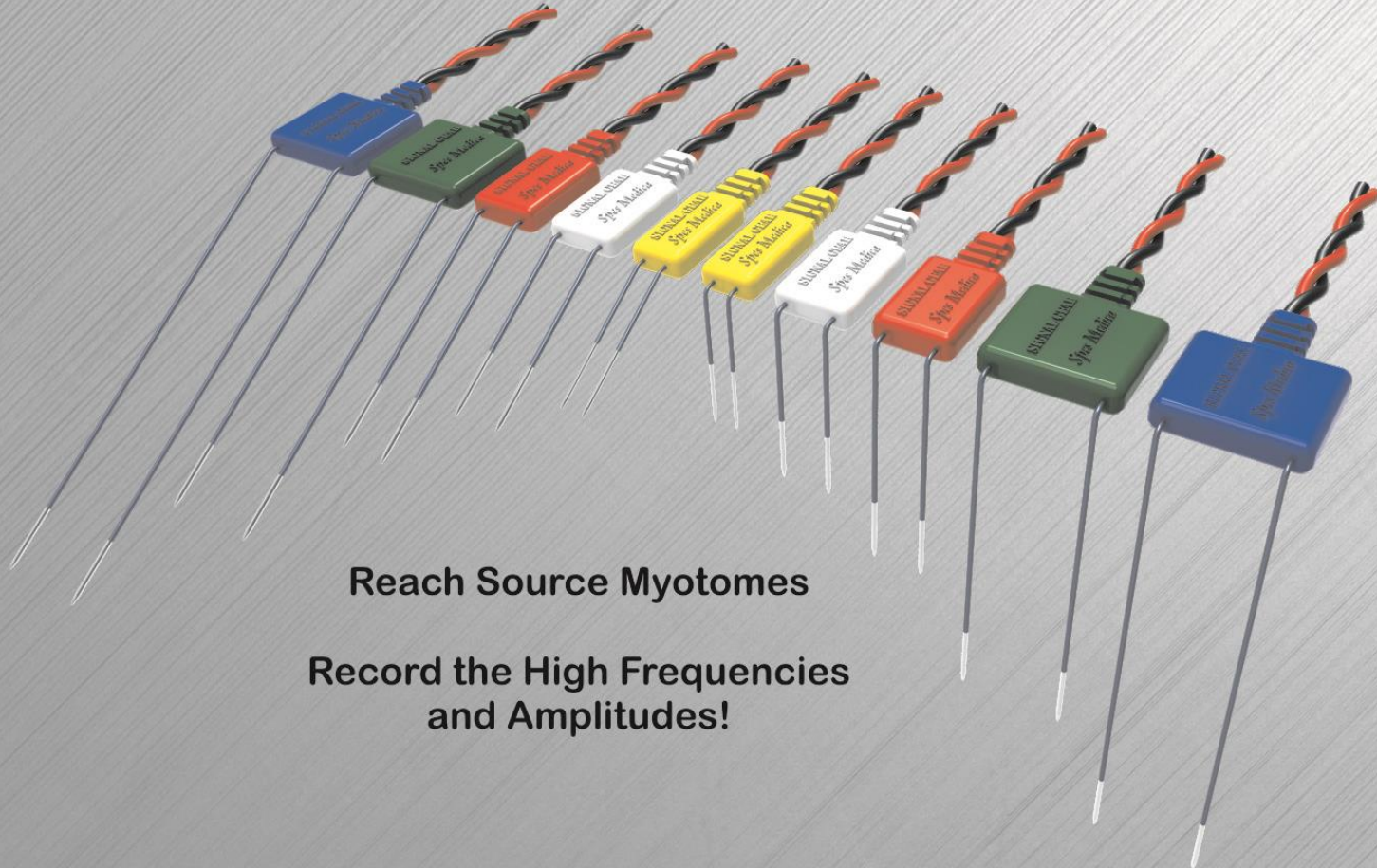


HOOK Intra-Muscular Needle Pairs



Reach Source Myotomes

**Record the High Frequencies
and Amplitudes!**

HIGHLIGHTS and ADVATAGES

Significant benefits in teh EMG amplitudes decrease

Removing of the high frequency morphologies

Low noise water with HOOKS

Physics Viewpoint on Intra-Muscular EMG And why you should try HOOKS

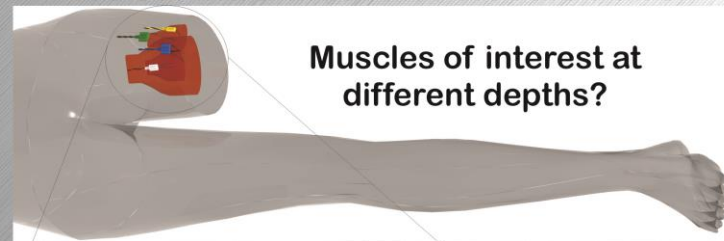


- EMG amplitudes decrease exponentially with distance from the source muscle... roughly by the square of the distance!

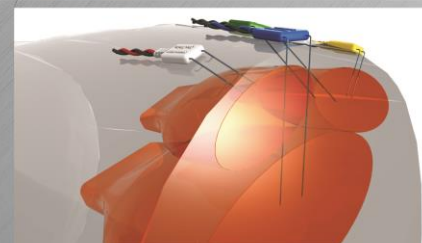
- Adipose tissue acts as a high frequency filter, removing the high frequency morphologies when recording on top of the fat pad.

Try HOOK Intra-Muscular Needle Pairs to reach those target myotomes and capture that high amplitude, high frequency EMG at the source!

HOOK Intra-Muscular Needle Pairs



Muscles of interest at different depths?



Go Fishing in High Amplitude, low noise water with HOOKS

HIGHLIGHTS and ADVATAGES


Low risk of bleeding thanks to the sharp knife edges

Why do some needles cause bleeding?
This is why we use conical tips!

