

Figure S1 Localization diagrams for 30 mm cubic VOI measurements of the left quadriceps femoris, including the lesser trochanter. The central slice was positioned approximately 8 cm (the length of the green line ≈ 8 cm) below the lower border of the lesser trochanter (white dashed line). The size of the cubic VOI is $30 \times 30 \times 30 \text{ mm}^3$ (the length of the yellow line = 3 cm). The subject depicted in this image is identical to the individual featured in *Figure 2A*. VOI, volume-of-interest.

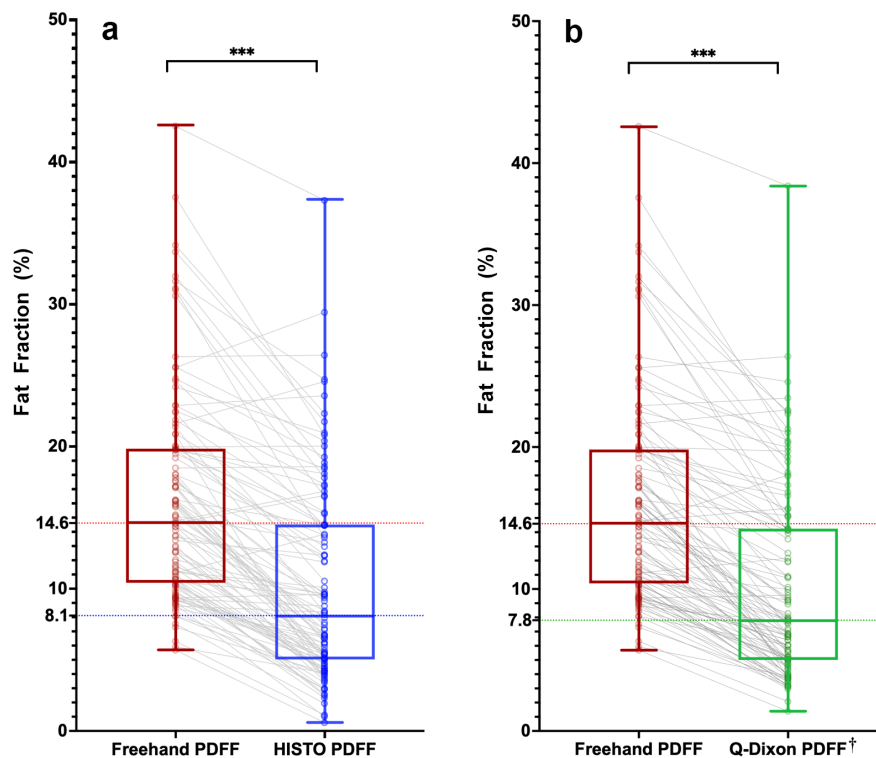


Figure S2 Box plots of PDFF values comparing different measurement techniques. (A) Comparison between Q-Dixon freehand VOI PDFF and HISTO MRS PDFF. (B) Comparison between Q-Dixon freehand VOI PDFF and Q-Dixon cubic VOI PDFF. The Wilcoxon signed-rank test with Bonferroni correction was used to evaluate the differences. †, Q-Dixon cubic VOI PDFF; ***, $P < 0.001$. PDFF, proton density fat fraction; Q-Dixon, quantitative Dixon; VOI, volume-of-interest; HISTO, high-speed T2-corrected multi-echo; MRS, magnetic resonance spectroscopy.