

Supplementary material

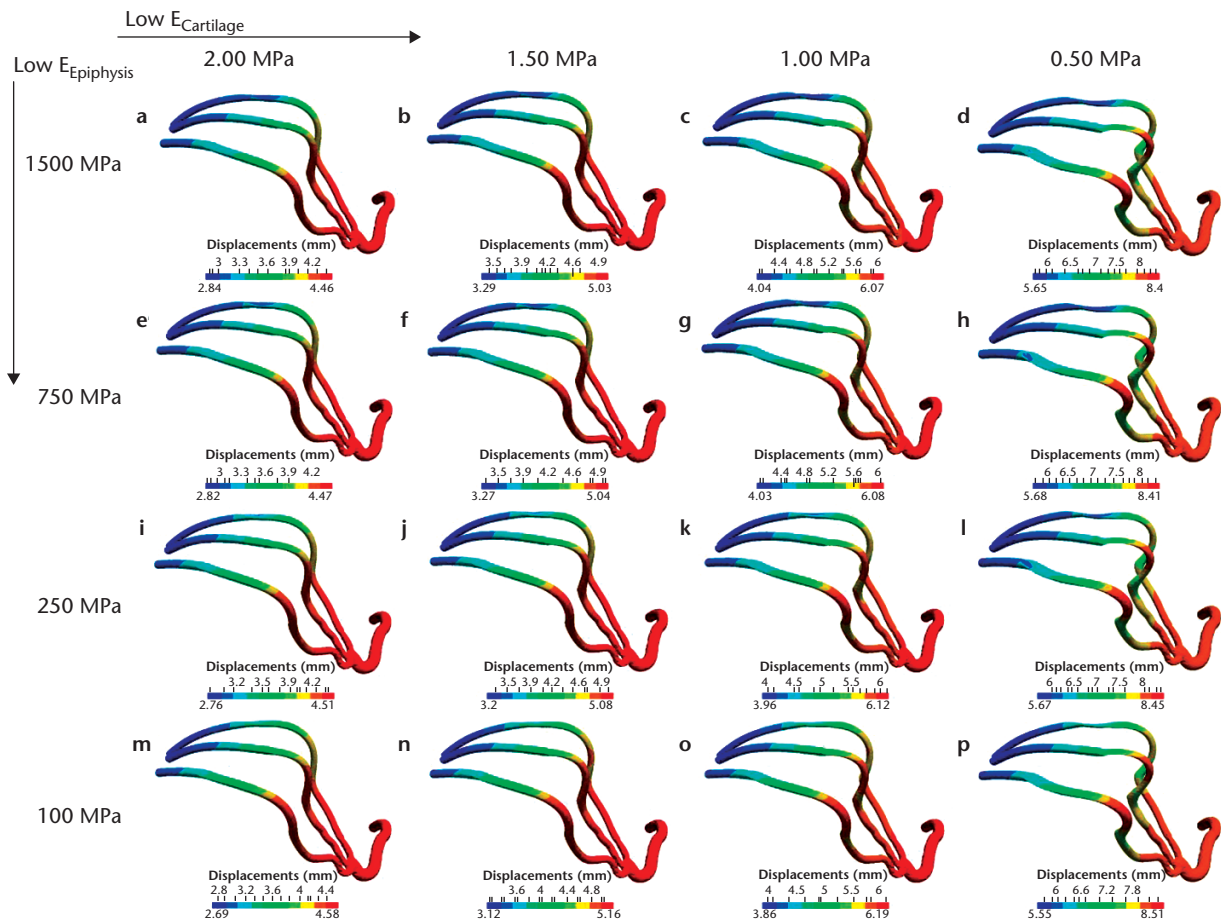


Fig. a

Displacements across the three main terminal branches of the deep MFCA for a skeletally immature femoral epiphysis and an: a) to d) $E_{epiphysis} = 1500$ MPa and $E_{cartilage} = 2.00 - 0.50$ MPa; e) to h) $E_{epiphysis} = 750$ MPa and $E_{cartilage} = 2.00 - 0.50$ MPa; i) to l) $E_{epiphysis} = 250$ MPa and $E_{cartilage} = 2.00 - 0.50$ MPa; and m) to p) $E_{epiphysis} = 100$ MPa and $E_{cartilage} = 2.00 - 0.50$ MPa.

