

PERFUSION ACROSS SCALES IN ME/CFS: FROM CAPILLARY DENSITY TO CEREBRAL BLOOD FLOW

MIRACLE
ENLIGHTEN ME/CFS



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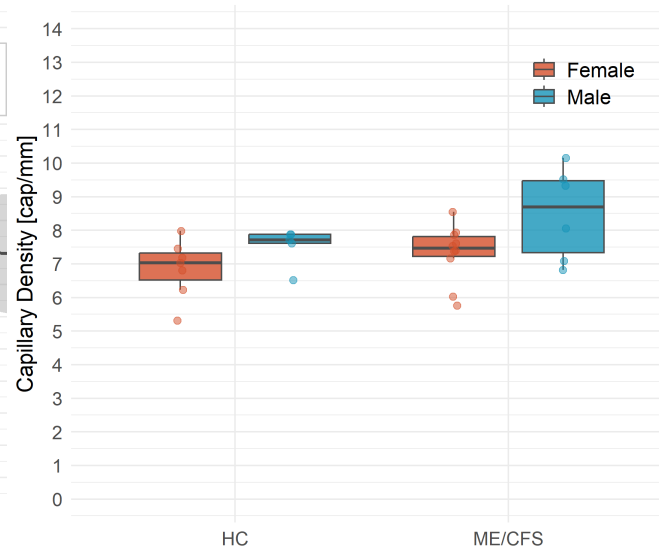
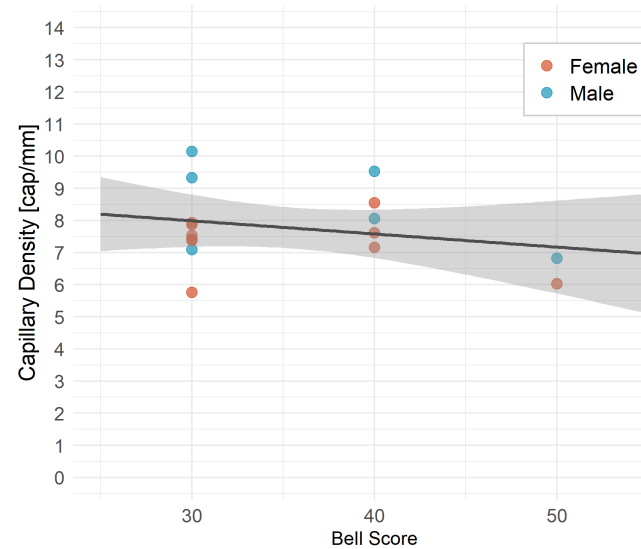
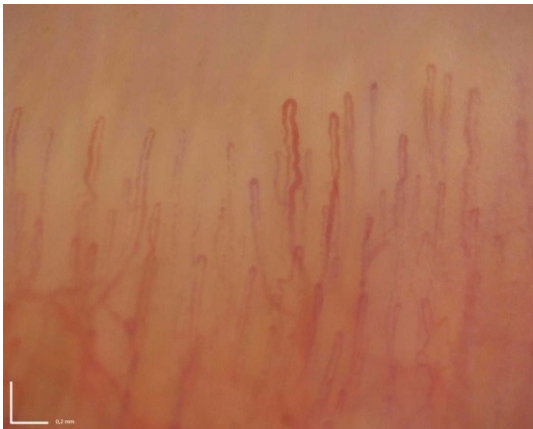
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Microvascular Changes in ME/CFS: First Insights via Capillaroscopy