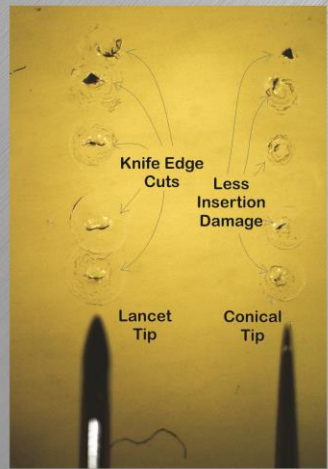
Needle designs with sharp knife edges cut through tissue, encouraging bleeding.

CONICAL NEEDLES are just as sharp or even sharper!

Knife Edges



Conical Tip Lancet Tip Trocar Tip



Knife Edge Cuts
Less Insertion Damage
Lancet Tip
Conical Tip

Leadwire retained


Tired of Needles Biting You?

Leadwire retained stress will always make single electrodes "springy" and ready to bite you!

HOOKs use twisted pair leadwires all the way to the hub. They do not spring and bite like single leadwires do

- so -

Make cleanup and needle counts easier...
use HOOKs!

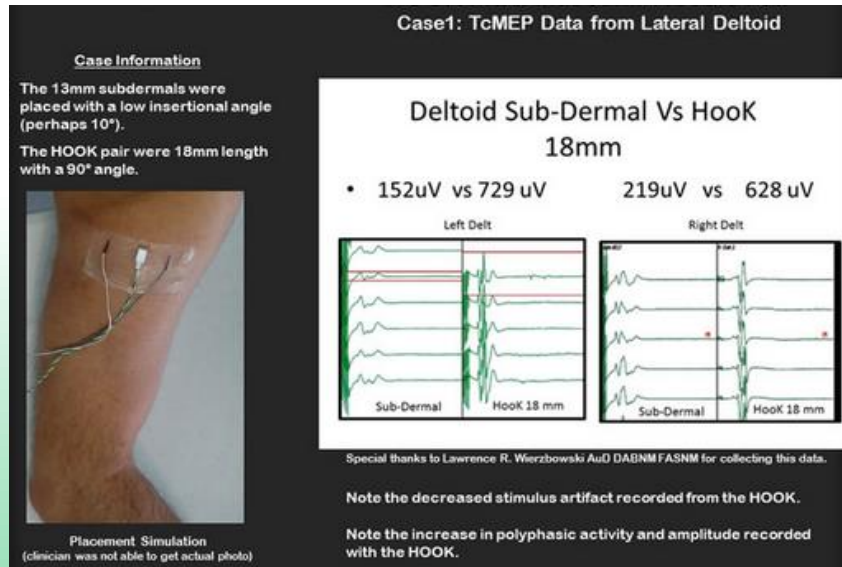


How many HOOKs do you see?
8 HOOKs

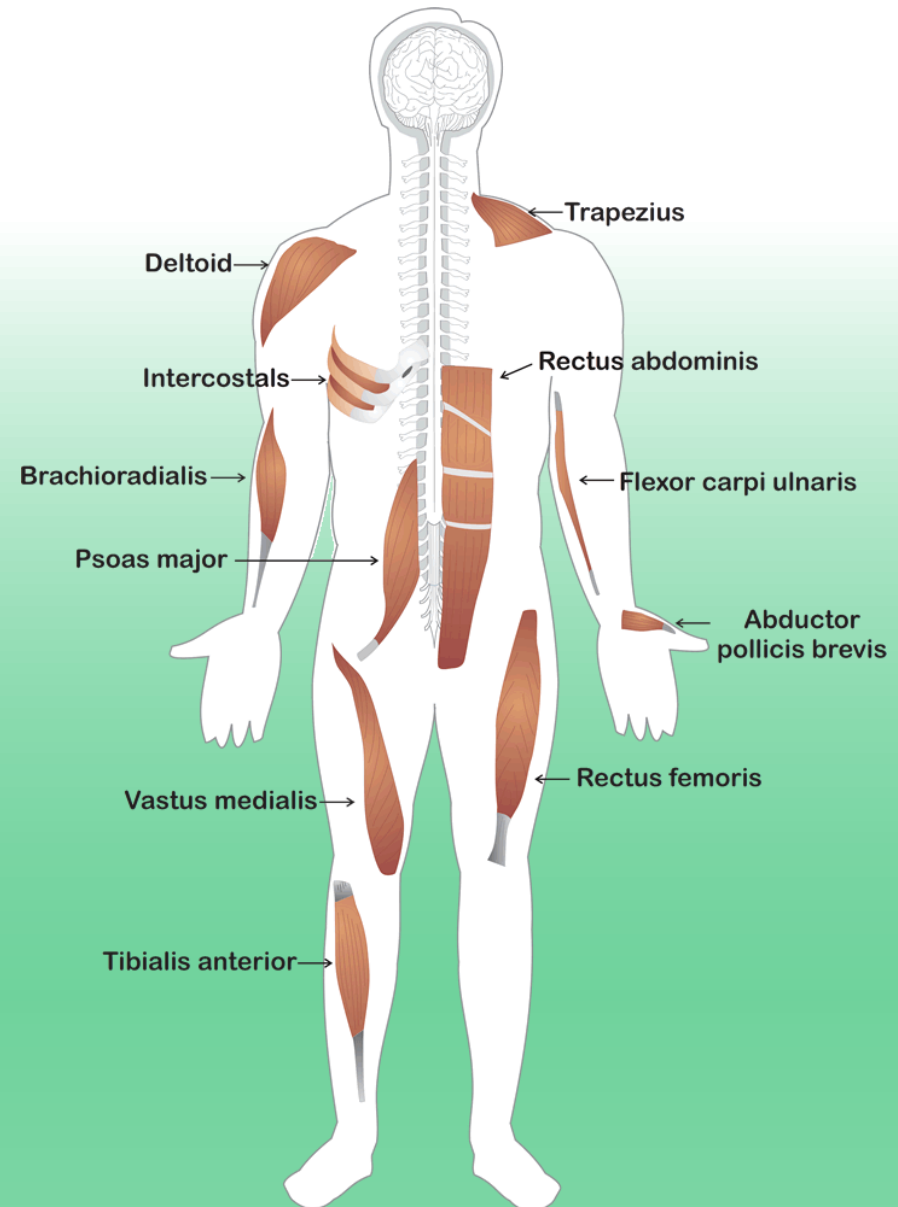
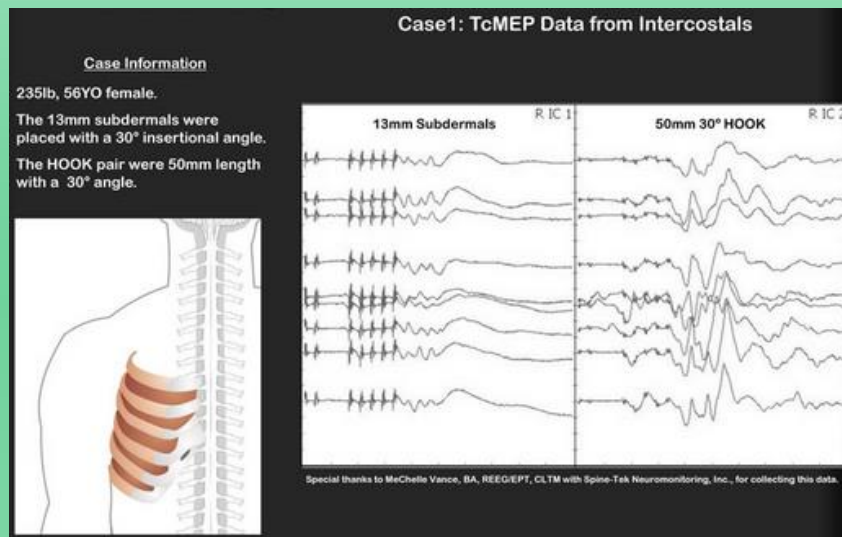
How many Subdermals do you see?
16 Subdermals

