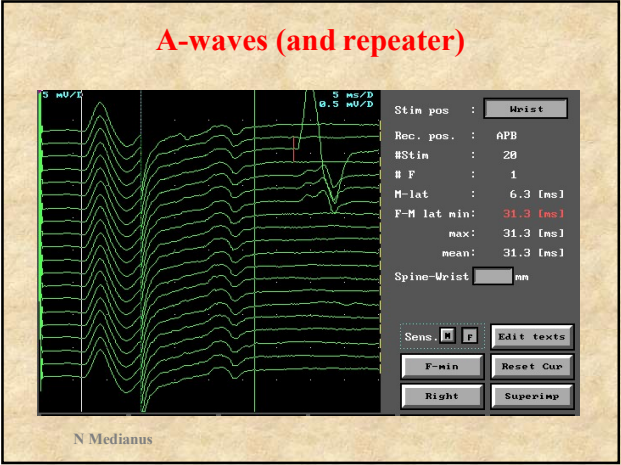


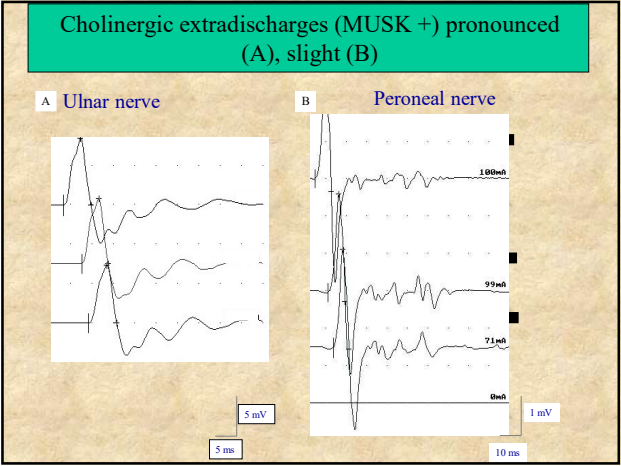
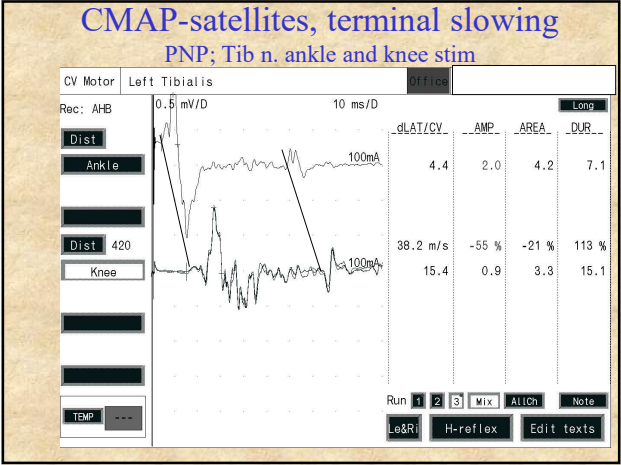
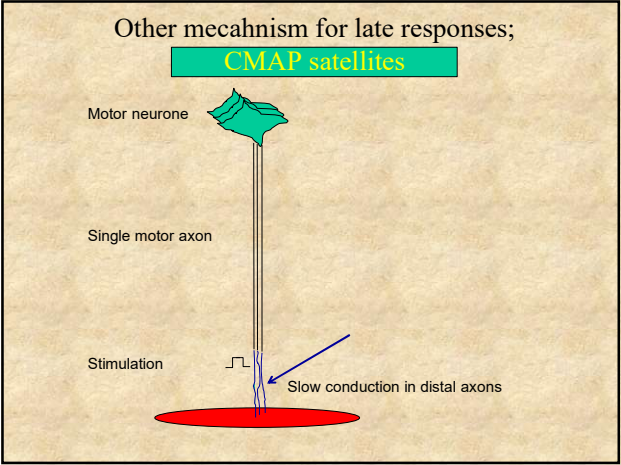
# Repeaters