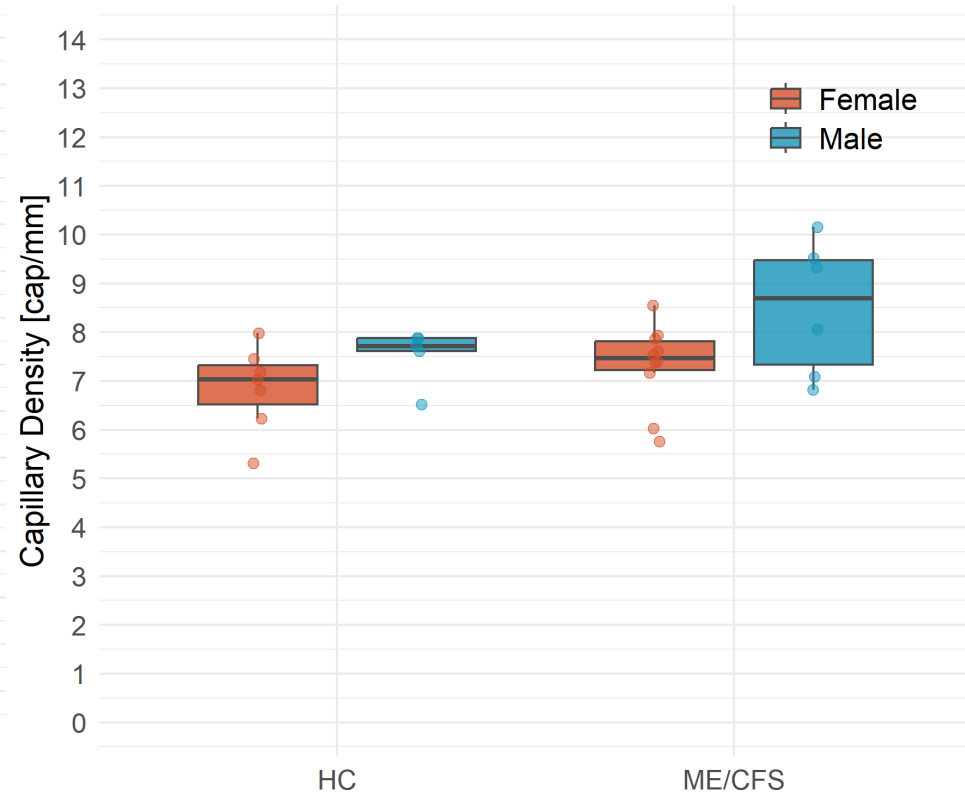
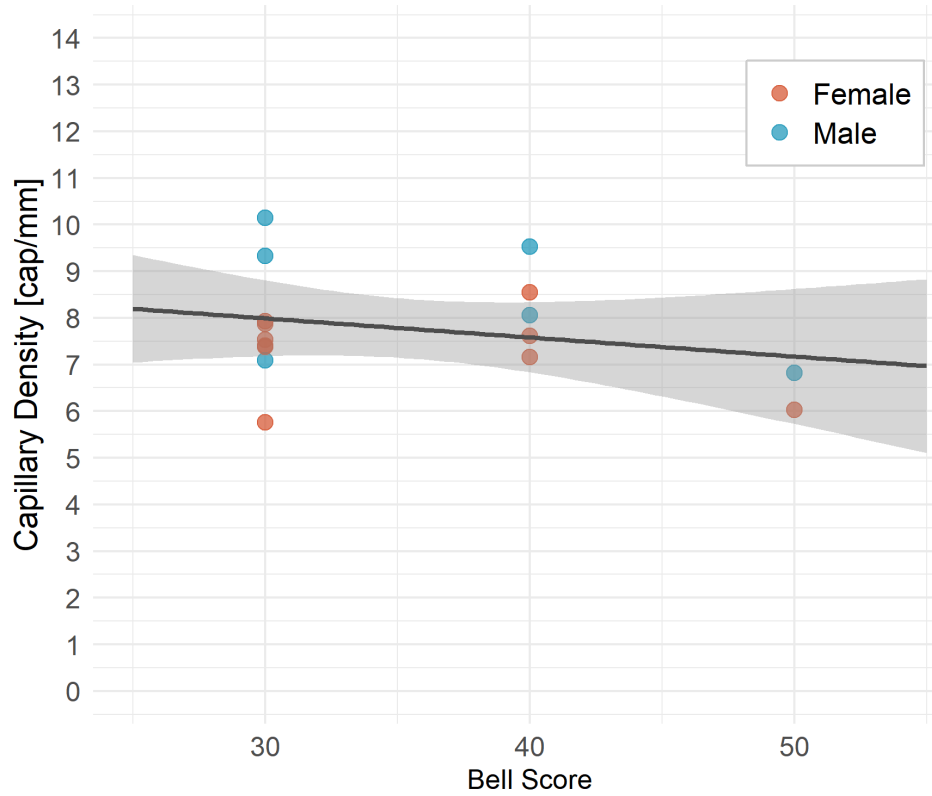