WHAT DATA YOU MAY RECORD

Deltoid

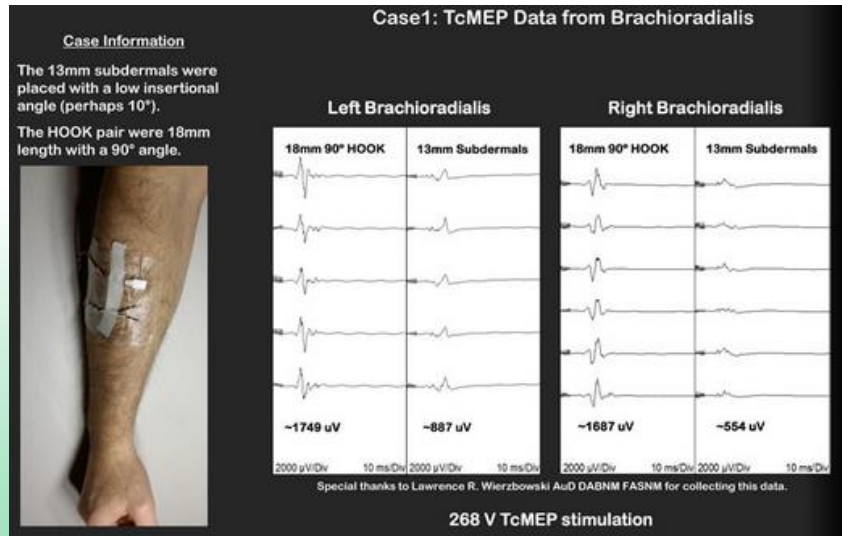


Intercostals

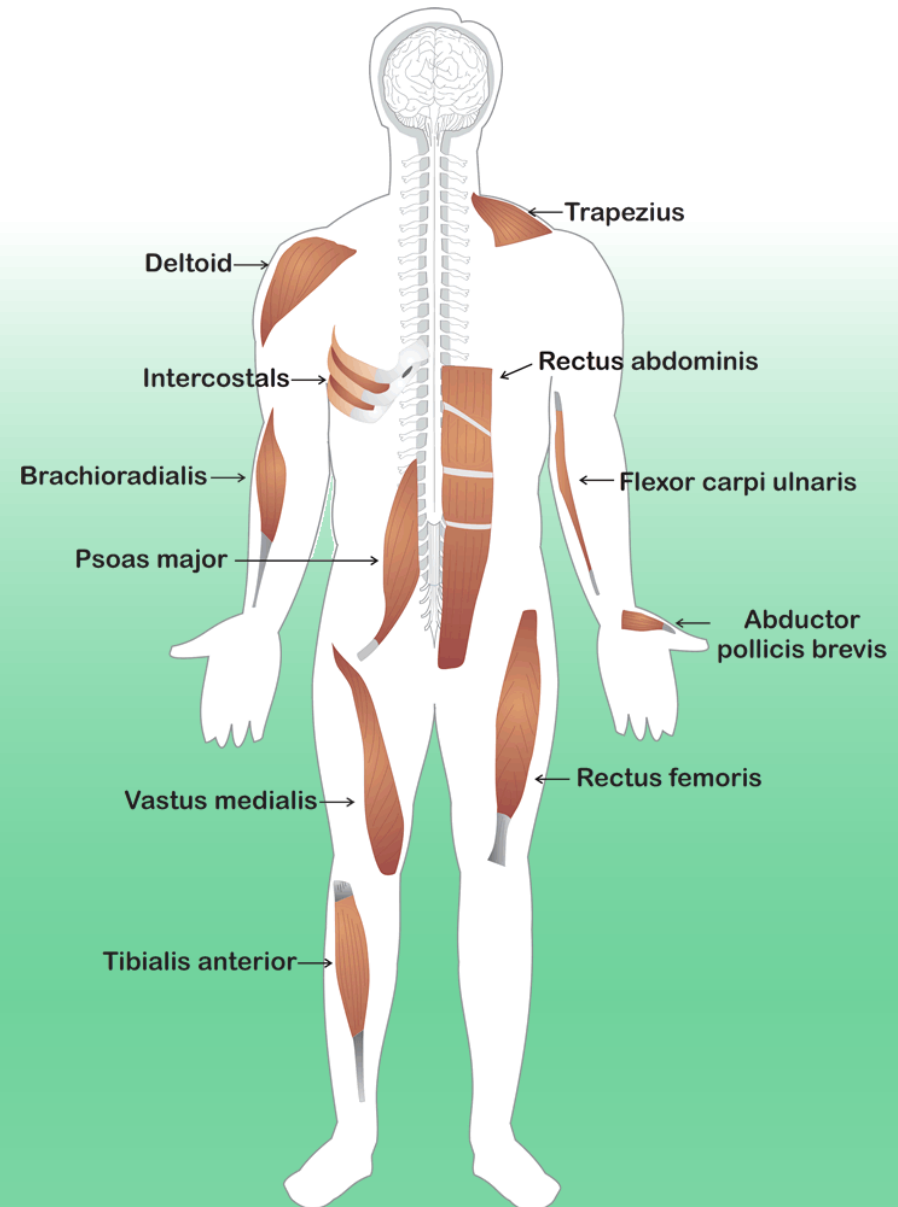
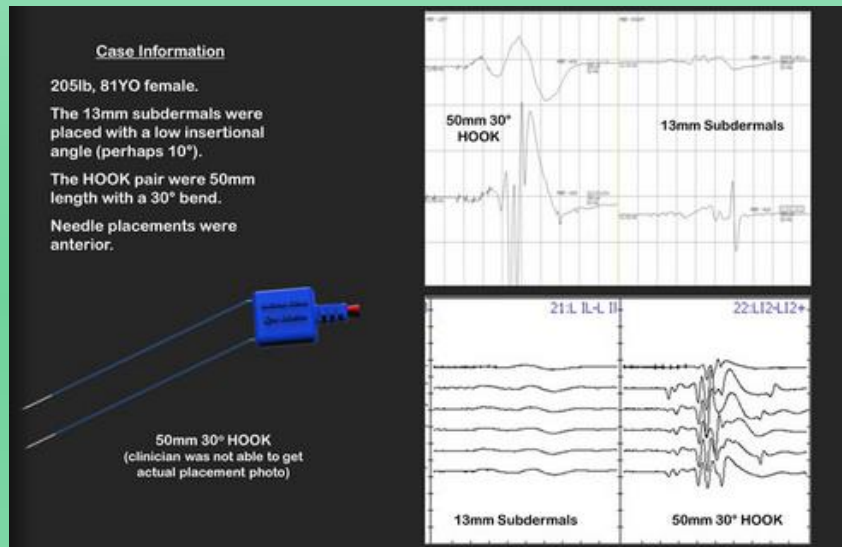