Stålberg

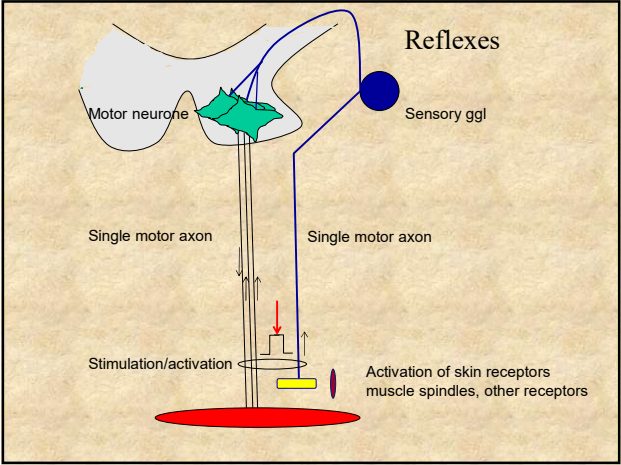
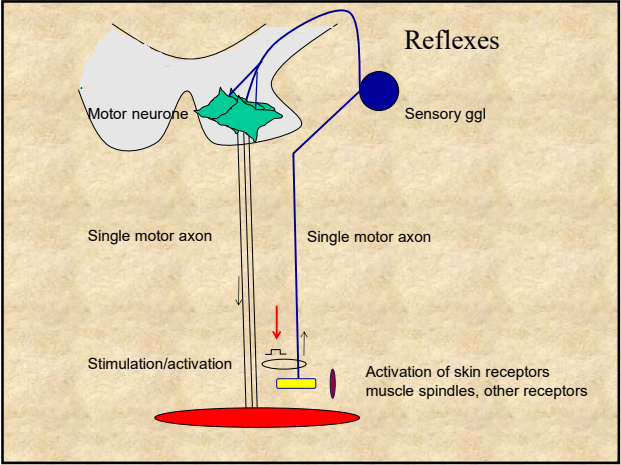


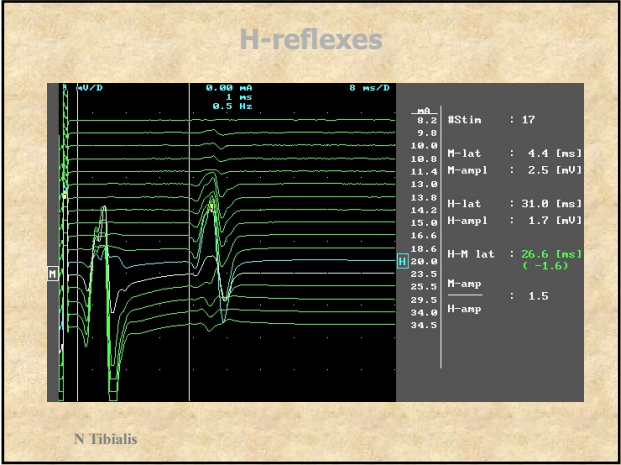
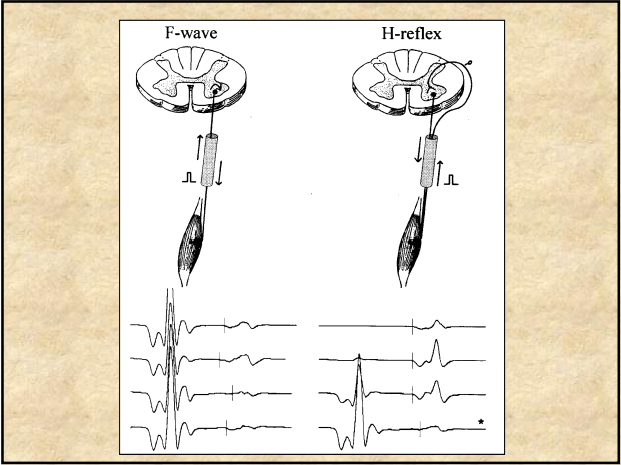




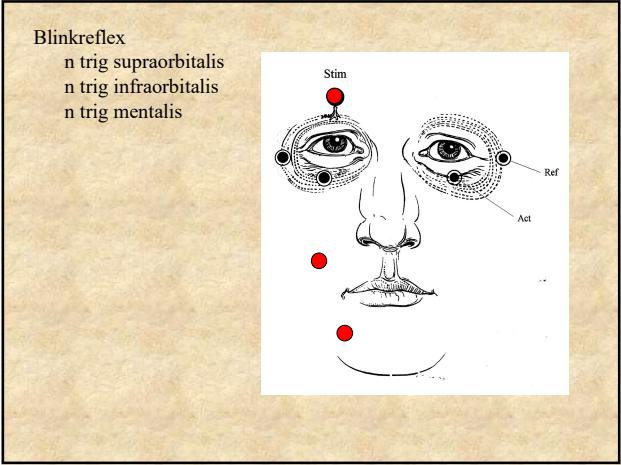
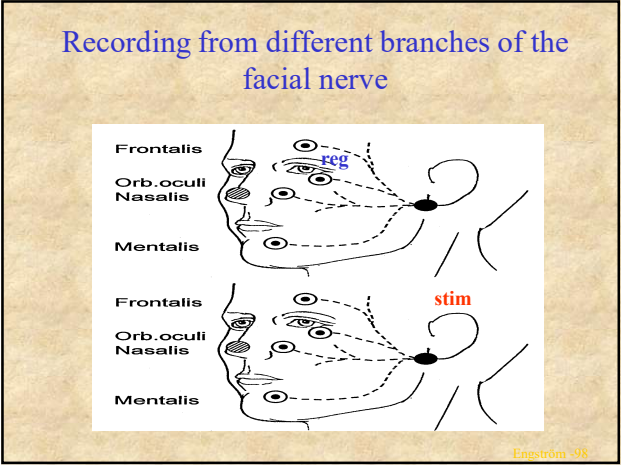