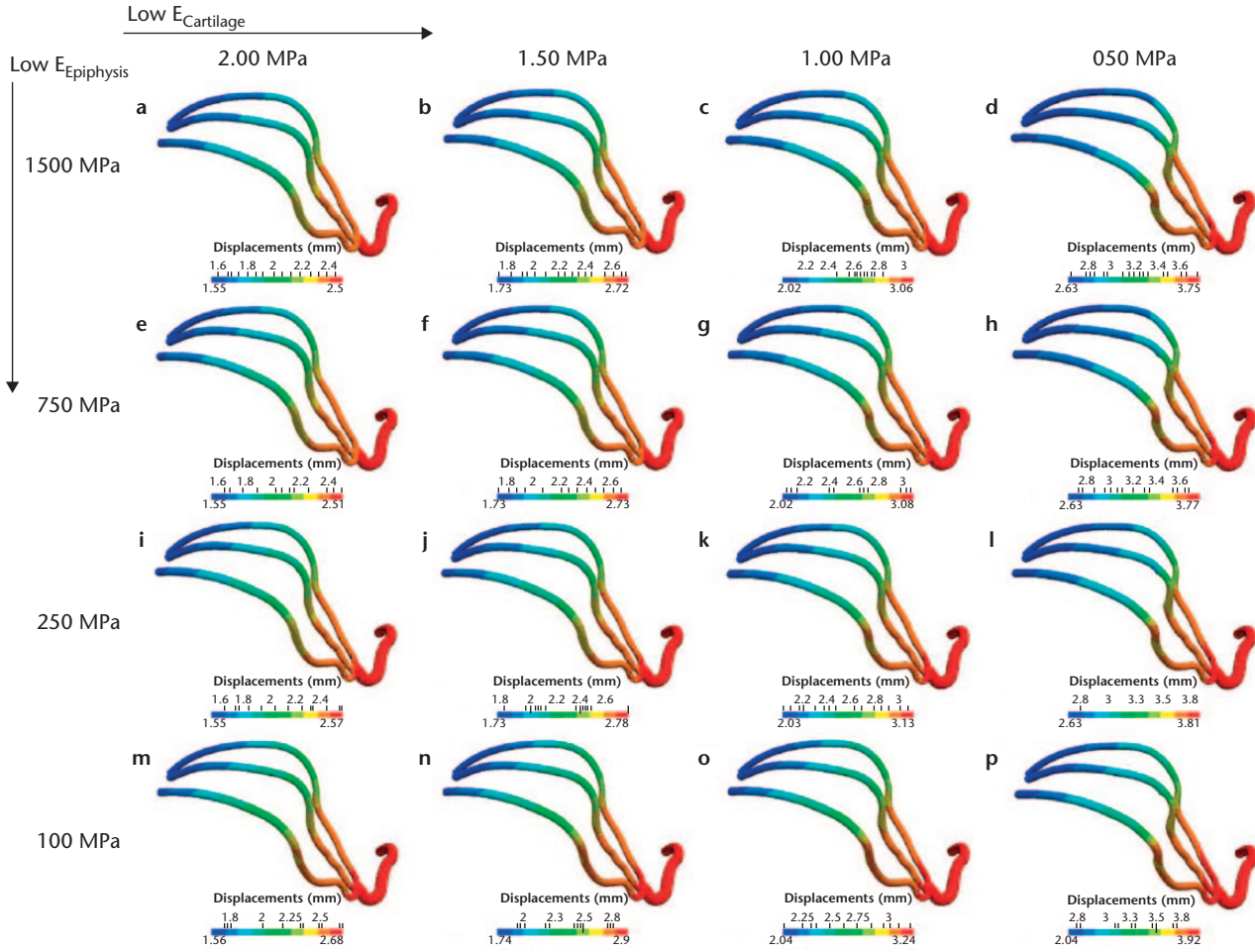


Fig. b

Displacements across the three main terminal branches of the deep MFCa for a normal femoral epiphysis and an: a) to d) $E_{\text{epiphysis}} = 1500$ MPa and $E_{\text{cartilage}} = 2.00 - 0.50$ MPa; e) to h) $E_{\text{epiphysis}} = 750$ MPa and $E_{\text{cartilage}} = 2.00 - 0.50$ MPa; i) to l) $E_{\text{epiphysis}} = 250$ MPa and $E_{\text{cartilage}} = 2.00 - 0.50$ MPa; and m) to p) $E_{\text{epiphysis}} = 100$ MPa and $E_{\text{cartilage}} = 2.00 - 0.50$ MPa.