WHAT DATA YOU MAY RECORD

Brachioradialis

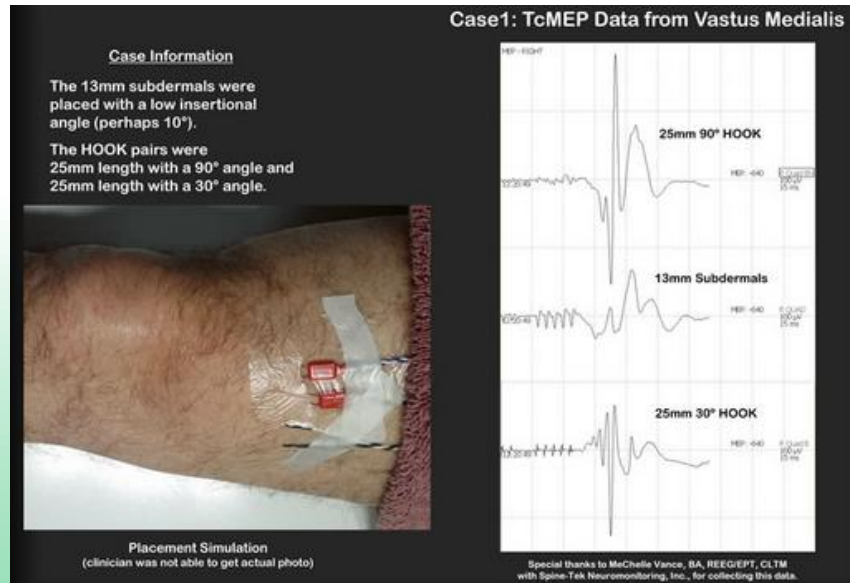


Psoas Major

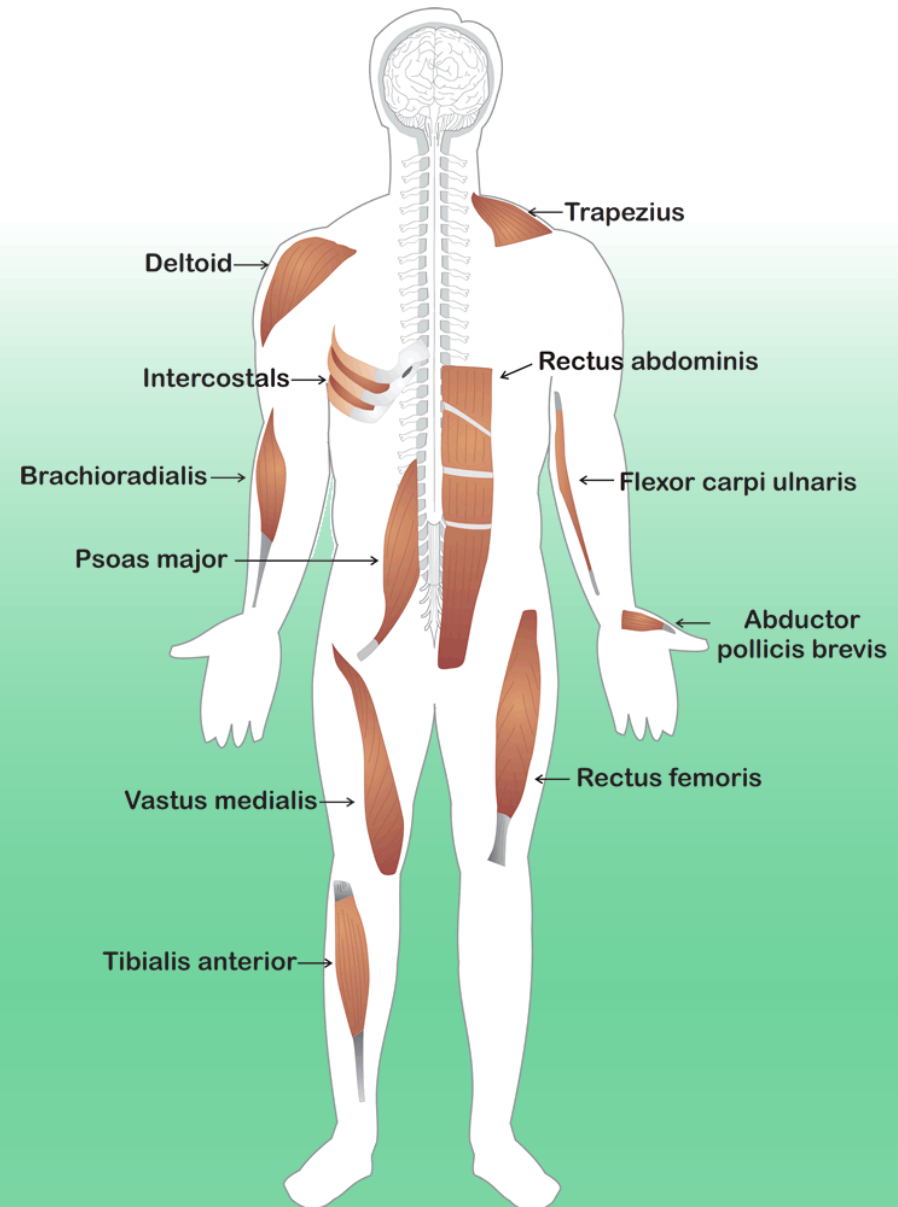
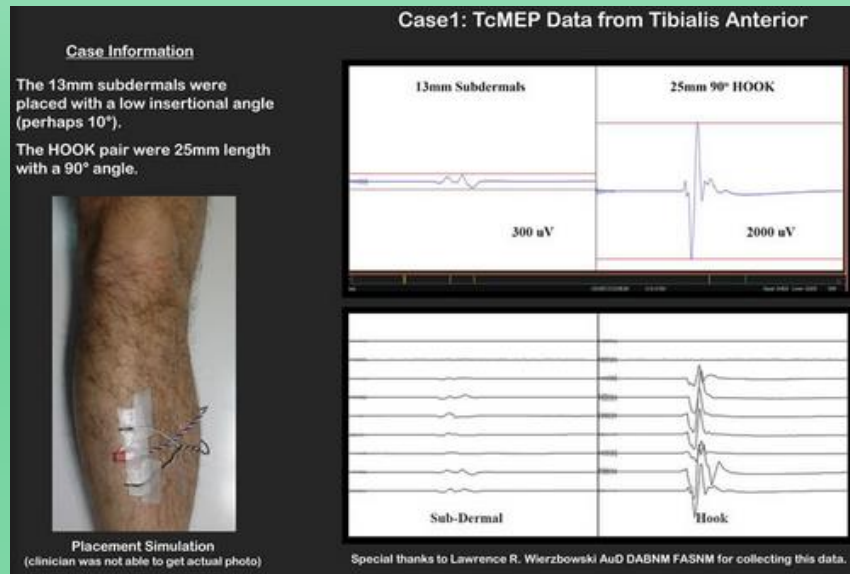