- Vascular dysregulation has repeatedly been described in ME/CFS
- Peripheral capillary microscopy (Dino-Lite MEDL4N Pro) across digits II-V
- 36 ME/CFS 25 healthy controls [HC] included
- 16 ME/CFS 12 HC analyzed
- Capillary density (capillaries/mm) and associations with certain potential influential factors e.g. Bell.Score were explored → 9,795 usable capillary measurements





0,2 mm

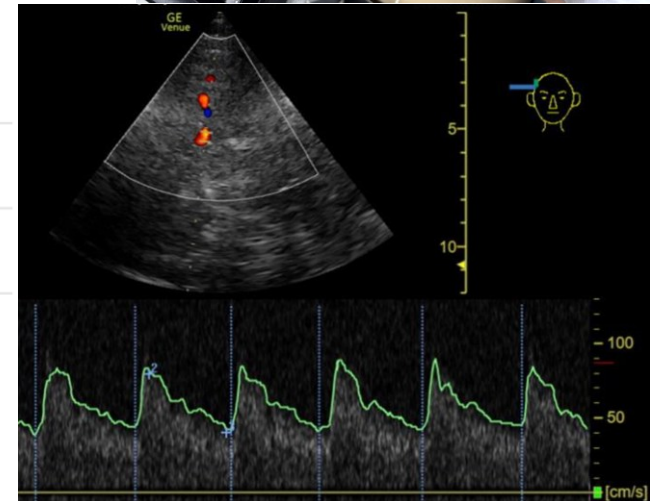
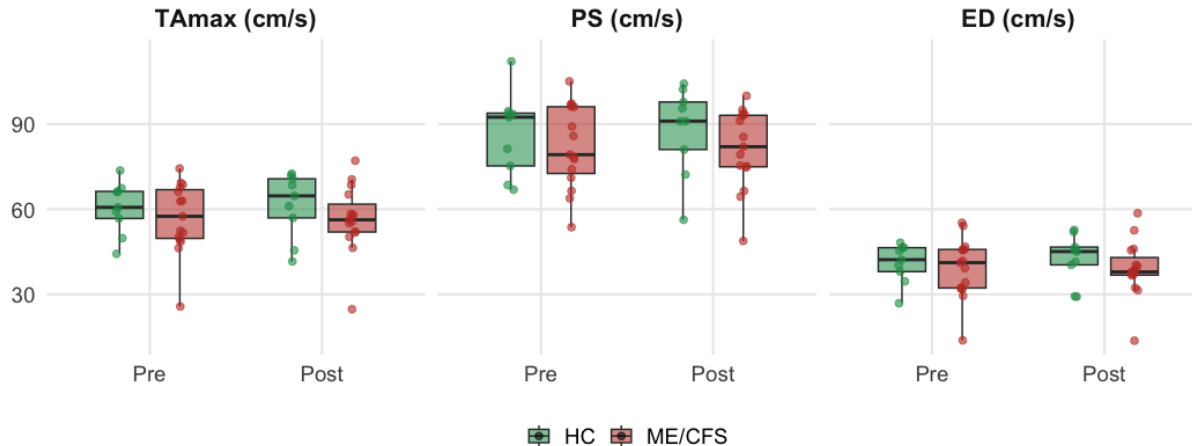


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Cerebral Blood Flow Alterations: Transcranial Doppler

