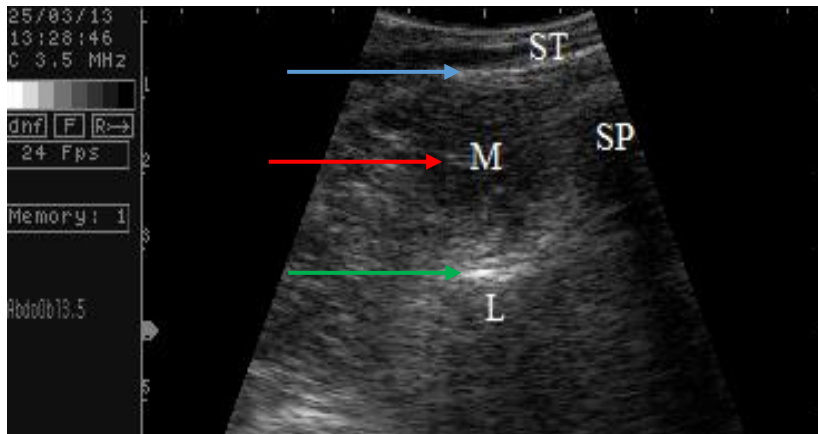


## Ultrasound scan of lumbar multifidus in healthy adult male



ST: subcutaneous tissue  
SP: spinous process  
M: multifidus muscle  
L: lamina or vertebra  
Scale on left side = depth in cm

Scan from M. Stokes, University of Southampton

### Multifidus muscle thickness at 4<sup>th</sup> lumbar vertebra

Superficial boarder (blue arrow) = approx. 0.5 cm from skin

Middle of muscle belly (red arrow) = approx. 2cm (1.5 cm from skin)

Inferior border over lamina (green arrow) = approx. 3.5 cm from skin (muscle thickness 3 cm)

### Resting thickness of Multifidus Muscle results from Teyhen et al 2012

Males (n=244) 3.11 cm  $\pm$  0.45 (mean, standard deviation)

Females (n=96) 2.67 cm  $\pm$  0.36

Measured from longitudinal scans over the L4-L5 facet joint

### Reference

Teyhen DS, Childs JD, Stokes MJ, Wright AC, Dugan JL, George SZ. Abdominal and lumbar multifidus muscle size and symmetry at rest and during contracted states: normative reference ranges. *Journal of Ultrasound in Medicine* 2012; 31:1099-1110. <https://doi.org/10.7863/jum.2012.31.7.1099>