WHAT DATA YOU MAY RECORD

Vastus Medialis

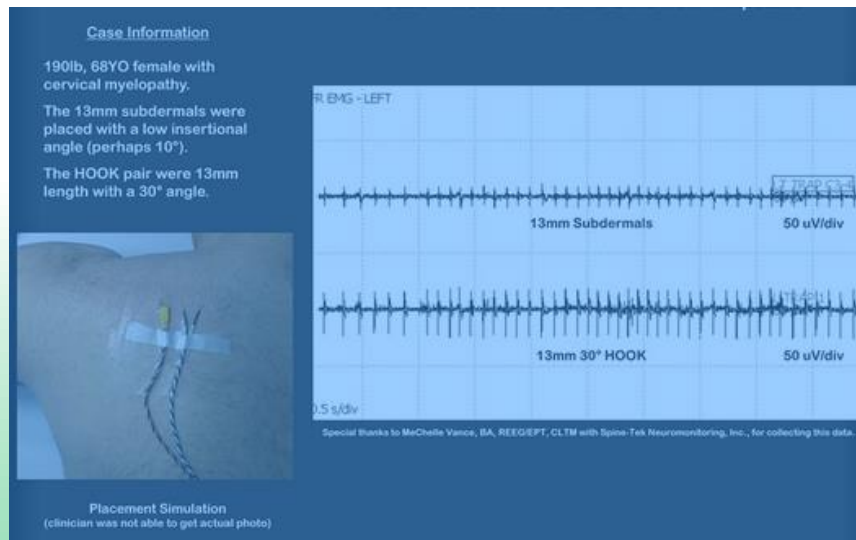


Tibialis anterior

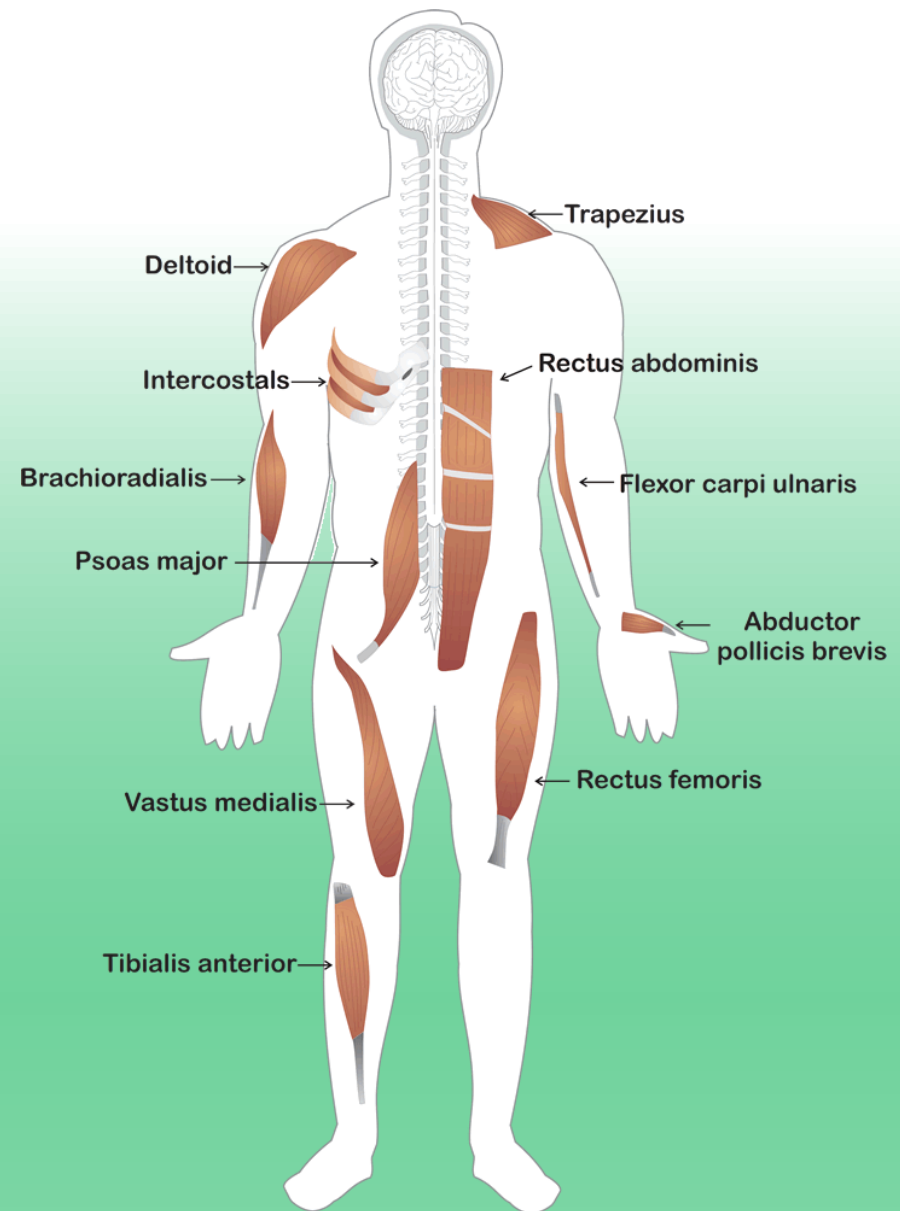


WHAT DATA YOU MAY RECORD