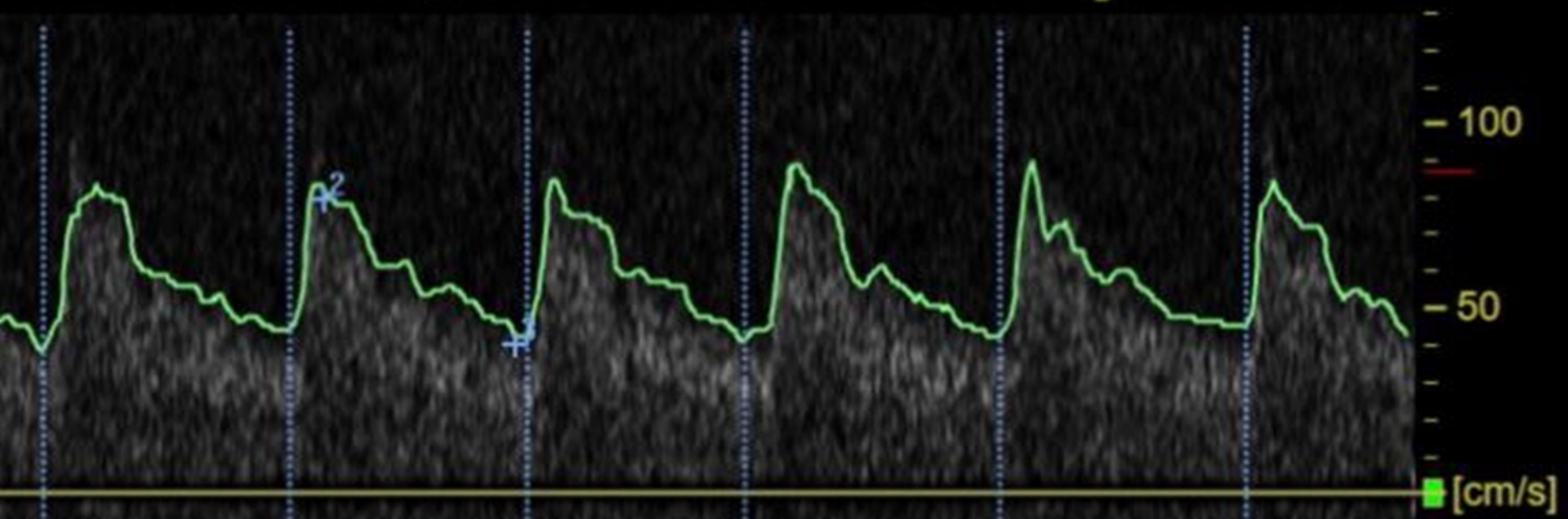
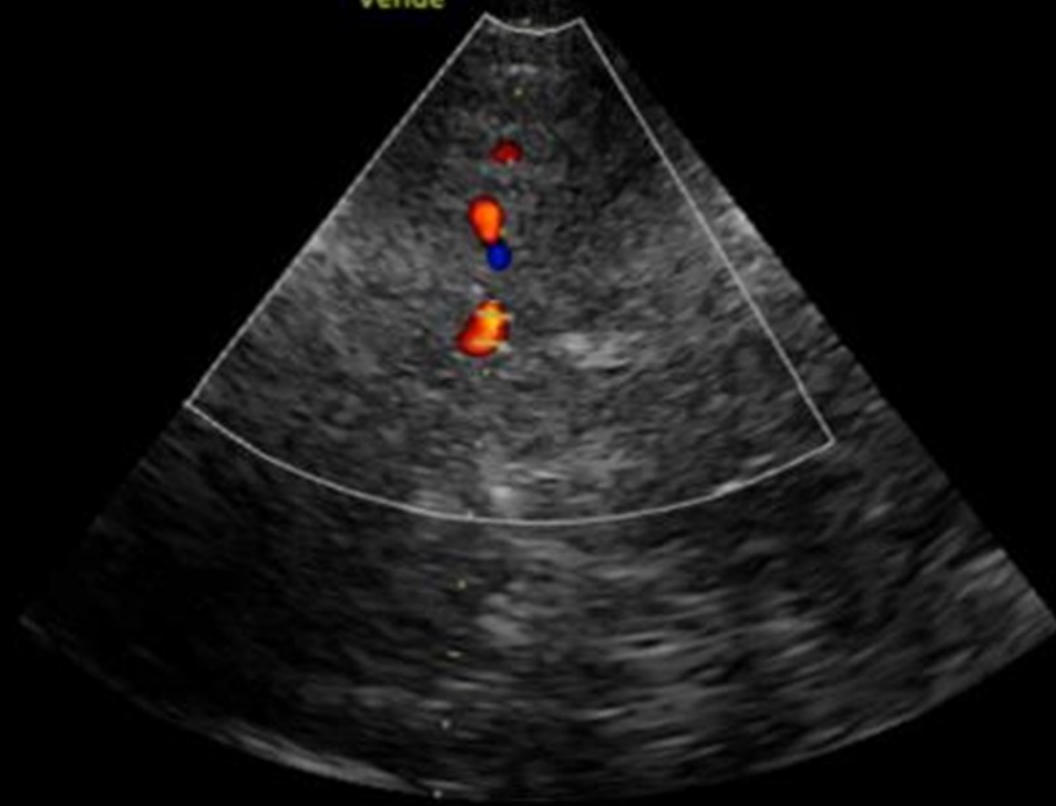
- 15 ME/CFS 9 HC
- Bilateral MCA flow velocities (time-averaged maximum velocity (TAm_{ax}), peak systolic velocity (PS), and end-diastolic velocity (ED)) in prox/mid/dist
- Baseline + post 10-minute standing in identical protocol

