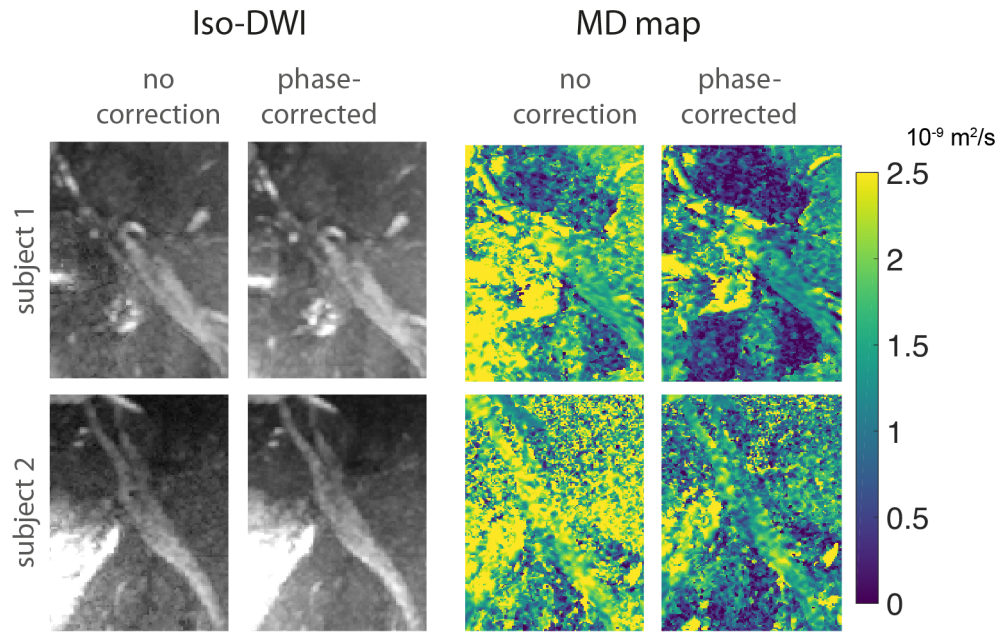


Supporting Figure S1: Illustrated procedure for localizing the sciatic nerves for DTI analysis. Sagittal, coronal and axial reformats of iso-diffusion-weighted images (iso-DWIs) from coronal data acquired with DP 3D TSE and from axial data acquired with DW ss-EPI were created. The femoral head was localized in the sagittal view and the left-right (LR), anterior-posterior (AP) and feet-head (FH) positions of its base were marked. The marked position of the femoral-head base was found and referenced in the coronal view. The sciatic nerve at the marked FH position of the femoral-head base was localized in the coronal view and its LR and AP positions were marked. The marked FH, LR and AP positions of the sciatic nerve were used to localize the nerve in the axial view. The localization procedure was carried out individually for left and right sciatic nerves for each subject.



Supporting Figure S2: Effect of motion-induced phase errors in diffusion quantification with DP 3D TSE. Iso-diffusion-weighted images (iso-DWIs) of two healthy subjects obtained with DP 3D TSE show losses of signal in the sciatic nerve and surrounding muscle when the correction of motion-induced phase errors is not performed. Corresponding mean diffusivity (MD) maps show the overestimation of diffusivity values in nerve and muscle caused by motion-induced phase errors. Unusually high MD values in some regions result from the incompletely suppressed signal of vessels and CSF fluid.