trapezius

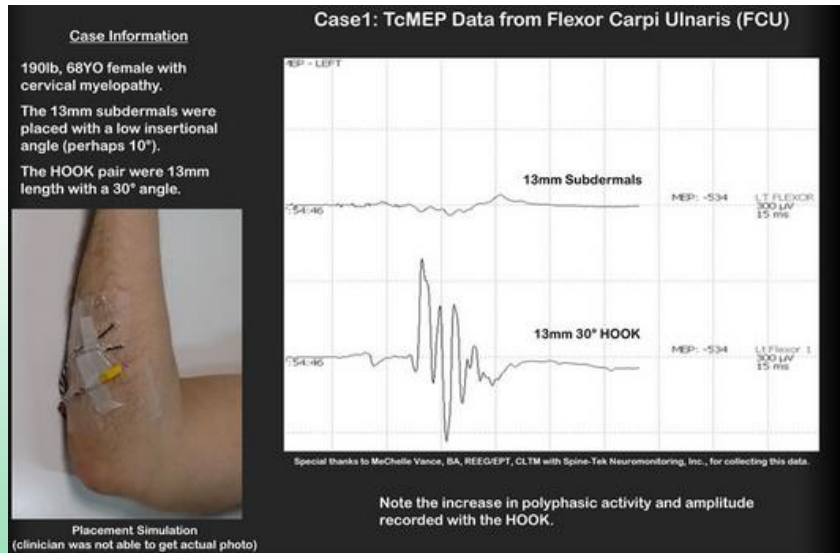


Rectus abdominis

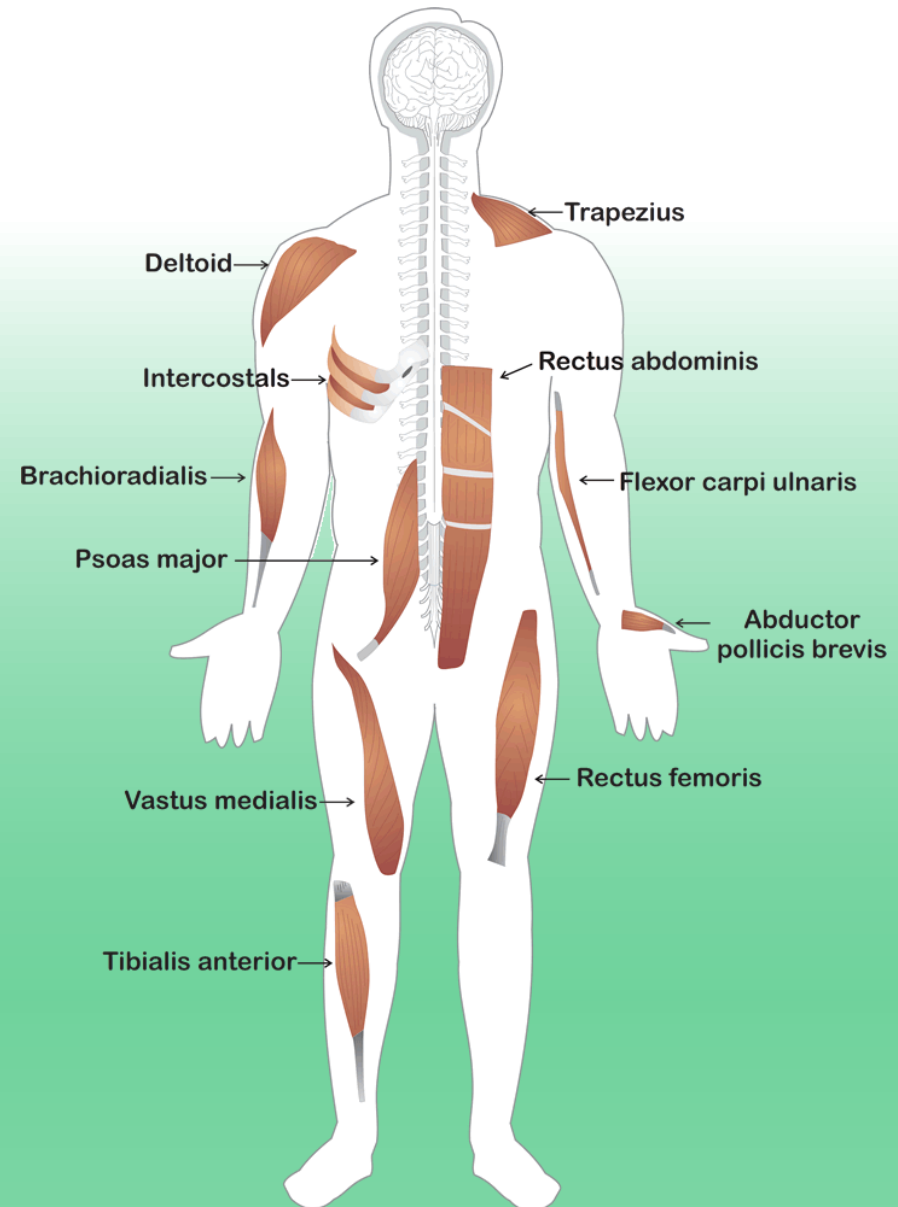
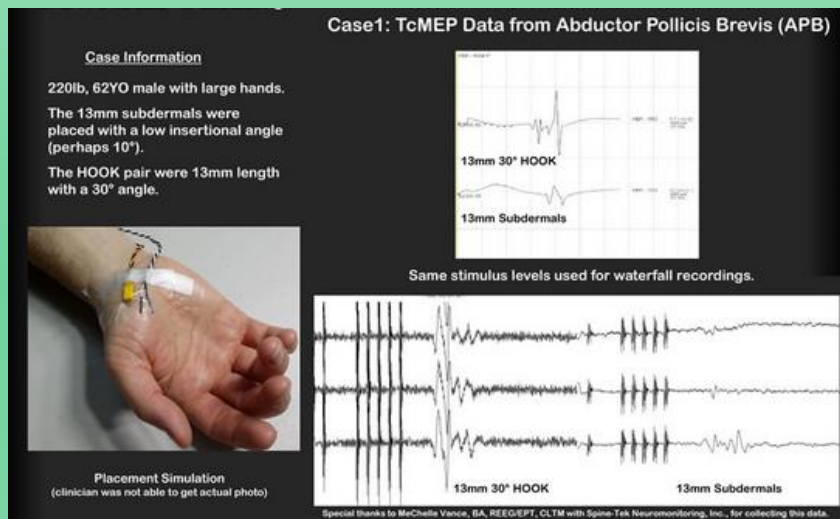