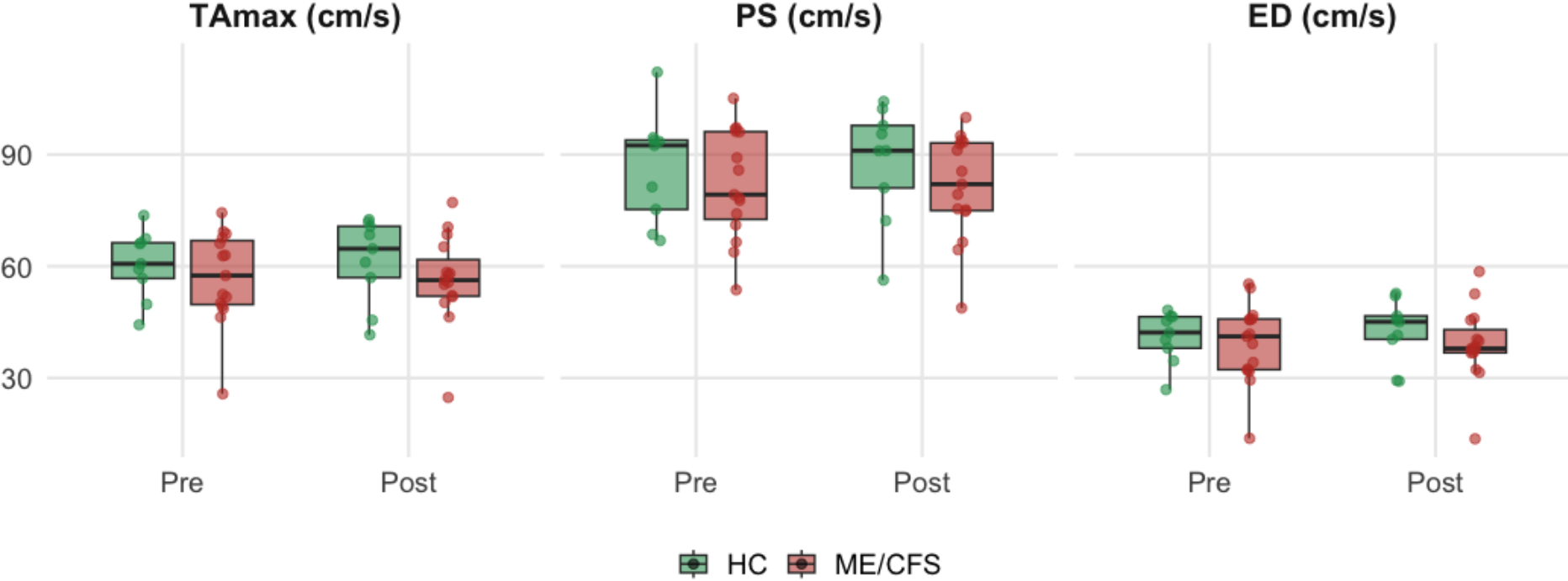
Cerebral blood flow: HC vs. ME/CFS before and after standing test



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Towards a Multimodal Diagnostic Approach



Handgrip strength –
Fatigability

Pupillometry –
Autonomic reaction



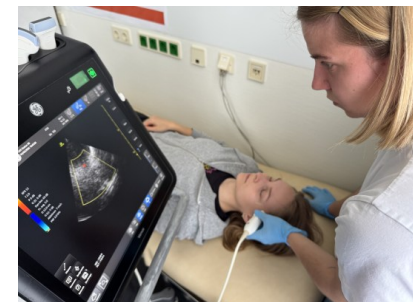
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DEVELOPMENT OF A MULTIMODAL DIAGNOSTIC SCORE



Capillaroscopy –
Capillary density

Transcranial doppler –
Cranial Blood Flow



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