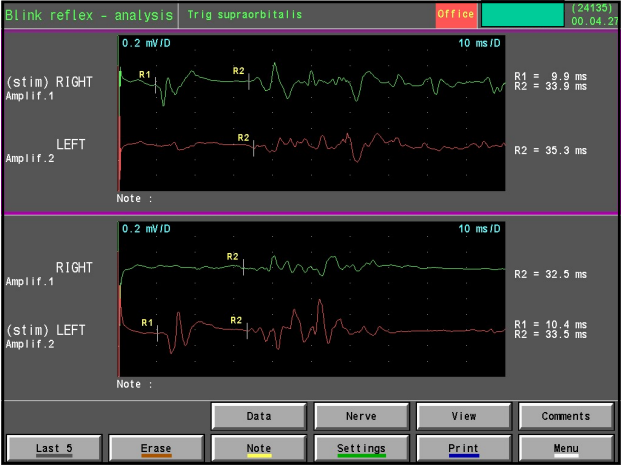
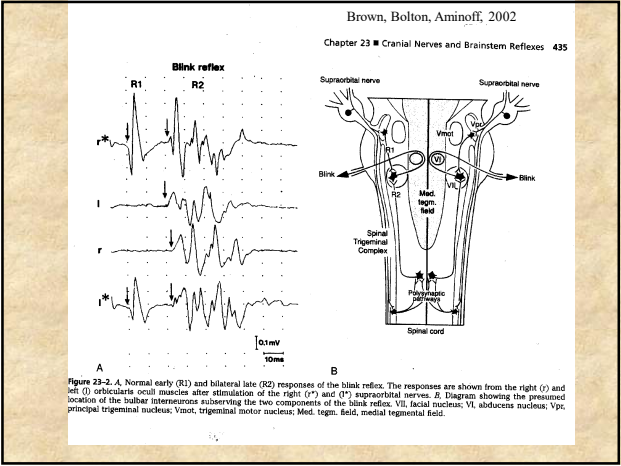
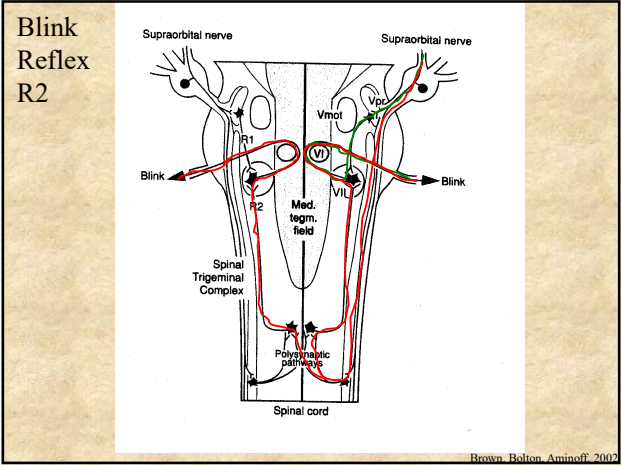
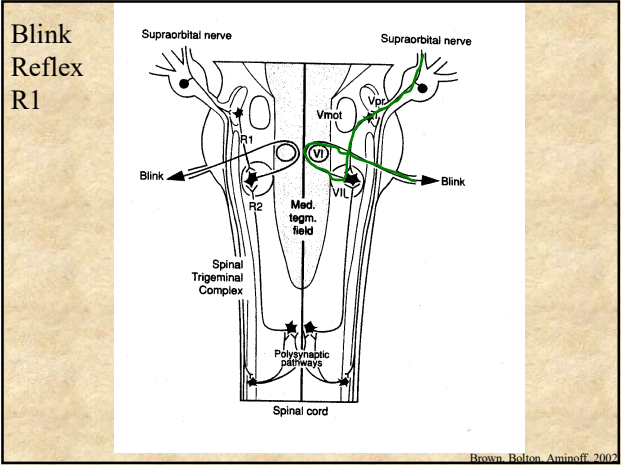
Reflexes





- ### H-reflex
- Stimulate Tibial nerve at the knee
    - stim strength low
    - duration 1.0 ms
    - frequency 0.5 Hz
  - Record over soleus/lat gastrocnemius muscle
  - Abnormal in:
    - S1 root
    - PNP
    - myelopathy





### Late components after the CMAP

Erik Stålberg, Uppsala Sweden

type	latency after CMAP		
	immediate	intermed	late
not relaxed, submax stim	X		
extra discharges	X		
myotonic discharges (PEMD)	X		
A-waves	X	X	(X)
CMAP-satellites	X	X	(X)
F-waves		X	
H-reflex		X	
flexion reflexes			X
ILR			X
C-waves			X