WHAT DATA YOU MAY RECORD

Flexor carpi ulnaris

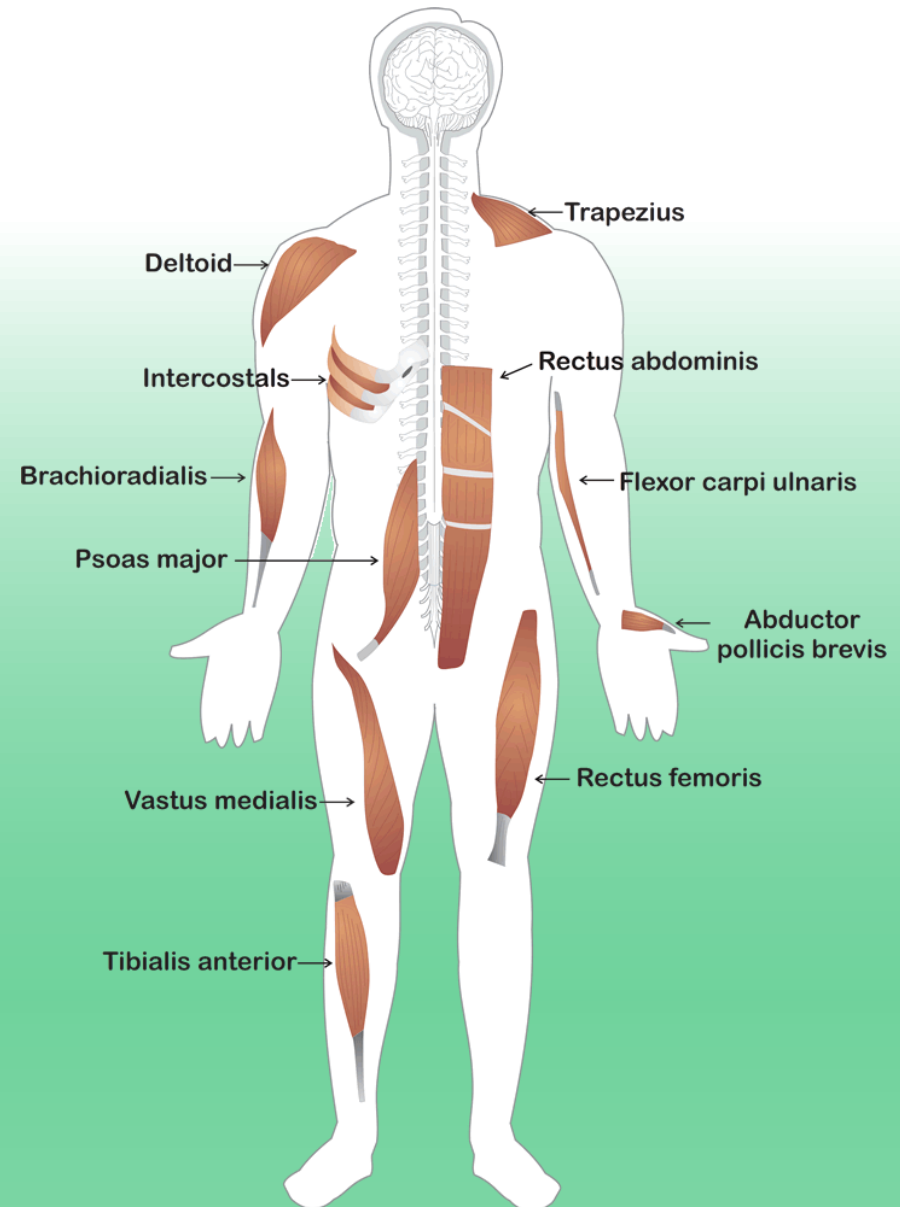
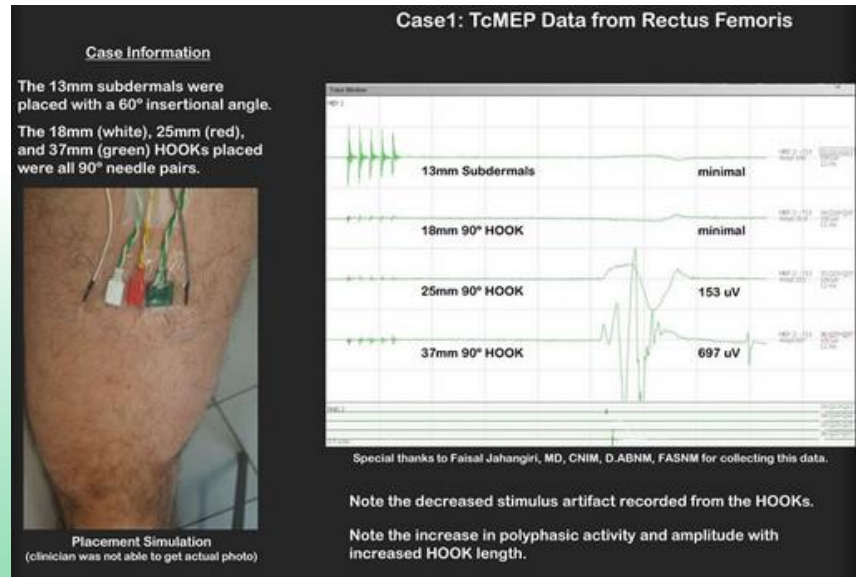


Abductor pollicis brevis

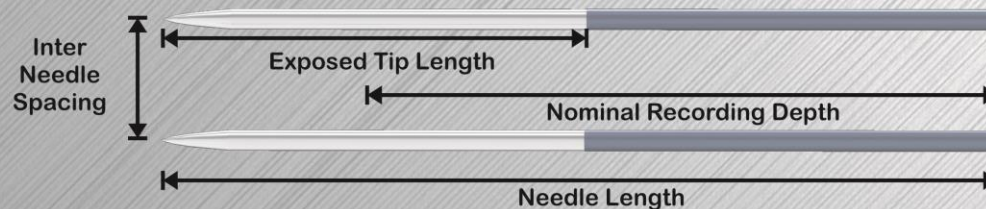


WHAT DATA YOU MAY RECORD

Rectus femoris



SIGNAL GEAR® HOOK Intra-Muscular Needle Pairs



	Needle Length	Inter-Needle Spacing	Nominal Recording Depth*	Exposed Tip Length	Needle Diameter
Yellow 90°	13mm (0.5")	2.5mm (0.1")	10mm	6mm (0.25")	0.35mm (28Ga)
White 90°	18mm (0.7")	5mm (0.2")	15mm	6mm (0.25")	0.45mm (26Ga)
Red 90°	25mm (1")	5mm (0.2")	22mm	6mm (0.25")	0.45mm (26Ga)
Green 90°	37mm (1.5")	10mm (0.4")	34mm	6mm (0.25")	0.45mm (26Ga)
Blue 90°	50mm (2")	10mm (0.4")	47mm	6mm (0.25")	0.45mm (26Ga)
Yellow 30°	13mm (0.5")	2.5mm (0.1")	4.5mm	6mm (0.25")	0.35mm (28Ga)
White 30°	18mm (0.7")	5mm (0.2")	6.5mm	6mm (0.25")	0.45mm (26Ga)
Red 30°	25mm (1")	5mm (0.2")	10mm	6mm (0.25")	0.45mm (26Ga)
Green 30°	37mm (1.5")	10mm (0.4")	16mm	6mm (0.25")	0.45mm (26Ga)
Blue 30°	50mm (2")	10mm (0.4")	22.5mm	6mm (0.25")	0.45mm (26Ga)

*Nominal Recording Depth: Midpoint of 6mm conductors when fully inserted
Straight HOOKs (0°) available by special order.

855-4EZ GEAR
439 4327

www.signalgear.com

FURTHER INFORMATIONS

For further informations you may want to visit our website

<http://www.signalgear.com/hook-intra-muscular-needle-pair.php>

The link will introduce you to the new hooks through a video that will show the benefits, how to use it and the signal comparison with the traditional intra muscular EMG needles